



REGIONAL DISTRICT  
NORTH OKANAGAN

Electoral Area F – Rural Enderby

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# Community Wildfire Resiliency Plan 2025

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## Registered Professional Signature and Seal

*This Community Wildfire Resiliency Plan has been prepared for the Regional District of North Okanagan Electoral Area F (Rural Enderby).*

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## Acknowledgments

The Regional District of North Okanagan (RDNO) is located in the southern interior of British Columbia and spans a diverse landscape that includes lakes, valleys, grasslands, and forested hills. The region covers approximately 7,500 km<sup>2</sup> and is home to over 90,000 residents. Within its boundaries exist six self-governing municipalities: the City of Vernon, the City of Armstrong, the Village of Lumby, the District of Coldstream, the Township of Spallumcheen, and the City of Enderby. The RDNO governs five unincorporated electoral areas: Electoral Areas B, C, D, E, and F.

We acknowledge, with deep respect and gratitude, that Electoral Area F—encompassing the rural communities of Enderby, Grindrod, Mara, Kingfisher, and the lands bordering the Shuswap River and Mara Lake—rests on the traditional, ancestral, and unceded territories of the Splotsin, a member of the Secwépemc Nation, and the Okanagan Indian Band, within the Syilx Okanagan Nation. We honour their enduring stewardship of these river valleys, lakeshores, and forested foothills, whose living systems sustain everyone who calls this place home.

As we strive to strengthen wildfire resilience across Area F's farm fields, lakeside neighbourhoods, and upland forests, we look to Indigenous fire stewardship—especially the longstanding cultural-burning practices and ecological knowledge of the Splotsin te Secwépemc and Syilx Okanagan peoples—for guidance. We commit to collaboration, continual learning, and the respectful integration of traditional knowledge and rights as we build our shared resilience.

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

- Nathan Bretz, FireSmart Coordinator, Regional District of North Okanagan
- Alastair Crick, Protective Services Manager, Regional District of North Okanagan
- Andrew Hunsberger, RPF, Rural Services Manager, Regional District of North Okanagan
- Tom Lenarcic, GIS Coordinator, Regional District of North Okanagan
- Kurt Inglis, Manager of Planning, Community Safety, and Bylaw Compliance, City of Enderby
- Marc Szarek, FireSmart Coordinator, Township of Spallumcheen
- Alexis Szarek, FireSmart Coordinator, Township of Spallumcheen
- Shari McDowell, FireSmart Coordinator, City of Armstrong
- Warren Smith, Manager of Community Services, City of Armstrong
- Olivia Lemke, FireSmart Coordinator, Splotsin
- Brent Lipinski, Land and Resource Specialist, Ministry of Forests – Okanagan Shuswap Natural Resource District
- Vanessa Purves, RPF, Senior Wildfire Officer – Prevention, BCWS Kamloops Fire Centre
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This report was completed with the support from the following staff from Forsite Consultants Ltd:

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- Crystal Gauer, Wildfire Community Planner



- Lauren Shinnimin, RPF, Fuel Management Specialist
- Richelle Parada, GIS Specialist
- Christine Pachkowski, RPBio, FIT, Ecosystem Restoration Planner
- Hailey Sigalet, RPF, Fuel Management Specialist
- Maximilian Moore, FIT, Fuel Management Specialist
- Tani Rademaker, Marketing Specialist

This report would not be possible without the Community Resiliency Investment (CRI) Program through the FireSmart Community Funding and Supports (FCFS) stream, which is provided from the Province of British Columbia, administered by the Union of British Columbia Municipalities (UBCM) for the Regional District of North Okanagan.



## Frequently Used Acronyms

AOI	Area of Interest
BC	British Columbia
BCWS	British Columbia Wildfire Service
BEC	Biogeoclimatic Ecosystem Classification
CFDRS	Canadian Forest Fire Danger Rating System
CFRC	Community FireSmart Resiliency Collaborative
CI	Critical Infrastructure
CLWRR	Crown Land Wildfire Risk Reduction
CIFFC	Canadian Interagency Forest Fire Centre
CRI	Community Resiliency Investment
CWRP	Community Wildfire Resiliency Plans
DPA	Development Permit Area
FBP	Fire Behaviour Prediction System
FCFS	FireSmart Community Funding and Supports
HIZ	Home Ignition Zone
HVRA	Hazard, Risk, and Vulnerability Analysis
LRMP	Land and Resource Management Plan
MOF	Ministry of Forests
PSTA	Provincial Strategic Threat Assessment
OCP	Official Community Plan
SARA	Species at Risk Act
SPU	Structure Protection Units
UBCM	Union of British Columbia Municipalities
VAR	Values at Risk
WRR	Wildfire Risk Reduction
WUI	Wildland-Urban Interface



## Executive Summary

Wildfire is an inherent ecological process in the North Okanagan, yet a warming climate is lengthening fire seasons, deepening drought, and driving more volatile fire behaviour. Record-setting provincial fire years—2017, 2018, and the 2.84 million-hectare (ha) 2023 season—underscore how quickly conditions can escalate.

In response to recent fire events across the province, the Regional District of North Okanagan (RDNO) retained Forsite Consultants Ltd. (Forsite) to develop a Community Wildfire Resiliency Plan (CWRP) for each of the electoral areas within the Regional District.

For Electoral Area F (the rural Enderby/Mara corridor), that province-wide trend is increasingly felt close to home. Lightning-ignited interface fires such as the White Rock Lake Fire (2021) to the west and the Bush Creek East Fire (2023) to the north sent thick smoke through the Shuswap River valley, triggered evacuation alerts for parts of Grindrod and Mara, and closed popular recreation sites. Steep, heavily forested slopes on Hunters Range and along Mabel and Mara Lakes carry high fuel loads, while the valley floor hosts scattered farms, lakeside cottages, and seasonal resorts connected by long stretches of Highway 97A and Mabel Lake Road. This mix of rugged terrain, dispersed settlement, and summer visitor influx creates a complex wildland-urban-interface (WUI) risk for Area F's people, infrastructure, and ecosystems.

The purpose of this CWRP for Electoral Area F is to:

- i. Identify and assess wildfire hazards within and around Grindrod, Mara, Kingfisher, rural Enderby, and the Mabel/Mara Lake corridors,
- ii. Assess potential risks and impacts to the community and infrastructure from wildfires, and
- iii. Provide effective and feasible mitigation strategies to reduce identified hazards and risk.

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

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

The development of this CWRP included a multi-phase approach including analysis of background data, engagement with the public, Member Municipalities, First Nations, and other partnerships, local



wildfire threat assessment through collection of field data, and development of a risk mitigation strategy based on the unique attributes of Electoral Area F.

Table 1 summarizes the recommended action items for Electoral Area F as identified by the CWRP. This table includes rationale, funding source, and metric(s) for success on completing the recommended FireSmart and wildfire risk reduction action items. These measures will require coordinated efforts by Electoral Area F in partnership with other agencies and partners, including but not limited to, Indigenous Governments, provincial government agencies, adjacent municipal governments, and community members/private landowners.

## Summary of CWRP Actions

*Table 1. Electoral Area F CWRP Assessment and Action Plan Summary.*

Risk Summary
<p><i>The purpose of a risk summary is to identify the specific risks to a community and its assets. An ongoing review of the risks should occur annually.</i></p>
<p>This CWRP highlights identified risks and recommended actions to enhance wildfire resiliency within Electoral Area F. The risks listed below were identified based on background research, field work data collection, RDNO CWRP public community survey, conversations with RDNO, the North Okanagan Member Municipalities, local First Nations, and community members during Electoral Area open houses.</p> <p>The identified risks below are listed in no particular order:</p> <ol style="list-style-type: none"> <li> <p><b>1. Majority of Land within the Wildland Urban Interface is Ineligible</b></p> <p>Only 30.1 of the area within Electoral Area F Wildland Urban Interface falls into either Crown (29.7%) or Regional District (0.4%) land. All other forms of land, including Private and Federal, are ineligible for threat analysis through the CWRP, fuel treatments, or FireSmart Community Funding and Support program funding. This emphasizes the need for private landowners to work collaboratively as a community and commit to FireSmart to reduce wildfire risk.</p> </li> <li> <p><b>2. Isolation of Residence on East Mabel Lake</b></p> <p>There are several cabins and private property that are located on the east side of Mabel Lake, which only has access from Electoral Area D. Egress safety is of high concern for these properties, and secondary egress via water transportation to Kingfisher should be considered.</p> </li> <li> <p><b>3. Egress from Kingfisher</b></p> <p>The community of Kingfisher is highly populated, but located at a 'dead end' which limits egress to a single road (Mabel Lake Road). This is a high risk during the summer months when recreation through Kingfisher and the surrounding recreation site on Mabel Lake are high.</p> </li> </ol>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Education</b>						
<b>Objective</b>						
<b>Read and understand this CWRP’s identified risks and recommended actions and make this CWRP publicly available to community members on the RDNO FireSmart website</b>	FireSmart Coordinator	Very High	Immediately	Regional District of North Okanagan Area F CWRP	Read and understood CWRP identified risks and recommended actions. This CWRP is made available to community members on the respective websites	Making this CWRP publicly available is important for community education and engagement.  Community understanding and buy-in is critical for the successful implementation of recommendations within this CWRP.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<p><b>Partner with local newspapers, radio, and community outlets to run a short monthly FireSmart column with seasonal tips, upcoming chipper/assessment dates, and Neighbourhood Recognition Program spotlights. Cross-post the same content on RDNO channels with a QR link to book assessments and sign up for alters to keep messaging consistent across the RDNO</b></p>	<p>FireSmart Coordinator, RDNO Communications Department</p>	<p><b>High</b></p>	<p>Work to establish a continual schedule for disseminating information</p>	<p>Connections with local newspapers, radio, and community outlets. Pre-developed news releases and information to be shared</p>	<p>During fire season, monthly information for the RDNO FireSmart Program is shared in some capacity</p>	<p>Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.</p>

Electoral Area F – Rural Enderby CWRP Action Plan						
Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
<p><b>Host events, to introduce FireSmart concepts to the community and educate members on actions they can take</b></p>	<p>FireSmart Coordinator</p>	<p>High</p>	<p>2026-2030</p>	<p>Participation and in-kind support from community, other agencies, location to hold events, FCFS funding</p>	<p>Hold events annually in the spring and fall</p>	<p>Hosting an event is an excellent opportunity to solicit participation from local community and for the Fire Department to engage and provide education for the community. Look to solicit help from other agencies such as the Member Municipalities, and local First Nations communities.</p> <p>See <a href="#">Wildfire Community Preparedness Day and a Neighbourhood Champion Workshop</a> for resources.</p> <p>Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Support FireSmart BC Education program through the local schools or education groups and offer short classroom/club sessions and take-home checklists</b>	FireSmart Coordinator	Moderate	2027-2031	Relationship with School District No. 83, FCFS funding.	The program is adopted for the 2027/2028 calendar school year.	<p>This program includes wildfire resiliency literacy kits, Ember activity packages, coloring contest materials and access to Storytime videos with Ember. For more information refer to the <a href="#">FireSmart BC Education Program</a> website.</p> <p>Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.</p>
<b>Work with local garden centers to label low-flammability species, display FireSmart planting/signage at point-of-sale and include QR codes to RDNO Guidance and Assessment bookings. Coordinate seasonal promos on non-combustible mulch and “right plant, right place” kits to nudge adoption</b>	FireSmart Coordinator	Moderate	2026-2030	FCFS funding, relationship with local business owners	Local garden centers or nurseries continue to support the program	<p>The <a href="#">FireSmart Plant Program</a> includes plant tags, banners, staff buttons and in-store FireSmart advertising.</p> <p>Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Install educational/interpretive signage regarding wildfire ignition prevention and the role of wildfire in ecosystems in regional parks, recreation sites, campground, etc. where appropriate within the electoral area</b>	FireSmart Coordinator, RDNO Parks, Recreation & Culture Department	Moderate	2026-2030	FCFS funding	Educational/ interpretive signage regarding wildfire ignition prevention and FireSmart are strategically placed in high-use RDNO recreation locations	Signage for wildfire and FireSmart educational purposes can be placed in RDNO parks such as in Mabel Lake, Kingfisher, and Mara Lake.  Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.
<b>Host a short FireSmart briefing for local landscapers/roofers and publish a “trained vendors” list to streamline homeowner upgrades</b>	FireSmart Coordinator	Moderate	2026-2030	FCFS funding, the want from contractors to participate in this type of training	A short FireSmart briefing/ workshop is conducted for contractors in the RDNO	There is currently not a contractor specific FireSmart Course. RDNO could utilize information from various FireSmart courses, such as the FireSmart 101, Local FireSmart Representative (LFR), and FireSmart Landscaping courses to create a workshop for contractors.  Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Share a seasonal-resident arrival kit in summer residential areas. This can include a one-page checklist, chipping program information, and Home Assessment sign-up link timed to common arrival weekends. Consider distribution through targeted mailouts, email to program subscribers, and handouts at transfer stations, and local retailers</b>	FireSmart Coordinator	Moderate	2026-2030	Communication channels, shareable information	RDNO develops a package of FireSmart and Wildfire Preparedness information to disseminate amongst summer residential properties	Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.
<b>Schedule pre-season and high-risk day reminders (website, email, alerts) with quick links to book assessments and chippers</b>	FireSmart Coordinator, RDNO Communications Department	High	By Spring 2026, then on-going	Pre-developed communications and contact list for RDNO residents interested in reminder emails	Communications are sent pre-season in April/May, and again during high and extreme fire danger days to remind residents about FireSmart practices	Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Add additional hires or volunteer LFR’s or Wildfire Mitigation Specialists to assist in conducting community outreach, Wildfire Mitigation Program Assessments, Farm and Ranch Assessments, Etc.</b>	FireSmart Coordinator	High	For 2026 Fire Season	FCFS funding, training for individuals in LFR and/or Wildfire Mitigation Specialist	Additional individuals (start with 1 per electoral area) are hired on to support the FireSmart Coordinator with various assessments and FireSmart tasks	<p>As the RDNO FireSmart Program develops, the FireSmart Coordinator will not have time to be the sole individual conducting assessments. Additional individuals, one per electoral area, will assist with this work and will act as the local FireSmart knowledge for the area.</p> <p>Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.</p>

Electoral Area F – Rural Enderby CWRP Action Plan						
Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
<b>Recruit and coach block/strata to achieve and renew FireSmart Canada Neighbourhood Recognition Program status; seed efforts with small “Neighbourhood Champion” micro-grants</b>	FireSmart Coordinator	High	2026-2030	FCFS funding, Neighbourhood Champion and Local FireSmart Representative (LFR).	Have a minimum of three neighbourhoods recognized across RDNO by the end of 2027.	<p>The program focuses on bringing neighbours together to address threats on their respective properties. For more details regarding the FireSmart Canada Neighbourhood Recognition Program and steps towards recognition status, please see <a href="#">here</a>.</p> <p>Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.</p>
Legislation and Planning						
<i>Objective</i>						
<b>Develop drought water regulations to be applied to a current bylaw or developed as a stand-alone bylaw. This will ensure adequate water resources during emergency events</b>	FireSmart Coordinator, RDNO Protective Services Department	Moderate	2026-2030	FCFS Funding, examples of drought water regulations from other municipalities	Drought water regulations are considered and applied to RDNO if applicable	<p>Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application.</p> <p>An example of Drought Water Regulations is provided in Appendix H.</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Establish guiding principles for wildfire protection for the RDNO</b>	FireSmart Coordinator	Moderate	2026-2030	FCFS Funding	Guiding principles for wildfire risk reduction and FireSmart for RDNO are established.	Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application.  An example of Guiding Principles for Wildfire Risk Reduction is provided in Appendix H.
<b>Development Considerations</b>						
<b>Objective</b>						

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Amend the RDNO Electoral Area F Official Community Plan (Bylaw 2702) with the recommendations listed within this CWRP</b>	FireSmart Coordinator, RDNO Protective Services Department	Very High	Immediately	RDNO Area F Official Community Plan, FCFS Funding	Recommended actions for the Official Community Plan are considered and amended in the plan	<p>RDNO is currently undergoing a revision of the Area F Official Community Plan. The recommendations from this CWRP should be considered and amended in the plan where applicable.</p> <p>Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application.</p> <p>The recommended action items were developed with information from <a href="#">BC FireSmart Wildfire Development Permit Areas Guide</a>, <a href="#">NFPA 114 Standards</a>, and <a href="#">the Fire Underwriters Survey</a>.</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Amend the RDNO Subdivision Servicing Bylaw, 2013 (Bylaw 2600) with the recommendations listed within this CWRP</b>	FireSmart Coordinator, RDNO Protective Services Department	Moderate	2026-2030	RDNO Subdivision Servicing Bylaw, FCFS Funding	Recommended actions for the Subdivision Servicing Bylaw are considered and amended in the plan	When RDNO amends the Subdivision Servicing Bylaw, the recommendations from this CWRP should be considered and amended in the plan where applicable.  Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application.
<b>Amend the RDNO Zoning Bylaw (Bylaw 3000) with the recommendations listed within this CWRP</b>	FireSmart Coordinator, RDNO Protective Services Department	Moderate	2026-2030	RDNO Zoning Bylaw, FCFS Funding	Recommended actions for the Zoning Bylaw are considered and amended in the plan	When RDNO amends the Zoning Bylaw, the recommendations from this CWRP should be considered and amended in the plan where applicable.  Funding is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application.
<b>Interagency Cooperation</b>						
<b>Objective</b>						

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Annually attend the Wildfire Resiliency and Training Summit</b>	FireSmart Coordinator, RDNO Fire Department Staff, RDNO municipal staff	Very High	Annually	FCFS funding	A minimum of two people attend annually from the Regional District.	The intention of having multiple people attend the event from RDNO is to foster awareness and education regarding wildfire resiliency across various RDNO departments. Funding for attendance is available through the <a href="#">FireSmart Community Funding and Supports</a> program.
<b>Continue to participate in the North Okanagan Community FireSmart and Resiliency Collaborative (CFRC) and share findings of CWRP with partners</b>	FireSmart Coordinator	Very High	Ongoing	FCFS funding	Continued participation in committees	The committee meets quarterly to discuss FireSmart and emergency management. Share high priority action items with other agencies/partners and identify synergies and opportunities to collaborate. Participation in a FireSmart Resiliency Committee is a requirement for FCFS funding as of 2024.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Invite additional community partners to attend the CFRC when appropriate to share knowledge regarding ongoing wildfire risk reduction projects in the region, voice community concerns to other jurisdictions and strategize mid- to long-term planning</b>	FireSmart Coordinator	Moderate	During appropriate CFRC Meetings	Contacts for additional community partners	Appropriate community partners are invited to the RDNO CFRC meetings to coordinate with the FireSmart Coordinators in the North Okanagan area on mid- to long-term planning	Communication between the members of the RDNO CFRC should determine which community partners are priority to invite to the CFRC.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Work collaboratively with woodlot owners with license areas adjacent/near to private residences to manage for wildfire risk in forest management planning and harvest operations</b>	FireSmart Coordinator	High	On-going	Contact for Southern Interior Woodlot Representative, Wildfire Threat Assessments and proposed Fuel Treatment Units (FTU's) identified in this CWRP within woodlots	RDNO coordinates with Woodlot owners, the Woodlots Representative, and BCWS to manage wildfire risk	RDNO should utilize information sharing and interagency co-operation to help woodlot owners within the WUI to prioritize locations of forest management for the benefit of wildfire risk reduction. Identified FTU's and Wildfire Threat Assessments in this CWRP can be used to help guide the woodlot owners where applicable. Jurisdiction to carryout the fuel treatments on the woodlot land is on the Woodlot owners, who can apply for funding through the <a href="#">Forest Enhancement Society of BC</a> , and the <a href="#">Forest Investment Program</a> .

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Collaborate with the Member Municipalities and local First Nation groups during conducted training, extending offerings to seats in courses or conduct collaborative training events</b>	FireSmart Coordination	High	On-going, as training opportunities present themselves	Communication with Member Municipalities and local First Nation FireSmart Coordinators, training opportunities	When training or courses are established for RDNO, the opportunity for other individuals from the Member Municipalities and local First Nations to participate is offered when applicable	<p>Opportunities to allow other jurisdiction into training and courses with RDNO builds relationships, and expands wildfire, emergency response, and safety knowledge across the region.</p> <p>Several Member Municipalities and the local First Nations have experienced interest in joint training and courses where applicable, but none have any immediate need.</p>

<p><b>Consider establishing a mechanism which allows sharing of resources (LFR's, Wildfire Mitigation Specialist (WMS) trained individuals, FireSmart materials, assistance from FireSmart Coordinators, etc.), when needed with the Member Municipalities and local First Nations</b></p>	<p>FireSmart Coordination</p>	<p>Moderate</p>	<p>Discuss at CFRC Meeting</p>	<p>CFRC meeting with all Member Municipalities and local First Nations</p>	<p>Shared resource agreement is considered and established if desired between all communities</p>	<p>A mutual aid like agreement would allow resources to be shared between RDNO, the Member Municipalities, and the local First Nation groups. This could be the use of additional LFR's or WMS training individuals for assessment needs, FireSmart materials and support during events, etc. This concept can be applied to the use of assistance during emergency events as most FireSmart trained individuals in these communities are on the local Fire Department and may be deployed. This gives communities the opportunity to bring in additional FireSmart knowledge when needed.</p> <p>Concepts of wage, payments, information sharing, support requests, training requirements etc., will need to be further discussed.</p>
<p><b>Have a discussion with UBCM on the concept of pooling FCFS funding</b></p>	<p>FireSmart Coordinator</p>	<p>Very High</p>	<p>Immediately</p>	<p>Contact with UBCM representative</p>	<p>Conversation with UBCM representative on</p>	<p>This conversation should happen immediately, prior to any collaborative FireSmart</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>between multiple jurisdictions (RDNO, Member Municipalities, local First Nations) to conduct FireSmart activities</b>					FCFS funding sharing	action items between the Member Municipalities, local First Nations, and RDNO. This will help determine how the communities should move forward in requesting funding and how to share FCFS funding for multi-jurisdiction FireSmart activities.

<p><b>Consider developing a region wide chipping program to be utilized by RDNO, Member Municipalities, and the local First Nations</b></p>	<p>FireSmart Coordinator</p>	<p>Moderate</p>	<p>Discuss at CFRC Meeting</p>	<p>CFRC meeting with all Member Municipalities and local First Nations</p>	<p>Region wide chipping program is considered and established if desired between all communities</p>	<p>Member Municipalities, local First Nations, and RDNO have expressed interest in developing a region wide chipping program to streamline effectiveness for the entire region. Full concept needs to be discussed with all members of the CFRC.</p> <p>Potential ideas include:</p> <ul style="list-style-type: none"> <li>Alert system between communities for when residents sign-up for chipping under the wrong jurisdictions program</li> <li>Put out a request for proposal for regional chipping contractor. Allows the contractor to chip in the entire area (i.e. chip in Lumby and then expand to Area D)</li> <li>Establish joint pricing and list of contractors so each jurisdiction could bill separately</li> </ul> <p>Collaborate with Regional District owned land</p>
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<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Develop a group calendar or other format for members of the CFRC to share community events (not just FireSmart) for other members to participate in or provide additional support for that community's FireSmart program</b>	FireSmart Coordinate	<b>High</b>	Discuss at CFRC Meeting	CFRC meeting with all Member Municipalities and local First Nations	A system is designed and used regularly by CFRC members to share community events	A collaborative continually updated calendar, or other system will allow individuals from all communities in the region to know when upcoming events are happening. This applies to more than just FireSmart events. This will allow RDNO or the other communities to participate in the events under FireSmart or provide support to the community's FireSmart Coordinator when needed.
<b>Cross-Training</b>						
<b>Objective</b>						

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Collaborate with the City of Enderby to provide opportunities for additional training for the members of City of Enderby and Rancho Deep Creek Fire Department</b>	FireSmart Coordinator, Enderby and District Fire Department	High	Ongoing	FCFS funding, qualified trainers	Additional courses are provided to all members of the Enderby and District Fire Department	Interface wildfire training is essential for fire department members to successfully respond to interface wildfires.  The City of Enderby Fire Department is operated by the City of Enderby, but the Fire Protection Area expands into Electoral Area F. RDNO must work collaboratively with the City of Enderby to provide additional training to Fire Department members.
<b>If any Cooperative Community Wildfire Response (CCWR) organizations are established throughout Electoral Area F, provide basic training courses in wildfire and safety to the personnel</b>	FireSmart Coordinator	Moderate	2026-2030	FCFS funding	Training is provided to CCWR organizations if established	This action item is only applicable if a CCWR organization is established in Electoral Area F.  Please see the <a href="#">FireSmart Community Funding and Supports</a> program and application guide for funding details.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Provide opportunities to RDNO staff, FireSmart Coordinator, and committed community members for additional training related to FireSmart and wildfire risk reduction</b>	FireSmart Coordinator	High	Ongoing	FCFS funding, qualified trainers	Regional District staff receive appropriate cross training in emergency management, FireSmart and Wildfire Risk Reduction	Participation in these courses will improve the District's ability to effectively respond to an emergency event.  Please see the <a href="#">FireSmart Community Funding and Supports</a> program and application guide for funding details.
<b>Wildfire Mitigation Specialist training for RDNO staff to allow these individuals to conduct Wildfire Mitigation Program, Cultural Site and Green Space, and Critical Infrastructure Assessments</b>	FireSmart Coordinator	Very High	Immediately	FCFS funding, qualified trainers	A minimum of one Wildfire Mitigation Specialists per Electoral Area are on staff by the end of 2026.	<a href="#">Wildfire Mitigation Specialist</a> and <a href="#">Local FireSmart Representative</a> training are essential qualifications for conducting various FireSmart assessments and activities. Having trained staff within the Regional District increases the municipality's capacity to implement wildfire mitigation measures and advance FireSmart initiatives effectively.  Please see the <a href="#">FireSmart Community Funding and Supports</a> program and application guide for a list of eligible courses.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
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<p><b>Provide training opportunities to the FireSmart Coordinator, essential RDNO staff, and members of the City of Enderby Fire Department (in collaboration with the City of Enderby) to develop cultural and prescribed fire knowledge through eligible training courses</b></p>	<p>FireSmart Coordinator, City of Enderby Fire Department</p>	<p>Moderate</p>	<p>On-going</p>	<p>FCFS funding, qualified trainers</p>	<p>At minimum the FireSmart Coordinator and top members of the City of Enderby Fire Department are trained in prescribed fire</p>	<p>Funding is available through the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.</p> <p>The City of Enderby Fire Department is operated by the City of Enderby, but the Fire Protection Area expands into Electoral Area F. RDNO must work collaboratively with the City of Enderby to provide additional training to Fire Department members.</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Provide opportunities for live wildland fire training exercises. Collaborative with RDNO Fire Departments, RDNO staff, BCWS, Member Municipalities, and the local First Nations to practice working under unified command in a wildland fire environment</b>	FireSmart Coordinator	Moderate	Bi-annually in spring or fall	FCFS funding, relationship with BCWS Vernon Fire Zone	Have a minimum of one cross training/ live wildfire fire exercise annually	Established relationships between agencies will lead to increased efficiency and coordinated responses during a wildfire event. Identified prescribed fire FTU's in this CWRP may be used as the location for such training.  Funding is available through the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.
<b>Emergency Planning</b>						
<b>Objective</b>						

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Amend the Kingfisher Evacuation Plan to add the recommendations listed within this CWRP</b>	RDNO Protective Services Department	Moderate	2026-2030	RDNO Kingfisher Evacuation Plan	Recommended actions for the Kingfisher Evacuation Plan are considered and amended in the plan	<p>When RDNO amends the Kingfisher Evacuation Plan, the recommendations from this CWRP should be considered and amended in the plan where applicable.</p> <p>Funding for amendments of plans coinciding with emergency response is not eligible for funding through the FCFS program. The <a href="#">Public Notification and Evacuation Route Funding</a> through UBCM is an option for grant funding for this action item.</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
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<b>Complete a Hazard, Risk, &amp; Vulnerability Assessment (HRVA)</b>	RDNO Protective Services Department	Very High	Immediately	Commission for completion of HRVA for the entire North Okanagan Region, funding	Completed and up-to-date HRVA	<p>Commission an HRVA for the region to identify top hazards, who/what is exposed (people, roads, utilities), vulnerable populations, and seasonal pinch points. Deliverables should include a simple risk map, priority actions, resource gaps, and a short improvement plan (alerts, evacuations, communication). Involve RDNO, BCWS, neighbouring jurisdictions, Emergency Support Services (ESS)/social services, and local champions; update the HRVA annually or after major events.</p> <p>Funding for amendments of plans coinciding with emergency response is not eligible for funding through the FCFS program.</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Create an Emergency Management Plan and centralized regional Emergency Operations Centre</b>	RDNO Protective Services Department	<b>Very High</b>	Immediately	Commission for a RDNO Emergency Management Plan, funding	Completed and up-to-date Emergency Management Plan	<p>Hire a qualified planner to produce a right-sized, all-hazard plan: map risk and routes; define clear roles and plain-language checklists; set up multi-channel alerts (email/landline/radio); outline Reception/ESS and basic re-entry; and establish a light training and annual update cycle – coordinated with RDNO, local fire/ESS, nearby jurisdictions, and Indigenous partners.</p> <p>Funding for amendments of plans coinciding with emergency response is not eligible for funding through the FCFS program.</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Conduct an annual cross-training event with RDNO staff, City of Enderby Fire Department, and interested external partners (Member Municipalities, local First Nations, BCWS, etc.) that simulates using the emergency response plan</b>	RDNO Protective Services Department, FireSmart Coordinator	Moderate	Annually	FCFS funding, venue	Annual or biannual participation in a meeting and or tabletop exercise specific to reviewing the emergency management/ response/ evacuation plans	Funding for attendance is available per the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.  Consider hiring an emergency management consultant to facilitate an annual tabletop exercise focused on a wildfire event impacting the RDNO, the Member Municipalities, and local First Nations areas.
<b>Assess the number of residents that may be more vulnerable or at higher risk during an emergency evacuation and what specific support they may require</b>	RDNO Protective Services Department	High	Complete in conjunction with creation of Emergency Management Plan and Evacuation Plan amendments	Funding	An in-depth analysis of vulnerable populations and specific required support is conducted in conjunction with the Emergency Management Plan, HRVA, and Evacuation Plan updates	Social support service groups and organizations will be a good resource for acquiring this information while keeping confidentiality.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Assess, inventory, and purchase FireSmart structural protection equipment</b>	RDNO Protective Services Department	Moderate	Ongoing	FCFS Funding	FireSmart Structure Protection Trailer and required equipment are acquired	The FireSmart Structure Protection Trailer can be purchased through four phases. The District can apply annually for funding.  For more information, please refer to the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.
<b>Conduct pre-incident planning to create a community specific pre-incident checklist and wildfire response preparedness condition guidelines which should be reviewed prior to each fire season</b>	RDNO Protective Services Department	Moderate	2026-2029	Professional expertise, <i>Wildfire Act</i> , <i>Wildfire Regulation</i> , funding.	Guide is created by the end of 2029.	A Wildfire Response Preparedness Condition Guide would include local daily action guidelines based on expected wildfire conditions. The RDNO would use these guidelines to guide decision-making and actions to best respond to wildfire. For example, during periods of High Fire Danger, Public Works personnel would not use equipment that may cause sparks, such as chainsaws.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Purchase electronic sign boards to be strategically placed throughout the Electoral Area to communicate current Fire Danger Ratings and wildfire-related public messaging</b>	FireSmart Coordinator	Moderate	By 2027 fire season	District internal funding	Boards are procured for the 2027 fire season	<p>Electronic sign boards can serve as an effective tool for communicating critical messages to the public, particularly in high fire risk areas.</p> <p>The purchase and installation of fire danger boards are not funded by the FCFS program.</p>

<p><b>Train LFR's and WMS trained individuals on the RDNO Emergency Management Plan and Evacuation Plans to deploy them as informational resources during evacuations or other emergencies</b></p>	<p>FireSmart Coordinator</p>	<p>High</p>	<p>Prior to 2027 fire season</p>	<p>Emergency Management Plan, Evacuation plan, Responsibility guidelines established</p>	<p>LFR's and WMS trained individuals are deployed when needed to assist with emergency operations</p>	<p>LFR's and WMS trained individuals have the possibility to be deployed during emergency scenarios as information holders and guidance for community members. Examples of tasks that could be conducted by these individuals include:</p> <ul style="list-style-type: none"> <li>• Emergency FireSmart assessments for properties on Evacuation Alert</li> <li>• Door-to-door information sharing of evacuation planning and preparedness</li> <li>• Provide guidance to evacuees at reception center or in neighbourhoods</li> <li>• Assist the Fire Department, RCMP, and RDNO with evacuation efforts</li> <li>• Perform simple tasks for the incident management team within the Emergency Operations Center (EOC)</li> </ul>
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<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Vegetation Management</b>						
<b>Objective</b>						
<b>Continue to conduct Wildfire Mitigation Program Assessments and/or Farm and Ranch Assessments for private landowners. Based on the Assessments, encourage property owners to implement as many mitigation activities as possible</b>	FireSmart Coordinator	Very High	Immediate and ongoing	FireSmart Coordinator, Local FireSmart Representative, or individuals with Wildfire Mitigation Specialist training, to complete the Wildfire Mitigation Program Assessment and/or Farm and Ranch Assessment	Residents within Electoral Area F request FireSmart Wildfire Mitigation Program Assessments be completed for their home/property	Funding is available through the UBCM's FCFS program to have LFRs and Wildfire Mitigation Specialists complete FireSmart Wildfire Mitigation Program Assessments and/or Farm and Ranch Assessments for property owners.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>If residents prefer not to book a formal assessment, direct them to complete a private-self assessment using the FireSmart Begins at Home app. Update the RDNO FireSmart page by repairing the self-assessment link to point to the app landing page and add links to printable self-assessment materials (PDFs) for paper users)</b>	FireSmart Coordinator	High	Immediately	Links to FireSmart begins at home app, PDF self-assessment Materials	RDNO FireSmart website is updated with self-assessment information	Adding self-assessment information will allow additional community members to complete a FireSmart Assessment if they are waiting for a full assessment from an LFR or Wildfire Mitigation Specialist or are apprehensive to having a formal assessment.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Continue to conduct the RDNO FireSmart Chipping Program annually, starting the program in the spring during typical clean-up, through to the end of fall</b>	FireSmart Coordinator	High	Annually, Spring – Fall	Funding, chipping contractors, communication to residents, sign-up link	RDNO continues to offer the chipping program to residents	Feedback from community engagement that the chipping program employed thus far has been well received and should continue to be implemented. Additionally, the Member Municipalities and local First Nations have voiced interest in collaborating for a region wide program, such as hiring the same contractor and conducting chipping for a given area (including Member Municipalities and First Nation areas) at the same time.
<b>Promote Volunteer-supported yard-work events (priority to seniors/mobility limited) focused on immediate/Intermediate Zone tasks</b>	FireSmart Coordinator	Moderate	2026 and beyond	FCFS funding	Target mitigation activities for five properties a year	Funding is available through the <a href="#">FireSmart Community Funding and Supports</a> program and application guide.

Electoral Area F – Rural Enderby CWRP Action Plan						
Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
<b>Offer seasonal workshops on compliant pile-and-burn (permits, venting/ban conditions, safe pile sizing/setbacks), small-scale biochar (cone/retort kilns), community chipping/haul-out, green-waste drop-off, and composting options. Provide a simple decision-tree handout (“chip, burn, biochar, or haul?”) and align demos with community chipper days in coordination with RDNO and provincial guidance</b>	FireSmart Coordinator	Moderate	Starting in 2026	Amendment to RDNO Open Burning Bylaw, Chipping Program, other information pertaining to vegetation management for private property owners	RDNO residents understand where to gather information for vegetation management on private properties, and are applying the correct procedures according to BCWS and the RDNO Bylaws	A workshop such as this can be completed in conjunction with other community events, workshops, or conducted during a chipping day for each major area.
<b>Complete FireSmart Assessments on RDNO owned Critical Infrastructure and Community Assets within Electoral Area F</b>	FireSmart Coordinator	Very High	Immediately	Qualified LFR or similar to complete the FireSmart Assessments	FireSmart CI Assessments have been completed by the end of 2028	Funding is available through the UBCM's FCFS program to complete FireSmart assessments for publicly owned buildings, and critical infrastructure.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<p><b>Once Assessments on RDNO owned Critical Infrastructure and Community Assets within Electoral Area F are completed, implement FireSmart recommendations and mitigation activities resulting from the completed Assessments with the goal of reducing hazard scores as much as feasibly possible</b></p>	<p>FireSmart Coordinator, RDNO Protective Services Department</p>	<p><b>Very High</b></p>	<p>Within 4 years (2030)</p>	<p>Labour, machinery, construction materials</p>	<p>FireSmart recommendations have been implemented for the top 1-3 highest priority CI located within Electoral Area F by 2029</p>	<p>Funding is available through the UBCM's FCFS program to complete mitigation activities on assessed structures, including building materials and labour.</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<p><b>Apply for funding to complete an initial FireSmart Cultural Sites and Green Spaces (CSGS) Assessment for frequented green spaces in Electoral Area F. Once assessment is complete, apply for funding to complete the recommended eligible mitigation activities identified (limited to labour and material costs)</b></p>	<p>FireSmart Coordinator, RDNO Parks staff</p>	<p>Moderate</p>	<p>Within 2 years (2028)</p>	<p>Complete <i>Checklist for FCFS Requirements for Fuel Management Prescription</i> before CSGS Assessment is started, personnel qualified to complete a <i>FireSmart Cultural Sites and Green Spaces (CSGS) Assessment</i></p>	<p>An initial FireSmart CSGS Assessment is completed for all identified and qualifying green spaces within Electoral Area F. Highest priority green spaces to receive any recommended mitigation activities</p>	<p>Funding is available through the UBCM's FCFS 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 <i>Checklist for FCFS Requirements for Fuel Management Prescription</i> and a completed <i>FireSmart Cultural Sites and Green Spaces (CSGS) Assessment</i> submitted to UBCM prior to commencing work.</p> <p>Assessments should eventually be conducted on all RDNO owned land, even if undeveloped for continual maintenance.</p>

Electoral Area F – Rural Enderby CWRP Action Plan						
Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
<b>Create an inventory and monitoring system to track wildfire risk reduction and FireSmart vegetation management activities throughout the Regional District</b>	FireSmart Coordinator, RDNO Protective Services Staff	Moderate	Within 4 years (2029), 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 interval. RDNO should work collaborative with the Member Municipalities, First Nations, BCWS, Ministry of Forests, and other land managers to create a collective data base for all fuel management for the area.  Funding for the creation of databases is not eligible through the FCFS program.
<b>Work with the BC Wildfire Service and the Ministry of Forests Natural Resource District to determine opportunities for fuel treatment implementation through the CRI – Crown Land Wildfire Risk Reduction (CLWRR) program</b>	FireSmart Coordinator	Very High	Ongoing	CLWRR funding, relationship with BCWS Kamloops Fire Centre Prevention Team and Okanagan Shuswap Natural Resource District.	Continued annual completion of fuel management projects.	Funding is available through the <a href="#">Crown Land Wildfire Risk Reduction program</a> for the Ministry of Forests.  RDNO must advocate for the proposed FTU's in this CWRP to be priority for CLWRR funding treatment.

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<p><b>Apply for funding to develop fuel management prescriptions for forested areas identified on land within the eligible WUIs. It is recommended to start with high priority proposed fuel treatment areas as identified within this CWRP</b></p>	<p>FireSmart Coordinator</p>	<p><b>High</b></p>	<p>Annually, ongoing</p>	<p>A Registered Professional Forester is required to write all fuel management prescriptions.</p>	<p>Fuel management prescriptions are developed for an identified fuel treatment areas within the Regional District each year as required. This target is Regional District wide</p>	<p>Funding is available through UBCM's FCFS program for fuel management prescription development. Funding through the <a href="#">Forest Enhancement Society of BC</a> may also be utilized.</p> <p>Proposed fuel treatments fall under both Regional District and Provincial jurisdiction. The RDNO should assist the Ministry of Forests, or other land managers where possible and advocate for priority treatment areas throughout the Electoral Areas. RDNO should prioritize the FCFS funding for prescriptions on Regional District land.</p>

<b>Electoral Area F – Rural Enderby CWRP Action Plan</b>						
<b>Action</b>	<b>Lead(s)</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Resources Required</b>	<b>Metric for Success</b>	<b>Rationale/Notes</b>
<b>Apply for funding to undertake fuel management treatment operations on land within the eligible WUIs based on completed fuel management prescription units</b>	FireSmart Coordinator	High	Ongoing, as needed and funding available	Contracts must be acquired to complete treatment operations	After the prescription phase is completed, fuel management treatments are operationally completed for an identified area in the Regional District each year as required. This target is Regional District wide	<p>Funding is available through UBCM's FCFS program for fuel management prescription development. Funding through the <a href="#">Forest Enhancement Society of BC</a> may also be utilized.</p> <p>Proposed fuel treatments fall under both Regional District and Provincial jurisdiction. The RDNO should assist the Ministry of Forests, or other land managers where possible and advocate for priority treatment areas throughout the Electoral Areas. RDNO should prioritize the FCFS funding for treatment on Regional District land.</p>



## 1.0 Introduction

Wildfire is a natural feature of the North Okanagan landscape, yet a warming climate is lengthening fire seasons, deepening drought, and driving increasingly volatile fire behaviour. British Columbia's record-setting 2023 season—when more than 2.84 million ha burned, twice the previous worst year—highlights the growing threat to people, infrastructure, and ecosystems, especially where forests meet rural development in the wildland-urban interface (WUI).

Electoral Area F stretches from the Shuswap River flats near Enderby through Grindrod and Mara to the forested foothills of Hunters Range and the lakeshores of Mara and Mabel Lakes. Settlement is dispersed along Highway 97A, Enderby-Mabel Lake Road, and myriad side roads that thread farms, acreages, resorts, and seasonal cottages through a mix of valley bottom fields and steep, heavily forested slopes. These continuous fuel corridors rise quickly from river benches and lakeshore properties into dense Crown forests, linking homes and critical infrastructure directly to backcountry watersheds and alpine ridges.

Recent lightning-driven interface fires underscore local exposure: the White Rock Lake Fire (2021) forced widespread evacuations and blanketed Area F in smoke; the Bush Creek East Fire (2023) to the north prompted alerts and disrupted summer tourism; and smaller 2023-25 starts on Mabel Lake's east shore and in the Hunters Range backcountry have periodically closed recreation areas and strained local response capacity. Heavy crown fuels, steep terrain, and reliance on a handful of long, single-access routes (Highway 97A, Enderby-Mabel Lake Road, and Mara-Kingfisher Forest Service Road) define Area F's acute wildfire risk—exacerbated each summer by an influx of visitors to lakeside resorts and campgrounds.

Together, climate-driven extremes, abundant fuels, and limited evacuation routes create a pressing wildfire threat for residents, visitors, and vital infrastructure throughout Area F's WUI.

The Community Wildfire Resiliency Plan (CWRP) offers a comprehensive, science-based roadmap for reducing that risk while aligning local priorities with provincial goals. It addresses wildfire risk reduction through the seven FireSmart disciplines:

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

By advancing each of these pillars, the CWRP charts a clear path toward long-term wildfire resilience for everyone who lives, farms, works, or recreates in Electoral Area F.



## 1.1 PLAN GOALS

The purpose of the Electoral Area F's Community Wildfire Resiliency Plan (CWRP) is to identify wildfire hazards within and around the jurisdiction of Electoral Area F, assess the potential risks and impacts to the community from wildfires, and provide strategies to reduce these identified threats and risks guided through FireSmart principles. In accordance with the *2024 Community Wildfire Resiliency Plan Instruction Guide*, the primary goals of the CWRP are to:

1. Enhance RDNO Electoral Area F's capacity and understanding of wildfire risk,
2. Promote collaboration within and across administrative boundaries,
3. Address diverse community needs, and
4. Develop actionable and accountable recommendations for effectively reducing wildfire risk.

## 1.2 PLAN DEVELOPMENT SUMMARY

Forsite Consultants Ltd. (Forsite) was retained to develop the 2025 Electoral Area F Community Wildfire Resiliency Plan (CWRP). The development of this plan included the following components:

1. **Gathering and analysis of background information:** A thorough review of existing local community plans, other relevant plans, and compilation of spatial data to help inform this CWRP. Multiple meetings were held with RDNO staff, community members, Member Municipalities, and First Nations, to provide insight and community specific information to the plan.
2. **Identification of human and natural values-at-risk:** Development of a values-at-risk spatial database for Electoral Area F through information provided by the RDNO, public engagement meetings and surveys.
3. **Public engagement:** Public engagement was conducted throughout the month of July, where a Community CWRP Survey was developed and shared to receive input. In addition, a community open house was held on July 22, 2025, which included a short formal presentation on the basics of the CWRP process and was followed by questions and discussion. This information was captured to be included in the plan. The results of all engagements can be found in Appendix F.
4. **Member Municipality and First Nations Engagement:** All Member Municipalities and First Nations groups that fall within the RDNO boundary were engaged with to collaborate in development of the FireSmart action items that are recommended in this CWRP. On September 3, 2025, a meeting was held with representatives from Forsite, RDNO, Enderby, Lumby, Coldstream, Vernon, Armstrong, Spallumcheen, and Splotsin. This meeting gave the opportunity for the neighbouring community partners to discuss collaborative FireSmart efforts, emergency management, and provide insight for the RDNO CWRPs.
5. **Assessment of local wildfire hazard and risk:** On the ground wildfire threat assessments were completed in forested areas on Crown land within the Wildland Urban Interface adjacent to homes, critical infrastructure, and other values. The results of these assessments



were utilized to identify and delineate recommended areas for fuel management treatments.

6. **Development of a risk mitigation strategy with actionable recommendations:** The data and information collected in the above phases provided the necessary content to develop an actionable CWRP that is tailored to Electoral Area F. The action table provides a comprehensive list of recommendations utilizing the FireSmart principles, for RDNO and Electoral Area F to implement and increase overall wildfire resiliency.

This plan is intended for use by RDNO, Electoral Area F, and its partners to guide efforts in wildfire risk reduction and resilience. Comprehensive data collection and engagement with the Member Municipalities, First Nations, and community members ensure a tailored approach specific to Electoral Area F and values.

### 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 is broken into two streams: FireSmart Community Funding and Supports (FCFS), and Crown Land Wildfire Risk Reduction (CLWRR). FCFS provides funding to local governments and First Nations to undertake FireSmart planning and activities within their community that help build and support overall wildfire resiliency.

As of 2024, the FCFS program requires each community to have an up-to-date **Community Wildfire Resiliency Plan**, a **FireSmart Coordinator position**, and participate in a **Community FireSmart Resiliency Committee** 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 FCFS program at the time of development, and recommendations within the Action Plan are intentionally organized to facilitate future FCFS funding applications. However, it is important to note that government funding programs are subject to government budget availabilities and allotment. As such, the FCFS 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
2019 RDNO Community Wildfire Protection Plan (CWPP)	Provided a regional overview of wildfire risk across the RDNO, identifying priority areas for fuel management and recommending high-level strategies for reducing wildfire threat to communities, infrastructure, and values at risk.	The current Community Wildfire Resiliency Plan (CWRP) builds on the 2019 CWPP by offering updated risk assessments, incorporating new provincial guidance, and providing more detailed, area-specific recommendations for proactive wildfire mitigation in Electoral Area F.
Mabel Lake Kingfisher Community Wildfire Structure Protection Plan (CWSPP)	Developed by the Regional District in coordination with the BC Wildfire Service, this plan identifies critical infrastructure, neighbourhoods, and structures at risk. It outlines site-specific strategies to protect buildings during a wildfire event, including staging areas, water sources, access routes, and deployment plans for structural protection units (SPUs). The CWSPP is intended to support operational readiness and coordination in the event of a wildfire threatening the community.	While the CWSPP focuses on operational response—detailing how to protect specific structures and critical infrastructure during a wildfire—the CWRP takes a broader, proactive approach to wildfire risk reduction. The CWRP addresses long-term mitigation, preparedness, and community resilience through planning, vegetation management, public education, and interagency coordination. Together, the CWSPP and CWRP are complementary tools: the CWSPP supports tactical response readiness, while the CWRP guides strategic prevention and mitigation efforts.
City of Enderby CWRP	The 2025 CWRP aims to assess wildfire threats and risks to values within the municipal boundaries of the City of Enderby.	The area of interest for Enderby is entirely within Electoral Area F of the RDNO. Action items and recommendations throughout this plan may be applicable to the Enderby area and vice versa. Action



<b>Key Plans and Relationships to CWRP</b>		
<b>Plan Type</b>	<b>Description</b>	<b>Relationship to CWRP</b>
<b>Township of Spallumcheen CWRP</b>	The 2023 CWRP aims to assess wildfire threats and risks to values within the municipal boundaries of the Township of Spallumcheen.	items developed for the RDNO Electoral Area F CWRP should work in conjunction with the Enderby CWRP to promote wildfire resiliency to the entire area.  The AOI for Spallumcheen borders the southwest portion of Electoral Area F. Action items and recommendations throughout this plan may be applicable to the Spallumcheen area and vice versa. Action items developed for the RDNO Electoral Area F CWRP should work in conjunction with the Spallumcheen CWRP to promote wildfire resiliency to the entire area.
<b>Electoral Area F Official Community Plan (OCP) And the Kingfisher Local Area Plan</b>	The municipality's overarching land-use blueprint that sets long-term visions for growth, housing, transportation, infrastructure, environmental protection, and hazard management, guiding zoning and development decisions.	By embedding wildfire-hazard objectives and development-permit rules in the OCP, local governments give the Community Wildfire Resiliency Plan statutory backing, ensuring FireSmart standards, interface-risk mapping, and evacuation considerations are applied to every future subdivision and rezoning.
<b>Rural Evacuation Route Plan – Kingfisher/Mabel Lake</b>	This plan focuses on evacuation efforts for the rural community of Kingfisher/Mabel Lake and its single access transportation corridor. This plan helps to facilitate the rapid organization and implementation of an evacuation or shelter-in-place initiatives.	This plan will be reviewed for its impacts and implications of evacuations during wildfire emergencies. The evacuation route outlined in this plan will be assessed during the field work portion of the CWRP process to provide additional recommendations to reinforce the evacuation plan.
<b>RDNO Regional Housing Needs Report</b>	A statutory assessment that analyses current and future housing demand, affordability gaps,	Its demographic and growth forecasts help the Community Wildfire Resiliency Plan target emerging



<b>Key Plans and Relationships to CWRP</b>		
<b>Plan Type</b>	<b>Description</b>	<b>Relationship to CWRP</b>
	population trends, and projected growth across tenure types, guiding local governments in land-use and infrastructure planning to meet diverse community housing requirements.	neighbourhoods and vulnerable populations, align mitigation priorities with planned residential expansion, and integrate wildfire-safe design standards into future housing developments.
<b>RDNO Annexation Impact Study Phase 1 and Final Report (Reduced)</b>	An analytical document that evaluates the fiscal, service-delivery, infrastructure, and land-use implications of incorporating adjacent unincorporated areas into a municipality, outlining costs, benefits, and governance changes for both existing and newly annexed territories.	Its findings on expanded boundaries, population shifts, and service responsibilities inform updates to the Community Wildfire Resiliency Plan, ensuring that newly annexed lands—and their wildland-urban interface risks—are integrated into hazard mapping, mitigation priorities, and fire-protection resource planning.
<b>RDNO Regional Agricultural Plan</b>	A strategic framework that inventories farmland, identifies crop and livestock priorities, and recommends policies to protect agricultural land, support farm viability, and guide sustainable land- and water-use practices across the region.	By mapping farm clusters, irrigation infrastructure, and fuel loads (e.g., field edges, shelterbelts), the plan supplies data that the Community Wildfire Resiliency Plan uses to tailor mitigation around working landscapes, coordinate burn-window policies, and safeguard critical food-production assets from wildfire threats.
<b>RDNO Regional Employment Lands Action Plan</b>	An economic development strategy that inventories and designates industrial, commercial, and mixed-use parcels required to accommodate future jobs, establishes targets for land supply, and recommends infrastructure, zoning, and servicing actions to keep the regional employment base competitive and sustainable.	By pinpointing where new workplaces and worker concentrations will arise—often along transportation corridors and at the wildland edge—the plan provides essential inputs for the Community Wildfire Resiliency Plan to prioritize interface fuel mitigation, tailor evacuation and business-continuity measures, and embed FireSmart site standards in forthcoming employment nodes.



<b>Key Plans and Relationships to CWRP</b>		
<b>Plan Type</b>	<b>Description</b>	<b>Relationship to CWRP</b>
<b>Electoral Area F Parks and Culture Master Plan</b>	A long-range guide that inventories existing parks and trail corridors, sets priorities for new green space and facility investments, and outlines standards for habitat stewardship, vegetation maintenance, and public access.	Its mapping of open-space networks and maintenance practices enables the Community Wildfire Resiliency Plan to align fuel-breaks with trails, ensure defensible landscaping in parks, and leverage recreation routes for emergency access and evacuation.
<b>RDNO Regional Growth Strategy</b>	A high-level, multi-jurisdictional blueprint that sets long-term goals for population distribution, housing, employment, transportation, and environmental stewardship, guiding coordinated land-use and infrastructure decisions across the region.	The Regional Growth Strategy settlement patterns and growth nodes inform where the Community Wildfire Resiliency Plan must focus interface-risk mitigation, ensuring FireSmart policies, fuel breaks, and evacuation capacity are embedded in areas slated for future expansion.
<b>Okanagan Shuswap Land and Resource Management Plan</b>	A spatial blueprint that designates timber-harvest areas, old-growth reserves, wildlife corridors, and access routes within the forest district, setting operating rules and resource-management objectives for tenure holders.	Its zoning and harvest schedules give the Community Wildfire Resiliency Plan the data needed to align landscape-level fuel breaks, coordinate road access for suppression, and embed wildfire-risk reduction targets into ongoing forest-management prescriptions.
<b>Shuswap River Watershed Sustainability Plan</b>	A strategic framework that evaluates water quantity, quality, ecosystem health, and land-use pressures across a drainage basin, setting policies for source-water protection, flood control, and climate-resilient stewardship of streams, wetlands, and aquifers.	Its mapping of critical intakes, riparian fuel loads, and erosion-prone slopes lets the Community Wildfire Resiliency Plan target fuel breaks and post-fire recovery actions that safeguard drinking-water supplies and maintain watershed function during and after wildfires.



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*

<b>Key Bylaws and Relationships to CWRP</b>		
<b>Plan Type</b>	<b>Description</b>	<b>Relationship to CWRP</b>
<b>RDNO Zoning Bylaw</b>	A land-use regulation that designates what types of development (residential, commercial, industrial, agricultural, etc.) are allowed on each parcel, along with density, building setbacks, and other site standards that shape how and where communities grow.	By steering new construction and subdivision layouts away from high-hazard areas and embedding wildfire-resilient requirements (e.g., interface development permits, defensible-space setbacks), the zoning bylaw becomes a key tool for implementing CWRP recommendations and reducing long-term wildfire exposure.
<b>RDNO Subdivision Servicing Bylaw - Hydrants</b>	A municipal bylaw that specifies minimum fire-hydrant spacing, flow rates, and installation standards required in new subdivisions to ensure adequate water supply for firefighting before lots are approved and registered.	By mandating hydrant coverage that meets wildfire-suppression needs, the bylaw translates CWRP goals into enforceable infrastructure requirements, strengthening community water capacity and improving firefighter effectiveness during interface fire events.



## 3.0 Community Description

### 3.1 AREA OF INTEREST

The FCFS program recommends that every Community Wildfire Resiliency Plan (CWRP) delineate an Area of Interest (AOI) that mirrors local-government boundaries and captures the main clusters of development. For Electoral Area F, the AOI is the administrative boundary of Area F within the Regional District of North Okanagan (RDNO), encompassing roughly 185,988 hectares of the lower Shuswap River and Mara–Mabel Lake watersheds (Figure 1). Electoral Area F also encompasses Indigenous Reserve lands within the geographic boundaries for the Splitsin Band, which are not a part of the RDNO AOI and covered in the CWRP produced by the band. Subtracting the Reserve lands, the Electoral Area F AOI is 183,776 hectares.

Area F stretches from the Shuswap River flats southeast of Enderby through Grindrod and Mara to the forested foothills of Hunters Range and the lakeshores of Mara and Mabel Lakes. Settlement fans out along Highway 97A, Enderby–Mabel Lake Road, and the Mara–Kingfisher Forest Service Road, where farms, acreages, lakeside cottages, and seasonal resorts occupy the valley floor and benches. The AOI also includes Mabel Lake Provincial Park and large tracts of Crown forest east of the lakes.

Elevations climb beyond 2,000 m, transitioning from Interior Douglas-fir parkland at the valley bottom to cedar–hemlock mid-slopes and, higher still, Engelmann spruce–sub-alpine-fir stands on Hunters Range and surrounding ridges. This steep, continuous gradient creates a vertically stacked wildland-urban interface: croplands, homes, and recreation infrastructure back directly onto densely forested slopes. Reliance on a handful of long, single-access routes—Highway 97A, Enderby–Mabel Lake Road, and narrow forest service roads—complicates wildfire response and evacuation planning across the AOI.

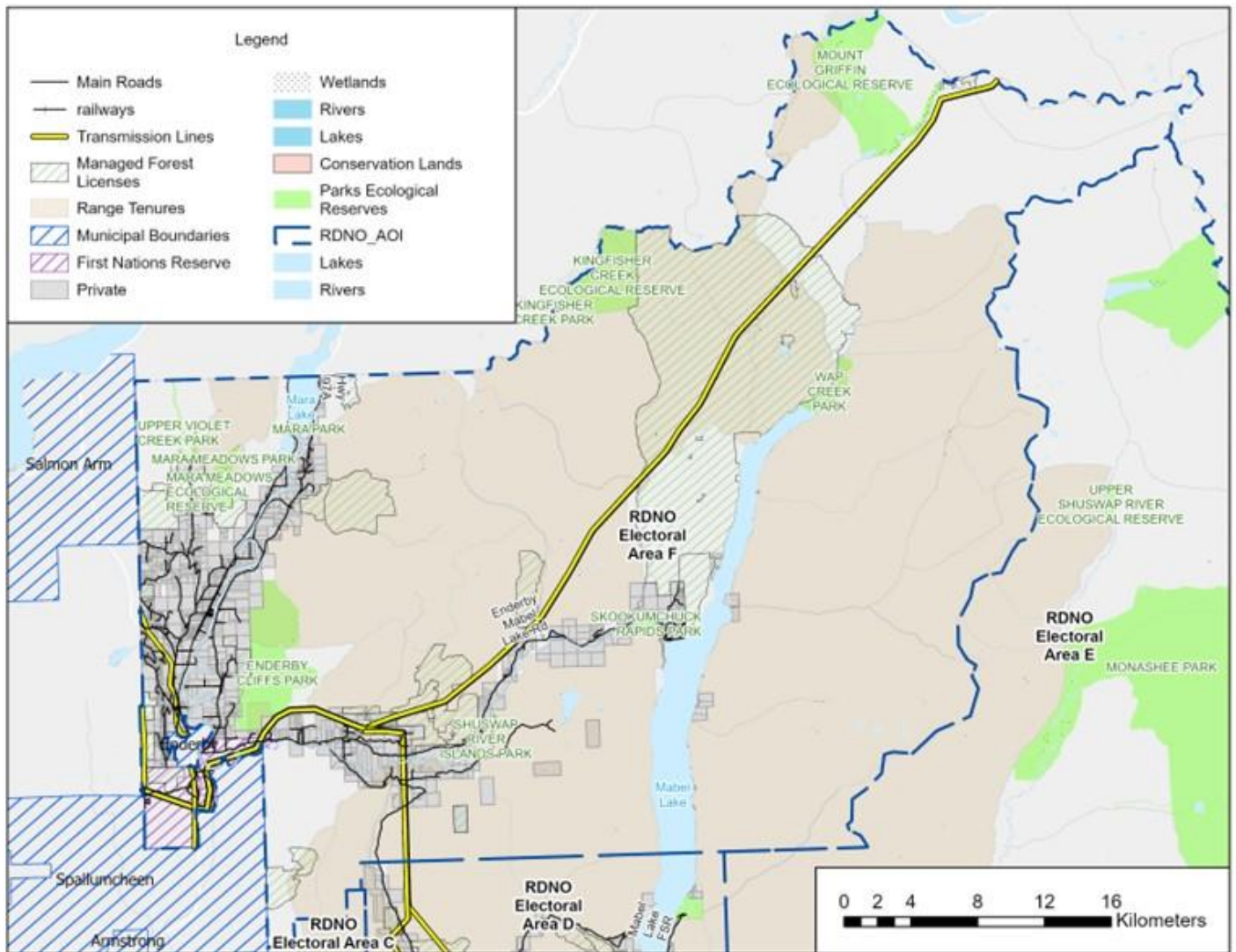


Figure 1. Overview map of RDNO Electoral Area F Area of Interest.



### 3.2 ELIGIBLE WILDLAND-URBAN INTERFACE

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

Historically, a two-kilometer buffer was assigned to areas with a structure density exceeding six structures per square kilometre. However, for the purpose of the provincial FireSmart Community Funding and Support (FCFS) structure, **the eligible WUI within this CWRP is defined as a maximum of one kilometer from where structure density is greater than six structures per square kilometre<sup>1</sup>.**

For the Electoral Area F CWRP, the eligible WUI land base encompasses 24,166 hectares (Figure 2). The land jurisdiction within the WUI zone is as follows:

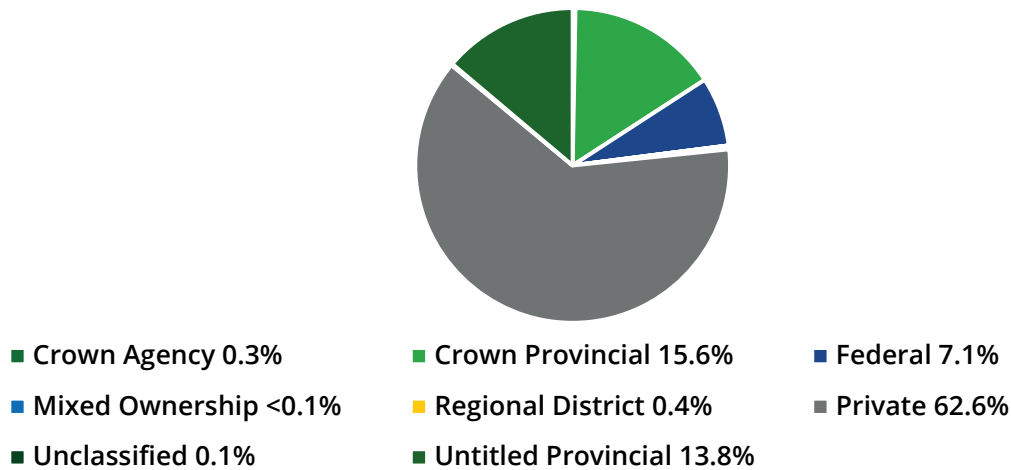


Figure 2. Land ownership within the Wildland Urban Interface of Electoral Area F.

**Only areas which fall on Provincial (7,147.6ha, 29.7%) and Regional District (93.0ha, 0.4%) land is eligible for mitigation funding.** This is the funding through the FCFS funding which allows for wildfire risk analysis and mitigation fuel treatments to be conducted. The WUI for Electoral Area F surrounds the communities along Highway 97A including rural Enderby, Grindrod, Grandview Bench, and Mara (Figure 3). The WUI also follows along the valley bottom of Enderby Mabel Lake Road towards Kingfisher. There are two isolated pockets of WUI on the east side of Mabel Lake.

<sup>1</sup> [FireSmart Community Funding and Supports](#)

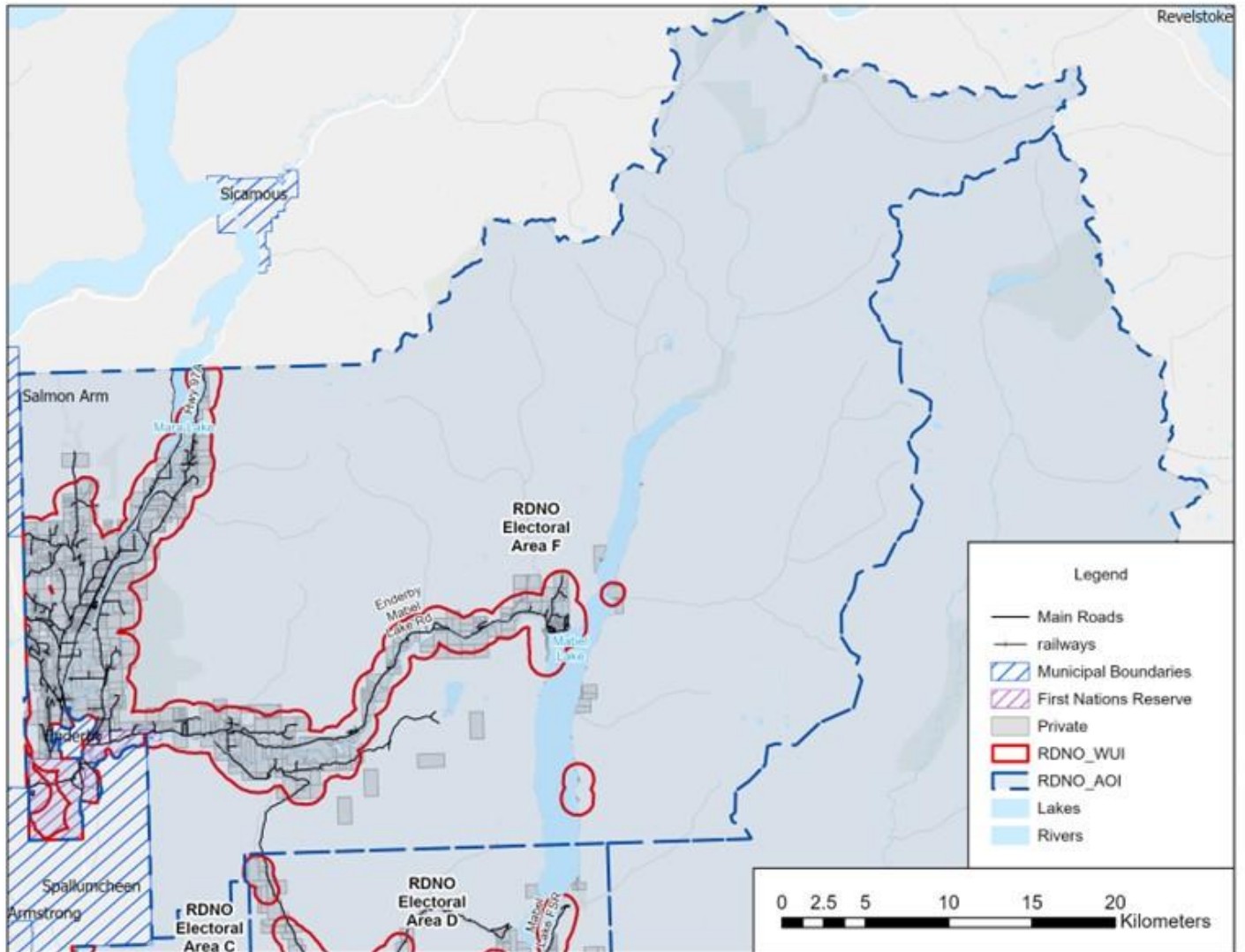


Figure 3. Map of Wildland Urban Interface for Electoral Area F.



### 3.3 COMMUNITY INFORMATION

Electoral Area F is a sparsely populated, largely rural district (2.5 people/km<sup>2</sup> over 1,767 km<sup>2</sup>) whose permanent population grew from 4,000 in 2016 to 4,362 in 2021 (a 9.1 % rise) but still accounts for under 5% of RDNO residents. The area's housing market is heavily skewed toward seasonal and recreational use around Mara and Mabel Lakes, leaving roughly one-quarter of its 2,325 dwellings vacant for much of the year. This influx of vacationers and part-time owners swells local numbers during the summer wildfire season, complicating evacuation planning and outreach strategies.

Eighty-two percent of households own their homes and 89% of the stock is single detached, yet more than 70% of households contain only one or two people, resulting in many large, older dwellings that are expensive to defend and maintain. Median owner income sits below the regional figure while renter incomes are comparatively robust, but a high unemployment rate (9.1%) and an ageing workforce concentrated in agriculture, forestry, construction and manufacturing create pockets of vulnerability—particularly among single adults aged 45-64 and seniors, who together represent a third of all households in core housing needs.

Core needs are unusually driven by homeowners: 1 in 17 owners and 1 in 3 renters struggle, often because many dwellings require major repairs and because there is no dedicated social-housing stock or local homelessness services (residents must rely on facilities in Vernon). Although new-build activity runs 11 units per 1,000 residents—higher than other rural areas—much of this is vacation development rather than affordable supply, and population projections show little long-term growth, meaning mitigation priorities will hinge on retrofitting and hardening an ageing, dispersed housing stock while tailoring outreach to seasonal visitors, older owner-occupiers, and low-income singles who may lack resources to conduct FireSmart upgrades.

### 3.4 GREEN SPACES & CULTURAL SITES

Green spaces include parks, gardens, cemeteries, naturalized spaces, trails and pathways, linear parks and greenways, rights-of-way and boulevards. A list of identified RDNO Area F parks that could qualify as green spaces are listed below (Table 4).

Cultural Sites are areas of historical significance to Indigenous communities. These include, but are not limited to, culturally modified trees, traditional dwellings, burial sites, and ceremonial sites. Non-archaeological cultural heritage in BC is generally not protected under law, however their use and access are constitutionally protected Aboriginal right. [Cultural Sites and Green Spaces Assessments](#) assess site vulnerability and may replace the need for Fuel Management Prescription development on smaller sites that have levels of human impact and are not being maintained solely as natural spaces. Vegetation management activities in cultural sites and green spaces look to implement fire-resistant landscaping practices and removing or reducing flammable plants and vegetation.



*Table 4. Green Spaces within the Electoral Area F AOI.*

Green Space	Type/Descriptor	Location
Grindrod Park	Community park. Open maintained grass with access to the river. Grindrod Hall is located here. 3.69	2 <sup>nd</sup> Ave, Grindrod
Fall Creek Walkway	Natural area park. 0.6 ha	Enderby Mabel Lake Rd
3246 Mabel Lake Road	Natural area park with forest and cabin (possibly historic). 1.92 ha	3246 Mabel Lake Road
26 Leighton Road	Natural area park. 0.06 ha	26 Leighton Road
Kingfisher Park	0.98 community park.	16 Kingfisher Rd

### 3.5 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 Electoral Area F. Values at risk 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.

#### 3.5.1 Human Life and Safety

Human life and safety are the highest priority in the event of a wildfire. A key consideration is the evacuation and safe egress of threatened areas when necessary. Evacuations can be a complex and dynamic nature of wildfire incidents. Orderly evacuation takes time and safe egress routes can be compromised by traffic congestion and accidents, or the rapid and unpredictable behaviour of wildfires.

##### 3.5.1.1 Location & Relative Isolation

Electoral Area F spans the rural landscapes around Enderby and the Shuswap River corridor, extending east along Enderby–Mabel Lake Road toward the Kingfisher/Mabel Lake area and south-east through Trinity Valley. The valley bottoms carry farms and small settlements, while steep, forested side-slopes and benches hold long stretches of contiguous fuels. Settlement is low-density and dispersed, with many homes several kilometres from the nearest fire-rescue hall and reachable only by narrow collectors or dead-end spurs that climb into timber. Summer recreation substantially increases the population at lakes, campgrounds, and resorts—especially at Mabel Lake—precisely when fine fuels are driest and lightning activity peaks. Bridges over the Shuswap River, narrow canyon



sections, and long single-access corridors create evacuation pinch-points and heighten the consequences of a road closure during an interface event.

*Table 5: Regional Egress Network*

<b>Regional Egress Network</b>			
<b>Route</b>	<b>Character</b>	<b>What it Serves</b>	<b>Redundancy / Issues</b>
Hwy 97A	Provincial north–south arterial through Enderby	Regional movement to Salmon Arm (north) and Vernon (south); link for Grandview Bench/Grindrod areas	High capacity but urban choke points in Enderby; evacuation traffic can back up at signals/bridges.
Hwy 97B	Provincial connector to Salmon Arm	Western portions of Area F (Grandview Bench)	Useful alternate if 97A north is constrained; merges into urban network near Salmon Arm.
Enderby–Mabel Lake Rd	Two-lane rural collector following Shuswap River	Ashton Creek, Kingfisher, Mabel Lake resorts/campgrounds and airstrip	Primary spine for the eastern AOI; multiple bridge and canyon pinch-points; limited shoulders and few turn-arounds.
Trinity Valley Rd	Long, winding two-lane rural collector over forested benches	Trinity Valley residents; secondary connection to Hwy 6 (Lumby)	Important alternate to/from the east; steep grades, and potential debris/slide closures.
Local FSRs (e.g., Kingfisher/Mabel Lake FSRs)	Industrial gravel roads	Backcountry residences, recreation sites	Not dependable for public evacuation: variable maintenance, gates, washouts, and poor wayfinding; use only as managed/escorted contingency.



*Table 6: Egress Concerns*

Egress Concerns		
Area/Community Type	Primary Egress	Specific Concern
Kingfisher / Mabel Lake resorts & campgrounds	Enderby–Mabel Lake Rd (single spine)	Seasonal population surge; bridges and narrow canyon segments create single-point failures; smoke can rapidly reduce visibility for motorist egress.
Ashton Creek clusters	Enderby–Mabel Lake Rd	Close proximity to continuous fuels on valley side-slopes; limited local loops mean short segments can isolate pockets of homes.
Trinity Valley	Trinity Valley Rd (to 97A via Enderby or to Hwy 6 via Lumby)	Long egress distance, steep grades, few safe refuges; slide/wildfire could sever route mid-valley.
Grandview Bench	Grid of rural roads to 97A/97B	Agricultural traffic and narrow local bridges; rapid congestion at highway junctions during mass movement.
Rural spurs (e.g., hillside cul-de-sacs)	Single access	Dead ends with limited turn-arounds for apparatus and trailers; potential for entrapment if wind shifts.

### 3.5.2 Emergency Management

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



owners, public sector agencies, service providers, emergency management practitioners and the public.

Area F has a dedicated Rural Evacuation Route Plan: Kingfisher/Mabel Lake (Sept 2020) prepared for RDNO by Frontline Operations Group. The plan is built on BC Emergency Management System/Incident Command System and lays out roles and responsibilities, decision-making, and coordination for evacuations. It defines evacuation routes, zones and phasing, destination assignments, assembly points and reception centres, along with traffic management strategies, control points, notification methods, and provisions for at-risk populations, pets, and livestock. It also documents key evacuation assumptions (e.g., self-evacuation rates, transportation support needs, and shelter preferences) to inform staffing and logistics.

Given Area F's multiple single-access corridors and shared choke points, the electoral area would benefit from larger-scale planning that standardizes cross-community roles, zones, detours, traffic control at highway junctions, and reception/re-entry practices—so simultaneous events do not produce conflicting directions or duplicated effort across the AOI.

### **3.5.3 Fire Suppression Capabilities**

Area F receives primary fire suppression through contracted coverage by the Enderby & District Fire Department for the Shuswap River Fire Protection Area, with additional contracted coverage from the CSRD's Twin Lake/Grandview Bench Fire Department. Departments in the region train weekly and have received wildland cross-training, but Area F still has limited fire protection coverage in places, long response distances on single-access roads, and some pockets with no hydrants/limited flows (notably Kingfisher and Grindrod). A Fire Danger Class board is not in place in Area F, which reduces day-to-day public risk communication.

Water-supply constraints are significant in several local systems: Kingfisher uses a treated lake intake feeding two reservoirs and 35 standpipes that do not produce adequate flows for fire protection; Grindrod relies on a treated river intake with backup power but no reservoir—and both communities report limited flows and no hydrants for firefighting.

BC Wildfire Service (BCWS) provides the primary wildland fire response across most of Area F, operating through the Vernon Fire Zone within the Kamloops Fire Centre. In local incidents, BCWS typically leads suppression on forests/grasslands and works in unified command with RDNO and nearby fire departments; municipal partners focus on structure protection, while BCWS handles wildland tactics (crews, heavy equipment, and aircraft as available). Where no local fire department covers an area, BCWS is the main field agency for wildfire operations, with RDNO supporting evacuations, public information, and logistics.

### **3.5.4 Critical Infrastructure**

Critical infrastructure assets are publicly or provincially owned structures or facilities that are essential to a community's health, safety, security, economic well-being, and effective government function. Protection of these assets during a wildfire event is crucial for emergency response preparedness and effectiveness, ensuring prompt restoration of essential services and coordinated evacuations.



Critical infrastructure includes 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 impacts and losses to wildfire. Area F's critical infrastructure is dispersed along the Shuswap River corridor and in rural benchlands, with services concentrated around Enderby/Grindrod and thinning rapidly toward Ashton Creek, Kingfisher, and Trinity Valley<sup>2</sup>. Power and communications rely largely on overhead distribution with valley-top towers and patchy cellular coverage in key eastern pockets (Kingfisher/Mabel Lake east & west), making backup power and radio/satellite contingencies important for continuity during interface events.

Backup capability exists for several utilities and facilities—Kingfisher and Grindrod water utilities have generator support (utility pumps), RDNO EOC/main office has generator/IT redundancy, RDNO utilities' data radio links hold ~48-hour battery backup, and Emergency communication/fire-department communications have battery power—but duration is limited, and some pressure zones elsewhere in the region lack generators.

Community water systems are a mix of small utilities and private wells. In Area F, Kingfisher draws from Mabel Lake, pumps to two reservoirs, and distributes via 35 standpipes that do not provide adequate flows for fire protection; Grindrod treats river-sourced water with backup power but no reservoir; hydrants are not present in these systems, leaving fire operations dependent on drafting, tender shuttles, and SPU planning.

Transportation and logistics hinge on Hwy 97A/97B and the Enderby–Mabel Lake Road spine. Bridges, canyon narrows, debris-slide history (e.g., Fall Creek, Cooke Creek), and long single-access segments create high-consequence pinch-points for evacuation, responder access, and resupply during wildfires<sup>3</sup>.

### 3.5.5 Community Watersheds and Water Supply

Potential impacts to watersheds that provide surface water resources for rural 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. In extreme scenarios, the water supply may need to be temporarily or permanently abandoned, necessitating development of new infrastructure. This process may take several years to complete and requires considerable financial investment and funding.

Potable water in Area F is a patchwork of private wells and small community systems distributed along the Shuswap River corridor and rural benches. Mapping shows a high density of individual wells around Enderby/Grindrod and scattered clusters east toward Ashton Creek and Kingfisher, alongside numerous licensed works on streams and the Shuswap River. Surface-water sources (e.g., Mabel Lake, Shuswap River tributaries such as Kingfisher/Cooke creeks) support local utilities and irrigation, but most neighbourhoods do not have hydrants and will depend on pre-mapped draft sites (river/lake access, standpipes/dry hydrants) and tender shuttles for firefighting water.

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<sup>2</sup> CWRP Community Questionnaire

<sup>3</sup> Rural Evacuation Route Plan – Kingfisher/Mabel Lake, Frontline Operations Group Ltd, 2020



Two community systems are notable in the eastern AOI. Kingfisher draws from Mabel Lake, pumps to two reservoirs, and distributes through standpipes that do not provide adequate fire flows; hydrants are not present. Grindrod treats river-sourced water with backup power at the intake but has no reservoir storage and no hydrants, limiting sustained fire flows. Across the AOI, many higher-elevation pockets rely on pumped pressure zones that are vulnerable to power outages; where generators exist, runtime is finite. Grindrod generator is on natural gas, which provides an extended runtime, where Mable Lake generator is diesel with no runtime information. Given the number of wells and small intakes, drought and seasonal variability can constrain availability, and limited access to the river/lake (steep banks, soft launches, private frontage) can slow drafting unless sites are pre-improved.

#### **Implications for wildfire operations and recovery:**

- Prioritize an Area F draft-site atlas (Shuswap River, Mabel Lake, major tributaries) with GPSed access points, apron/turn-around specs, and year-round usability (low-water and nighttime).
- Confirm generator coverage and expected runtime for all pump stations/pressure reducing valves; identify where portable generators or quick-connects are required.
- For non-hydranted clusters, pre-plan tender shuttle routes and SPU staging; for Kingfisher/Grindrod, define minimum fire-flow workarounds (portable tanks/relays).
- Expect post-fire turbidity and organic loading to overwhelm small treatment works and intakes; pre-identify alternative sources/interties, trucked-water options, and protection measures (intake booms, upstream SPU to reduce ash/sediment).
- Secure memorandum of understanding/permissions with marina/resort and private irrigation licensees for emergency drafting, and post public “draft point” signage where appropriate.

Overall, Area F’s water-supply profile—many wells, small surface-water systems without hydrants, and power-dependent pumping—means firefighting effectiveness hinges on draft-site readiness, mobile water supply, and backup power planning, while post-wildfire water quality protection is critical for rapid community recovery.

#### **3.5.5.1 Electric Power**

Area F is served primarily by overhead BC Hydro distribution, with the densest pole and transformer network in and around Enderby/Grindrod and longer, lightly branched feeders following the Enderby–Mabel Lake Road corridor toward Ashton Creek and Kingfisher/Mabel Lake. A BC Hydro transmission circuit traverses the electoral area and ties into the regional grid near the valley bottom. From these points, overhead primary/secondary lines step down to pole-mounted transformers supplying farms and rural clusters on benches above the Shuswap River. Underground segments appear mainly at newer subdivisions and commercial frontages close to Enderby; east of Ashton Creek the system is largely overhead on wood poles, with long spans across steep, forested slopes and several river/bridge crossings. This creates single-corridor vulnerabilities: windthrow or wildfire along the canyon sections, or a structure failure at a river crossing, could interrupt service to multiple communities along the spine at once.

Dependencies & backup: Telecom backhaul and roadside cabinets are concentrated near Enderby, with fewer sites eastward; many sites rely on battery-only backup, so extended outages may affect



both public alerts and 911 call reliability. For critical facilities (pump stations, reception/ESS sites, telecom/tower compounds), prioritize defensible-space/FireSmart treatments, verify generator sizing and fuel resupply, and pre-plan portable-generator connections for key pressure zones.

### 3.5.6 Cultural Values

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

### 3.5.7 High Environmental Values

Electoral Area F contains a mosaic of high-value environmental features anchored by the Shuswap River corridor and Mabel Lake. Riparian habitats, wetlands, and valley-bottom floodplains support fish and aquatic ecosystems and act as the primary ecological spine through Kingfisher/Mabel Lake and Ashton Creek–Riverside. Local plans highlight the need to identify and protect environmentally sensitive areas and connectivity corridors as growth and peak-season recreation increase pressures on land and water<sup>4</sup>.

The Okanagan-Shuswap Land and Resource Management Plan provides region-wide management direction for Crown lands in Area F—covering water, fish/aquatic habitat, wildlife, riparian/wetlands, biodiversity and access—forming the policy backdrop for conserving habitat and managing competing land uses<sup>5</sup>.

Large portions of the valley floor are in the Agricultural Land Reserve (ALR). Agriculture and riparian protection intersect closely along the Shuswap River and tributaries, requiring careful application of provincial riparian standards and farm-practice guidance. Regionally, ALR lands constitute a significant share of the RDNO land base, and the Regional Agricultural Plan emphasizes sustainable practices, water management, and climate resilience—key co-benefits for habitat and watershed health in Area F<sup>6</sup>.

The Area F Parks & Culture Master Plan underscores that Area F (≈180,000 ha) includes a network of parks, trails, and water access sites managed by multiple agencies, and positions natural-space acquisition/management to protect sensitive ecosystems and cultural features while connecting corridors<sup>7</sup>.

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<sup>4</sup> Kingfisher Local Area Plan, MMM Group, 2016

<sup>5</sup> Okanagan Shuswap Land and Resource Management Plan, Ministry of Forests, 2000

<sup>6</sup> Regional agriculture Plan, RDNO, 2015

<sup>7</sup> Area F Parks and Culture Master Plan, RDNO, 2023-2033



At the Kingfisher local scale, community policy points to monitoring water resources, managing carrying capacity during peak use, and improving park and access planning so ecological values are not eroded by seasonal crowding.

The BC Conservation Data Centre (CDC) provides information about species and ecosystems at risk through the BC Species and Ecosystems Explorer, and CDC iMap. Recorded occurrences of Red and Blue listed animals and ecological plant communities at risk within the AOI have been summarized in Table 7.

A taxon or ecological community on the Red List has been assessed as *Extirpated*, *Endangered* or *Threatened* in BC, or is a strong candidate for one of those designations. These species face the highest risk of disappearing from the province, so they are the first in line for habitat safeguards, recovery strategies and, where warranted, legal designation under provincial or federal legislation.

The Blue List flags native species and communities of *Special Concern* (the former term was *Vulnerable*). They are not yet classified as Endangered or Threatened, but their small numbers, limited range or sensitivity to disturbance make them more likely to slide toward the Red List if conditions worsen. Blue-listed elements receive extra monitoring, research and proactive management aimed at preventing further decline.

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

Common Name	Scientific Name	Element Type	BC List Status
Painted Turtle - Intermountain - Rocky Mountain Population 2	Chrysemys Picta Pop. 2	Vertebrate Animal	Blue
Sheila Phipps' Hawthorn	Crataegus sheila- phippsiae var. sheila- phippsiae	Vascular Plant	Blue
Dark-Green hawthorn	Crataegus Atrovirens	Vascular Plant	Blue
Round-Leaved Hawthorn	Crataegus Orbicularis	Vascular Plant	Blue
Okanagan Hawthorn	Crataegus Okanaganensis Var. Longispina	Vascular Plant	Red
Yellow Widelip Orchid	Liparis loeselii	Vascular Plant	Blue
Mountain Moonwort	Botrychium Montanum	Vascular Plant	Blue



Common Name	Scientific Name	Element Type	BC List Status
Brown Beak-rush	Rhynchospora Capillacea	Vascular Plant	Blue

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



## 4.0 Wildfire Risk Assessment

The wildfire risk assessment is a decision support tool intended to determine wildfire risk reduction activities and opportunities that will increase RDNO Electoral Area F’s resiliency to wildfire.

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

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

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

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

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

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

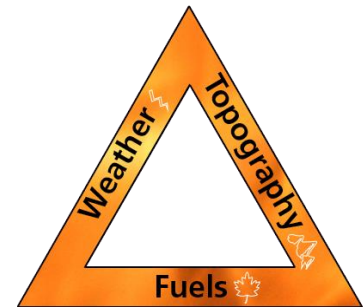


Figure 4. The fire behaviour triangle – interacting components that drive a wildfire

### 4.1 LOCAL WILDFIRE ENVIRONMENT

#### 4.1.1 Topography

Topography describes the landscape that can influence fire behaviour including elevation, slope steepness, and slope direction (e.g., south-facing). Topography also includes prominent land features such as canyons and valleys. All these features can increase, or slow wildfire spread. Elevation influences weather conditions (like air temperature). The slope aspect influences vegetation growth and dryness (south-facing slopes in the northern hemisphere have more heat from the sun and are drier). Slope also influences how fast a fire moves: faster uphill due to pre-heating of vegetation from

rising hot air and flame, and slower downhill. Additionally, features such as valleys influence wildfire spread by directing wind flow.

Electoral Area F stretches along valley bottom following along the Shuswap River flats near Enderby through Grindrod and Mara to the forested foothills of Hunters Range and the lakeshores of Mara and Mabel Lakes (Figure 5). The Shuswap River itself runs from Mabel Lake, travelling west to Enderby, then North to Mara Lake as part of the Shuswap River Basin. Mabel lake is a large interior lake within the Shuswap Highlands at the border of the Monashee Mountains. The Sawtooth Range, a sub-range of the Monashee Mountains, makes up the easternly portion of the AOI. Towards the western portion of the AOI is the Enderby Cliffs. At the summit, the cliffs stand at 1190m and drop dramatically to 330m at the bottom. The cliffs mark the transition between the Okanagan Basin and the Shuswap Highlands.

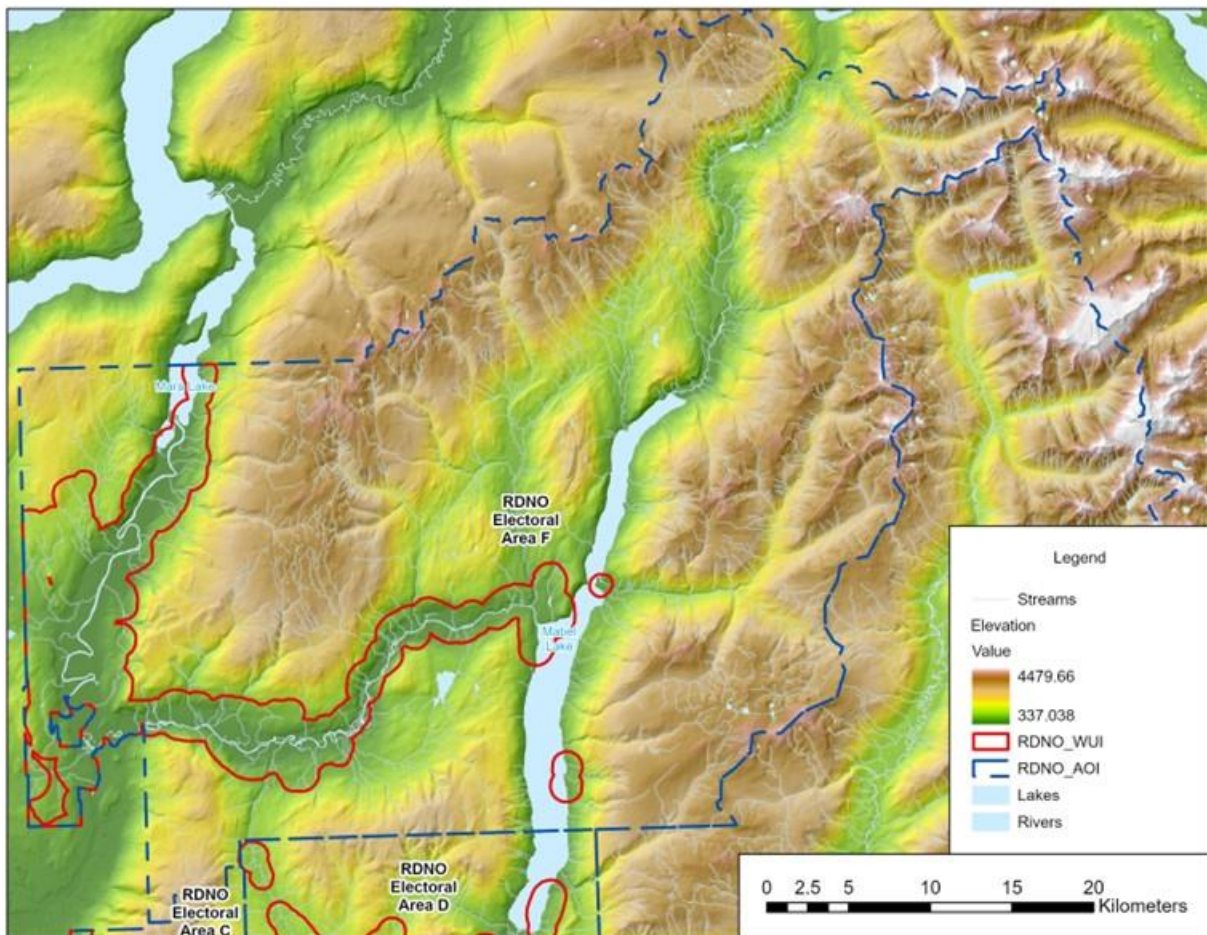


Figure 5. Digital Elevation Map of the RDNO Electoral Area F.

### 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, predictions can be made for the natural disturbance regime of those ecosystems and the potential effects of wildfire.

In total four BEC zones fall within the AOI of Electoral Area F, including the Engelmann Spruce – Subalpine Fir (ESSF), Interior Cedar – Hemlock (ICH), Interior Douglas-fir (IDF), and the Interior Mountain-heather Alpine (IMA). A total of 14 subsequent subzones can be found ranging from very dry hot climates at valley bottom, to very wet cool climate in the high elevation mountains (Figure 6).

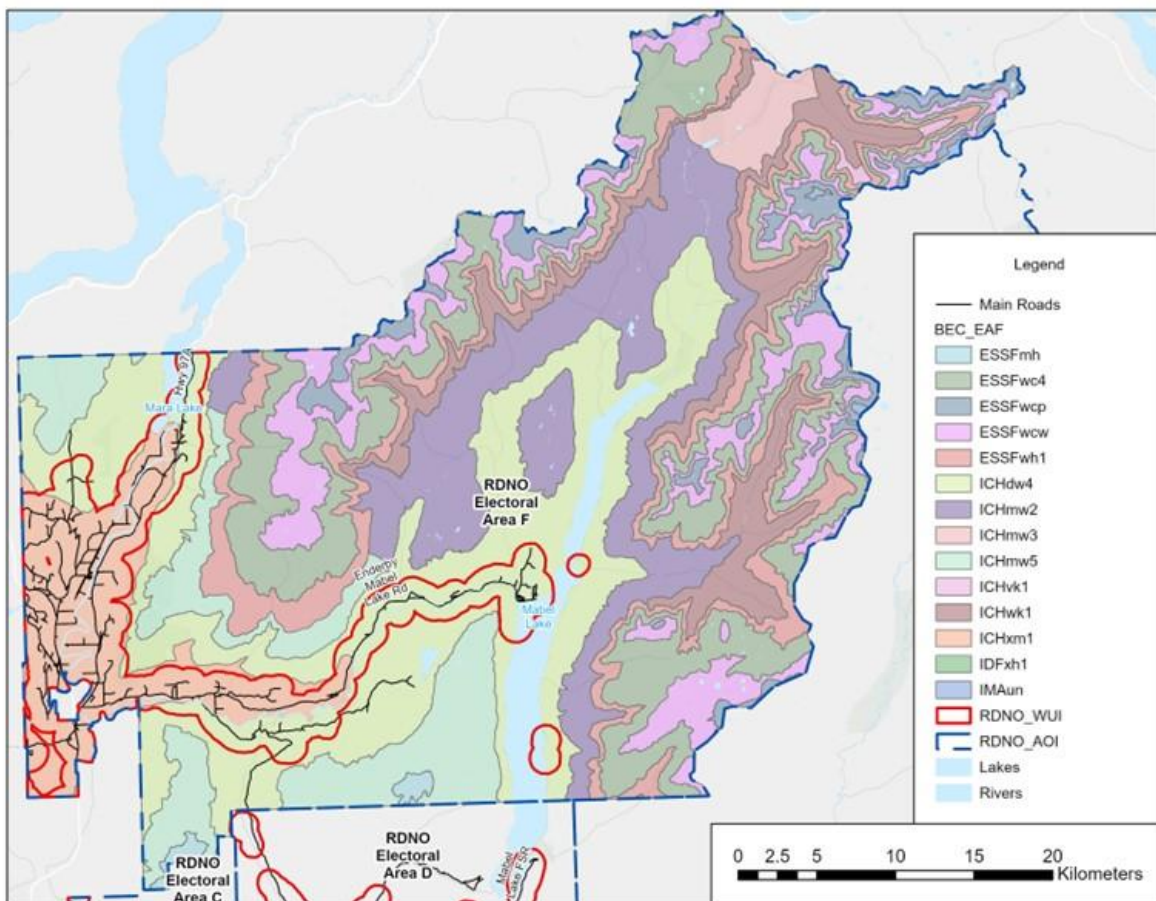


Figure 6. The Biogeoclimatic (BEC) Zones within the RDNO Electoral Area F.



Table 8 below describes each characteristic climates, species composition, and reaction to wildfire of each of the BEC zones that fall within Electoral Area F.

**Table 8. Descriptions of the Biogeoclimatic (BEC) zones which fall within the RDNO Electoral Area F.**

BEC Zone	Description
<b>Engelmann Spruce – Subalpine Fir (ESSF)</b>  <i>mh (Moist Hot)</i> <i>wc4 (Selkirk Wet Cold)</i> <i>wcp (Wet Cold Parkland)</i> <i>wcw (Wet Cold Woodland)</i> <i>wh1 (Columbia Wet Hot)</i>	<p>Uppermost forested ecosystem in most of interior British Columbia, often found bordering alpine/tundra, or above ICH zones. Characterized by cold, moist, and snowy continental climate. Long winters are followed by cool, short summers. Growing seasons are short. Terrain is often mountainous, steep, and rugged with the exception of high plateaus in the Shuswap highlands. The ESSF includes continuous forests and subalpine parklands at high elevations. Engelmann spruce and Subalpine Fir are the dominant climax tree species. Lodgepole pine is a widespread seral species following wildfires.</p>
<b>Interior Cedar Hemlock (ICH)</b>  <i>dw4 (Shuswap Dry Warm)</i> <i>mw2 (Solcan Moist Warm)</i> <i>mw3 (Thompson Moist Warm)</i> <i>mw5 (Granby Moist Warm)</i> <i>kv1 (Columbia Very Wet Cool)</i> <i>wk1 (Shuswap Wet Cool)</i> <i>xm1 (Shuswap Very Dry Mild)</i>	<p>The ICH occurs at lower to middle elevations of southeastern British Columbia between 400m to 1000m elevation. Distinguished by deep, heavy snowpacks (&lt;6m) in winters, which are cool and wet. The growing season is short due to lingering snowpack. The summers are warm and dry, but the zone is known to be one of the wettest and most productive in the interior of the province. The ICH hosts the highest diversity of tree species with Western redcedar and Western hemlock as the dominant climax species. However, white spruce, Engelmann spruce, their hybrids, and subalpine fir are also common. Western larch, Douglas-as, and western white pine are common seral species. Most forests within the ICH are known to regenerate quickly following wildfires.</p>
<b>Interior Douglas-fir (IDF)</b>  <i>xh1 (Okanagan Very Dry Hot)</i>	<p>The Interior Douglas-fir zone is located in southern BC at mid-low elevations of the southern Rocky Mountain Trench, the southern portion of the interior plateau, and on leeward slopes of the Coast mountains. Although the dry IDF zone is typically found above the Ponderosa Pine zone, it experiences less severe soil moisture deficits. Forests are dominated by Douglas-fir, supplemented with lesser amounts of trembling aspen, ponderosa pine, lodgepole pine, and western redcedar, with other tree species in minor quantities. The stands are typically open, featuring large, mature Douglas-fir trees possessing fire-resistant bark. Although discrepancies in temperature and precipitation exist between subzones, the fire environment is relatively consistent across the entire zone.</p>
<b>Interior Mountain-heather Alpine (IMA)</b>	<p>Alpine occurs at high elevations that are typically cold for most of the year, with high winds and frequent snow. This BEC zone is void of trees, and vegetation is restricted to low shrubs, mosses, flowers,</p>



BEC Zone	Description
	and sparse grass. Disturbances, including wildfires, can be detrimental to these environments, taking many years to reestablish due to the very short growing season and delicate ecosystems.

#### 4.1.2.2 Natural Disturbance Type

In British Columbia, fire regimes are broadly categorized according to Natural Disturbance Type (NDT) classifications, which consider the frequency and severity of disturbances. These classifications range from NDT1 to NDT5. Within Electoral Area F, we find all 5 of the NDT's (Figure 7).

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

##### **Natural Disturbance Type 1 (NDT 1) – Rare, gap-driven disturbance**

These forests sit in the wettest corners of BC—the wetter Interior Cedar–Hemlock, and a few cool Engelmann Spruce–Subalpine Fir units can be found at the higher elevations around Mount Griffin and Finlayson Lakes. Because they receive abundant rain, wind and cloud cover, lightning ignitions are scarce, and surface fuels stay damp much of the year. Instead of large stand-replacing fires, change comes slowly: single wind-thrown trees, small beetle pockets or local blowdowns open scattered holes in the canopy while the surrounding forest continues to age. As a result, multi-layered old growth dominates the landscape for centuries, and truly stand-initiating events are so rare that many sites have not reset since the last major glaciation.

##### **Natural Disturbance Type 2 (NDT 2) – Infrequent, stand-initiating events**

These wet-to-moist sub-zones of Interior Cedar–Hemlock, and Engelmann Spruce–Subalpine Fir, are found at Wap Lake. These zones reset only rarely—on average about once every two centuries. Most wildfires are moderate in size and leave scattered “islands” of green where moist gullies, rocky knobs or sheer luck spare the trees. After a prolonged drought, larger burns can occur, but the prevailing picture is broad tracts of mature, even-aged forest surrounding younger patches. In long-undisturbed variants such as ESSF, those even-aged stands gradually develop multi-storied canopies and dense accumulations of snags and veteran trees that survived earlier fires. Overall, NDT 2

<sup>8</sup> 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.



landscapes are defined by extensive mature forest, with a smattering of younger stands where the last fire or windstorm hit.

### ***Natural Disturbance Type 3 (NDT 3) – Frequent, Stand-Initiating Fire Landscapes***

NDT 3 applies to much of BC’s Interior and includes the Montane Spruce (MS), and the drier, colder variants of the Engelmann Spruce–Subalpine Fir (ESSF) zone found around Mabel Lake. These are mid- to high-elevation forests with cold winters, warm summers and plenty of lightning. Historically, a stand-replacing or “stand-initiating” fire swept through every 150 years, resetting large patches of lodgepole pine, trembling aspen and young spruce-fir while leaving pockets of older timber on moist north slopes and along streams. The result is a natural patchwork of even-aged stands of many sizes, stitched together by riparian strips, wetlands and rocky ridges.

### ***Natural Disturbance Type 4 (NDT 4) – Fire-Maintained Forests & Grasslands***

NDT 4 covers BC’s hottest, driest valley bottoms and low benches—places like the Ponderosa Pine, Interior Douglas-fir and Bunchgrass zones you see around the lower section of the Shuswap River east of Enderby. Before settlement, lightning and Indigenous burning swept through these landscapes every few years, keeping tree canopies widely spaced, encouraging bunchgrass and shrubs, and limiting heavy fuel build-ups. Although rare—especially in Ponderosa Pine—high-intensity, stand-initiating crown fires still occur, historically every 150–250 years in the Interior Douglas-fir zone. Old forest in this system is anything older than about 250 years, and much of the land serves as rangeland, both forested and open. The enduring consequences of fire suppression on wildfire dynamics in North America are garnering growing attention. Decades of effective fire exclusion, coupled with the suppression of Indigenous cultural burning traditions, have resulted in a fire deficit in certain regions. In British Columbia. These practices have contributed to the densification of forest stands compared to the pre-suppression era in certain areas, consequently elevating the risk of large, high-intensity wildfires.<sup>9</sup> These alterations may disrupt the natural disturbance regime, highlighting the need for proactive management strategies to address these challenges.

### ***Natural Disturbance Type 5 – Alpine and Near-Treeline Ecosystems***

NDT 5 sub-zones occur within the Interior Mountain-heather Alpine, Mountain Hemlock, and high-elevation Engelmann Spruce–Subalpine Fir zones found at the high elevations of the Sawtooth Range and Joss Mountain, at or just below treeline. Here, a short, harsh growing season and sharp variations in slope, aspect, and exposure produce strongly patterned vegetation. Wildfire is rare as a disturbance type but where it occurs it has a dramatic effect by weakening or killing plants and causing long-term shifts in the position of the treeline, while cold temperatures greatly slow post-fire recovery. Most sites therefore remain in long-lived, late-successional (climax) conditions.

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<sup>9</sup> Parisien, M. A., Barber, Q. E., Bourbonnais, M. L., Daniels, L. D., Flannigan, M. D., Gray, R. W., ... & Whitman, E. (2023). Abrupt, climate-induced increase in wildfires in British Columbia since the mid-2000s. *Communications Earth & Environment*, 4(1), 309.

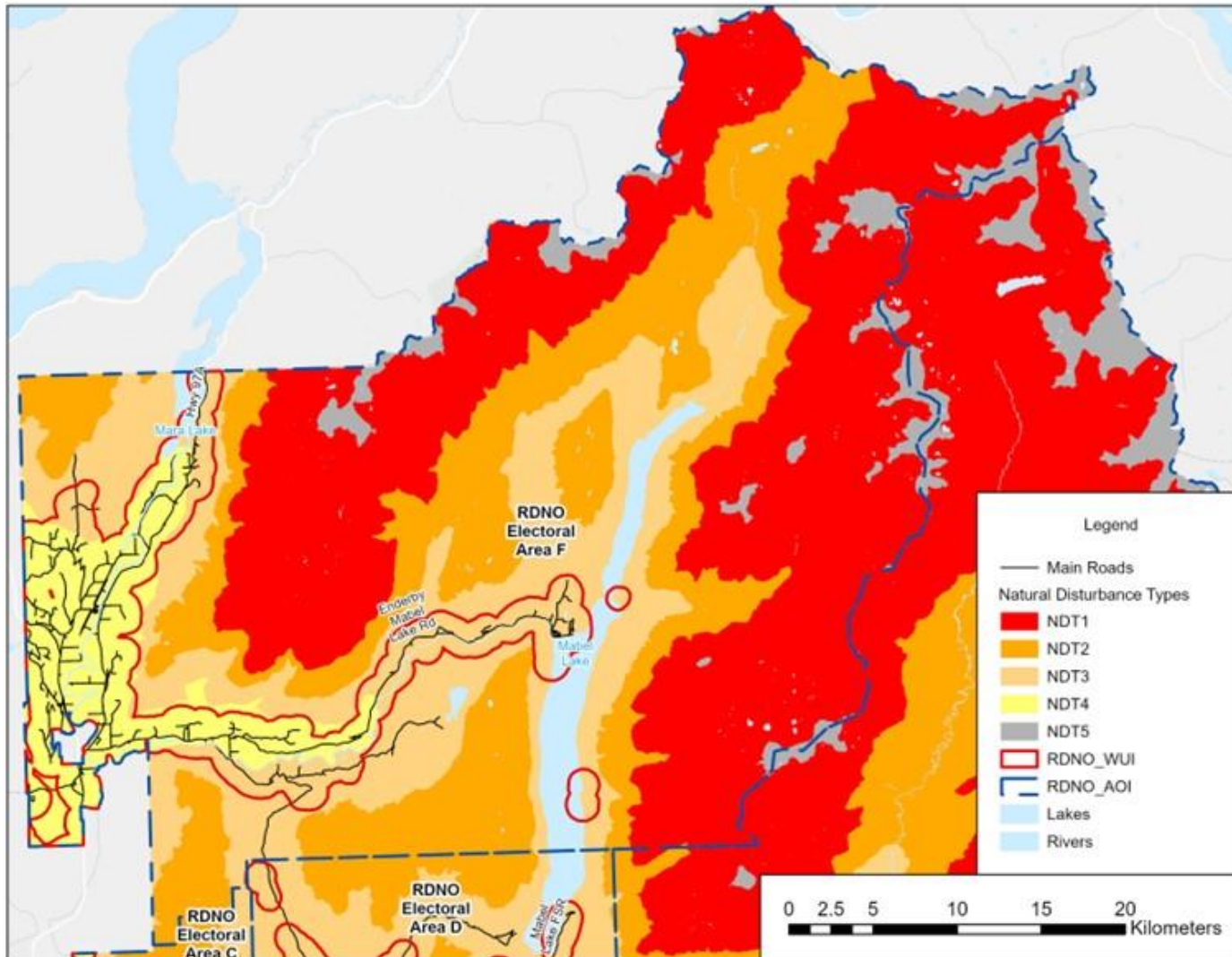


Figure 7. Natural disturbance Types (NDT) for RDNO Electoral Area F.

### 4.1.2.3 Fuel Types

For fire behaviour prediction purposes, Canadian forests and grasslands are categorized into different Fire Behaviour Prediction (FBP) System fuel types. These fuel types have different vegetation species and structure (e.g. vegetation density). Because of this, fire will behave differently in each fuel type. Table 9 outlines which fuel types are present in the Electoral Area F AOI and WUI. More detailed descriptions of these fuel types can be found on the Natural Resources Canada website.<sup>10</sup>

Fuel types are named to reflect fire behaviour in different vegetation groups (Table 9). However, since fuel types are used to describe an expected fire behaviour, they may not actually reflect the tree species that are on the ground. For example, the C2 (Boreal Spruce) fuel type does not necessarily indicate there is upland and lowland black spruce and white spruce stands around the Electoral Area F; rather, these fuel types correlate the forest fuel complex and the fire behaviour that could be expected in that fuel complex. Fuel types should be regarded as a 'best fit' rather than strictly based on tree species.

**Table 9. Canadian Fire Behaviour Prediction (FPB) System Fuel Types present within the RDNO Electoral Area F.**

Fuel Types				
Fuel Type		Description	% AOI	% WUI
C2	Boreal Spruce	A very volatile fuel type - C2 produce high intensity and fast-moving fires more easily than other fuel types. Fires can easily become crown fires.	0.1	N/A
C3	Mature Jack or Lodgepole Pine	Fastest rate of spread overall, however requires high wind speeds and low fuel moistures to reach this faster rate of spread than other fuel types.	23.6	2.1
C4	Immature Jack or Lodgepole Pine	Densely stocked immature jack and lodgepole pine stands with nearly continuous horizontal and vertical fuel layers.  A fuel type that can exhibit rapid rates of spread and extreme head fire intensity under extreme fire weather due to its stage of early development and density of coniferous stems.	<0.1	N/A
C5	Red & White Pine	Mature stands with tall, mature, closed canopies with moderately dense understory and shrub layers.  Has the highest fire weather threshold of all conifer fuel types and requires extreme fire	21.5	2.9

<sup>10</sup> [FBP Fuel Type Descriptions](#). Natural Resources Canada.



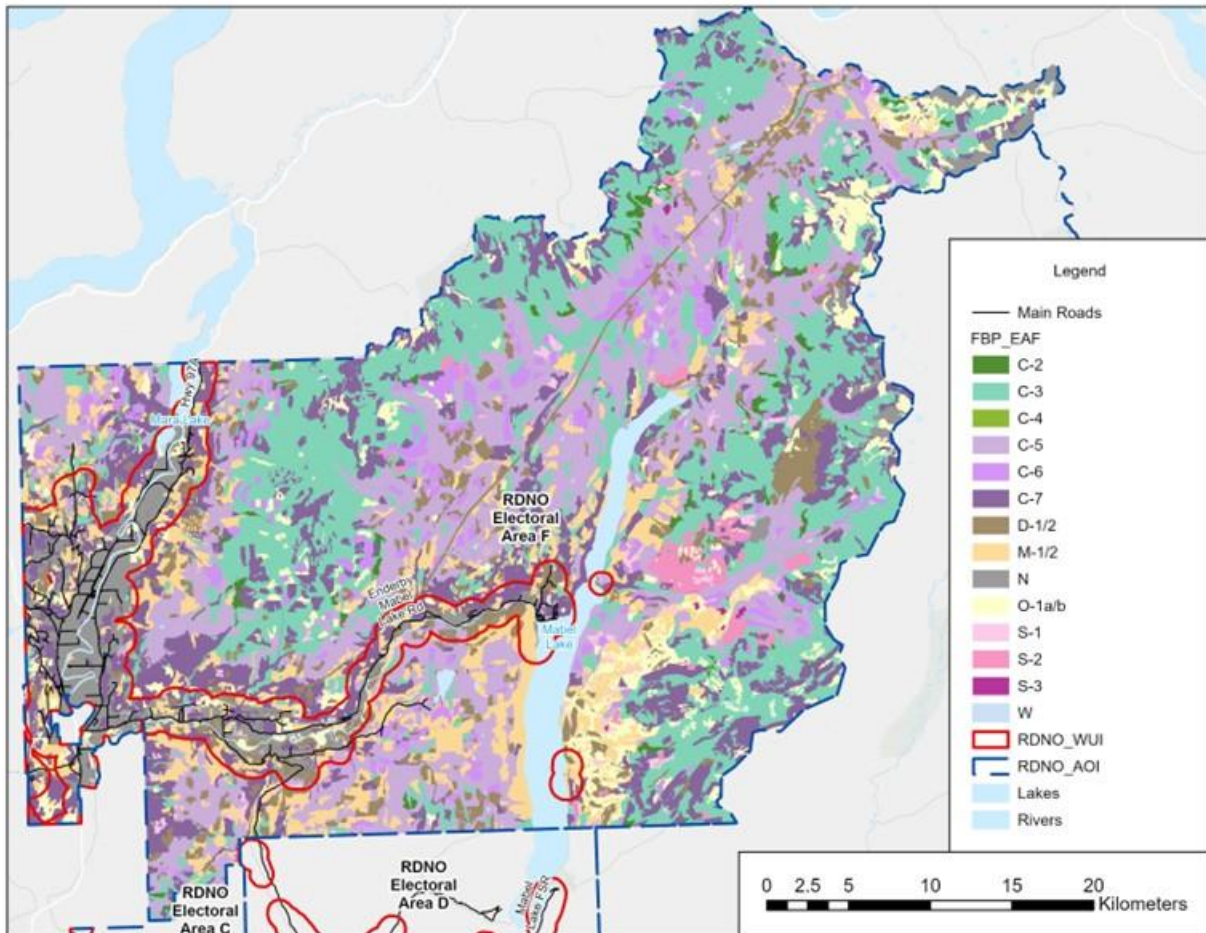
Fuel Types				
Fuel Type		Description	% AOI	% WUI
		conditions to achieve full canopy fire. Lower rate of spread than other conifer fuel types.		
C6	Conifer Plantation	All conifer plantations with closed canopy crown canopy and no understory shrub layer. Moderate fire behaviour and spread rates compared to other coniferous fuel types due to its dependency on crown base height and moisture content of moderate to heavy surface fuels.	4.1	0.2
C7	Ponderosa Pine – Douglas Fir	Lowest rate of spread and lowest fire intensity of the conifer fuel types.	16.7	24.4
D1/D2	Deciduous (D1 leafless aspen, D2 green aspen)	Lower rates of spread, lower ember production and lower fire intensity (than conifer) when trees have leaves. Often used in urban interface areas to reduce fire behaviour around values.	6.4	8.2
M1/M2	Mixedwood	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.	10.1	15.1
O1a/b	Grass	Fastest rate of spread potential.	5.7	6.4
S1/2/3	Slash (Jack and lodgepole Pine or White Spruce/Balsam)	Slash resulting from clearcut logging, slash is typically one to two seasons old. Low threshold required for high fire intensity.	2.1	0.2

\*The remaining proportions that are not accounted for by the FBP fuel types include area of water and non-fuel.

Across Electoral Area F as a whole there is a variety of different fuel types, with the C-3, C-5, and C-7 fuel types making up the majority (Figure 8).

With the presence of grasslands in Electoral Area F, it should be noted about the ingress of the grass species, Cheatgrass (*Bromus tectorum*). Cheatgrass is a highly invasive species that has been introduced and has spread throughout the BC Southern Interior. Cheatgrass can grow and reproduce

rapidly with an adaptation to frequent fire disturbances<sup>11</sup>. The species can alter fire regimes of areas to have shorter return intervals than historical intervals of the area by facilitating fire spread. Cheatgrass will drop its seeds early in the season, typically prior to peak fire season, which provides the plants with a competitive advantage post-fire. Cheatgrass creates a positive feedback loop of growth and increased fire return, in the species favour, producing an ecosystem with high frequency, easy ignition, and quick rate of spread.



**Figure 8. Canadian Fire Behaviour Prediction (FPB) System Fuel Types present within the RDNO Electoral Area F**

In the WUI, the C-7 fuel type is dominant meaning the areas should be typical of an open forested stand with Ponderosa Pine and Douglas-fir trees (Figure 9). It should be noted that 32.8% of the WUI area is covered with the classification of non-fuel. This area may be dominated by houses and residential areas, which doesn't support continuous vegetation to classify as an FBP fuel type, but contains unknown fuels throughout.

<sup>11</sup>[https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/publications/prescribed\\_fire\\_and\\_invasive\\_plants\\_manual.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/publications/prescribed_fire_and_invasive_plants_manual.pdf)

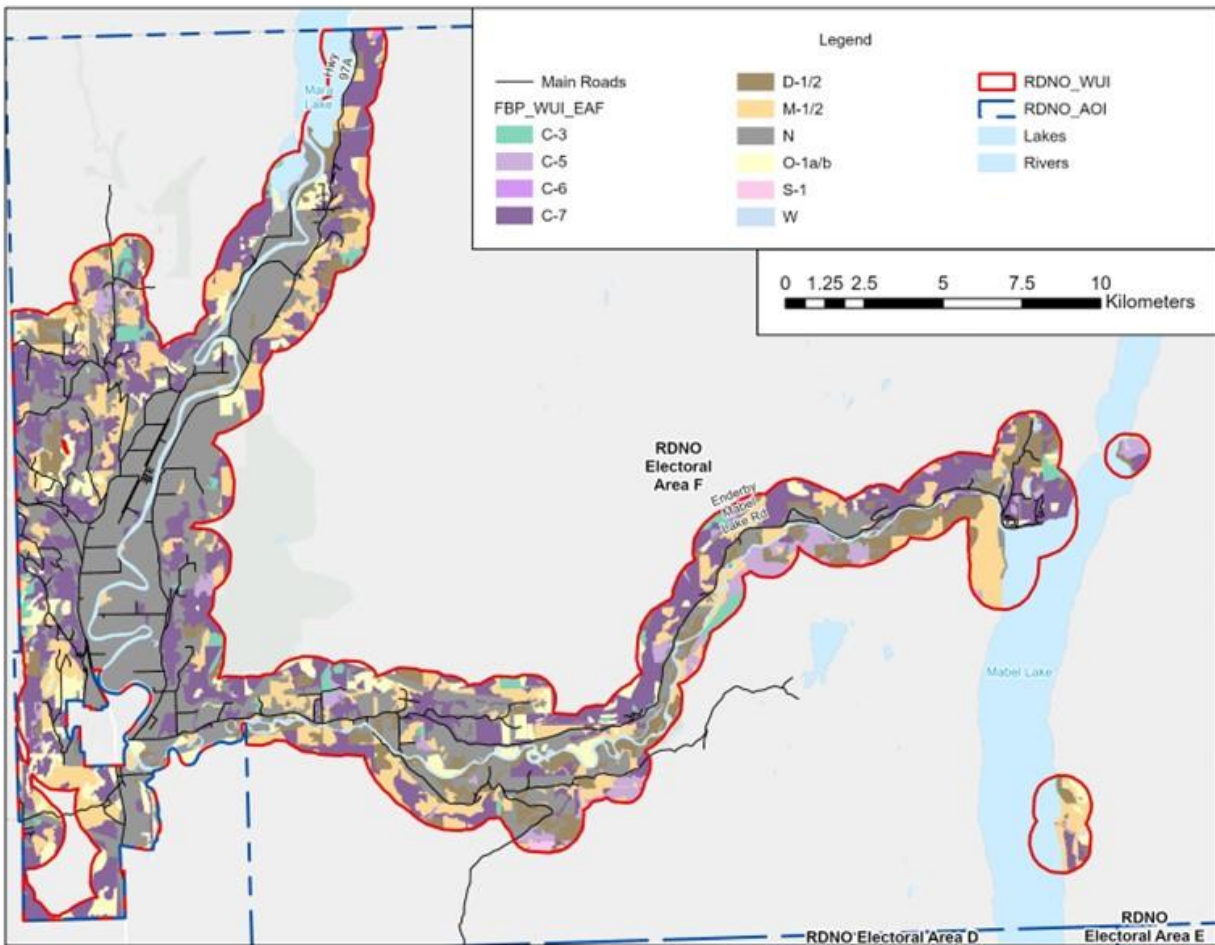


Figure 9. Canadian Fire Behaviour Prediction (FPB) System Fuel Types present within the WUI of RDNO Electoral Area F.

#### 4.1.2.4 Fuel, Ecosystems and Fire Regimes Summary

Electoral Area F is an ecologically diverse area which spans across four BEC zones (14 when including sub-variants) and all five of the Natural Disturbance Types (Table 10). The biodiversity of the BEC variants hosts 14 of the 17 FBP fuel types used in the Canadian Forest Fire Danger Rating System.



*Table 10. Summary of fuels within the RDNO Electoral Area F Area of Interest. This includes Biogeoclimatic Zone variants, Natural Disturbance Types, and FBP Fuel Types.*

BEC Zone	BEC Sub-variant	NDT Type	Area (Ha)	Percentage (%)	FBP-Fuel Types
Engelmann Spruce -- Subalpine Fir (ESSF)	wcw	NDT1	64,980.0	34.9	C-2, C-3, C-4, C-5, C-6, C-7, D-1/2, M-1/2, O-1a/b, S-1, S-2, N
	wh				
	wc				
	mh	NDT2			
	wcp	NDT5			
Interior Cedar – Hemlock (ICH)	vk	NDT1	120,438.4	64.8	C-2, C-3, C-5, C-6, C-7, D-1/2, M-1/2, O-1a/b, S-1, S-2, S-3, N
	wk				
	mw	NDT2			
	dw	NDT3			
	xm	NDT4			
Interior Douglas Fir (IDF)	xh	NDT4	21.5	<0.1	C-7, D-1/2, O-1a/b
Interior Mountain-Heather Alpine	N/A	NDT5	547.6	0.3	C-7, O-1a/b, N

**4.1.2.5 Forest Health**

Forest-health pressures already shape the composition and function of local forests, and climate change is amplifying those effects. Warmer, milder winters and longer growing seasons have fueled repeated bark-beetle outbreaks across BC, demonstrating how quickly insect populations can respond to shifting climate conditions.

Within the Okanagan Timber Sales Area, the leading threats remain bark beetles—mountain pine, Douglas-fir and spruce—followed by drought- and fire-related damage. Western spruce budworm and other defoliators are considered important but secondary. Intensive salvage harvesting during the 2006–2012 cut-uplift helped limit mountain-pine-beetle mortality to roughly 18 percent by 2020, yet scattered pine pockets in the RDNO are still at risk. Meanwhile, Douglas-fir beetle continues to spread along the Highway 1, Highway 6 and Vernon–Cherryville corridors (2,526 ha mapped in 2019) and is expected to accelerate where drought, windthrow and post-fire stress weaken stands. Spruce-beetle activity remains low, but moderate- to high-hazard stands on the Mission, Upper, and West Kettle plateaus—areas of regional significance to the RDNO—merit ongoing surveillance.



**4.1.3 Weather and Climate**

Weather attributes including temperature, relative humidity, precipitation, wind speed and wind direction are critical factors in the ignition, spread, and duration of wildfires. Weather is the most variable component of the wildfire environment, and it has a direct relationship to fuel moisture, which is a crucial determinant of combustibility. Local difference in aspect, topography and vegetation will also influence fuel-moisture at the site level. All weather forecasting for the AOI is dependent on observations from active BCWS weather stations within and surrounding Electoral Area F.

*Table 11. Weather stations used for analysis for Electoral Area F.*

Weather Station	Larch Hills West	Mabel Lake	Curwen Creek
Network	BCWS	BCWS	BCWS
Coordinates	50.690556, 119.17611	50.497222, 119.72694	50.60215, 118.42291
Elevation	904	1100	1286

Weather analysis in the following sections utilizes observed data throughout the wildfire season months of April through October from 2016-2024, unless stated otherwise.

**4.1.3.1 Temperature**

Across Electoral Area F the three weather stations—Curwen Creek, Larch Hills West, and Mabel Lake 2—exhibit a nearly identical thermal signature: mean temperatures climb rapidly from ~10 °C in April to 20–23 °C by July, remain above 20 °C through August, and decline only gradually in September. Daily maxima peak in the 35–38 °C range (most pronounced in late-June heat-dome years), while midsummer night-time minima exceed 10 °C at all sites, with the lake-moderated Mabel station showing the warmest lows. This yields diurnal spreads approaching 30 °C in early summer—conditions that intensify upslope winds, accelerate fuel pre-heating, and restrict overnight humidity recovery. Although the upland Larch Hills site records marginally cooler averages than the lower Curwen and Mabel valleys, the spatial differences are too small to offset the broader pattern: a sustained, three-month period of high mean temperatures, hot extremes, and warm nights that collectively promote rapid fuel curing, high ignition probability, and vigorous fire spread throughout Mara Lake, Enderby, and the lower Shuswap River corridor until cooler, longer autumn nights impose meaningful relief.



Figure 10 below indicates July and August as the highest temperatures on average for all weather stations within and surrounding Electoral Area F. However, June has the highest variability, including the highest recorded temperature.

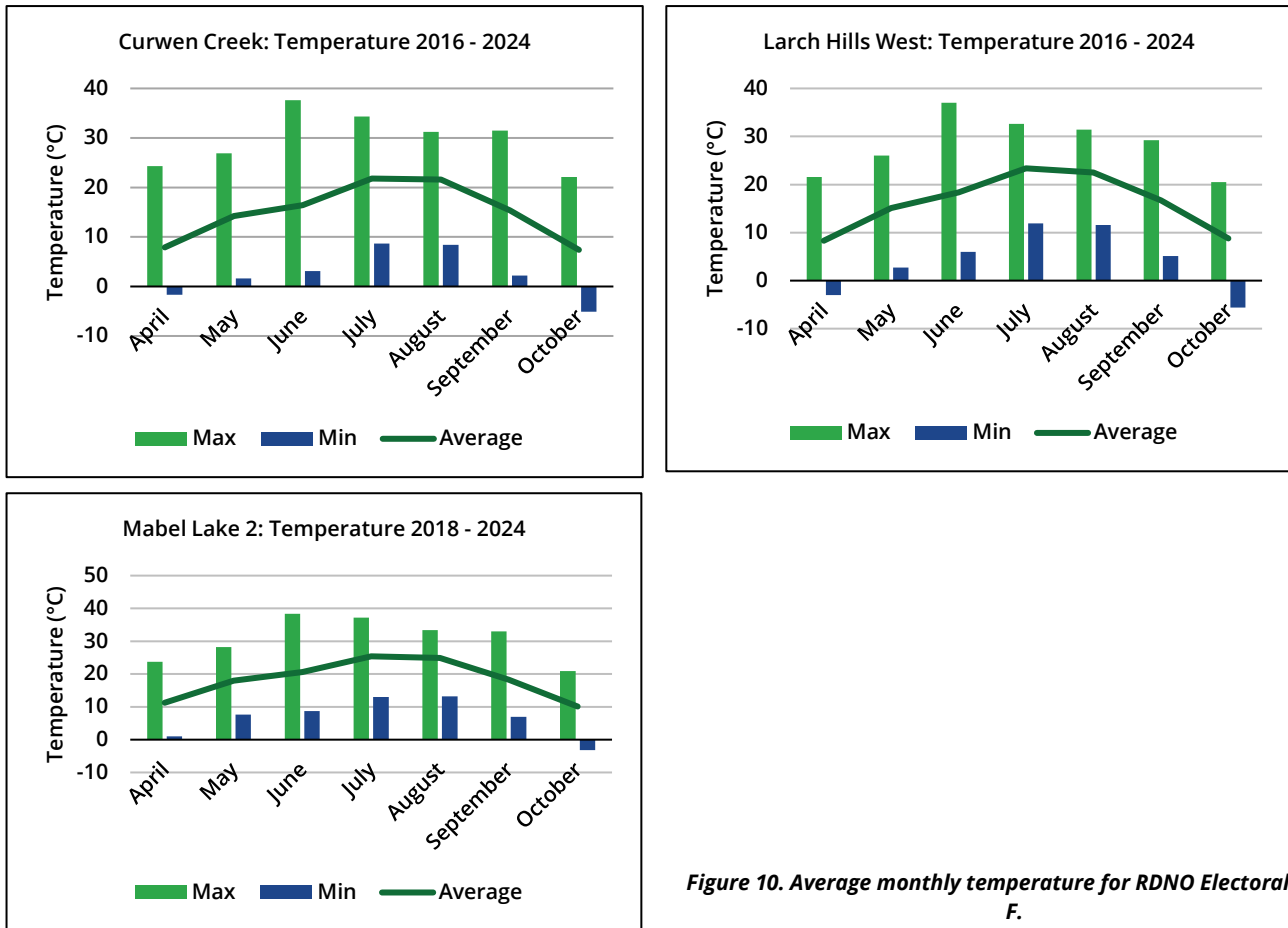
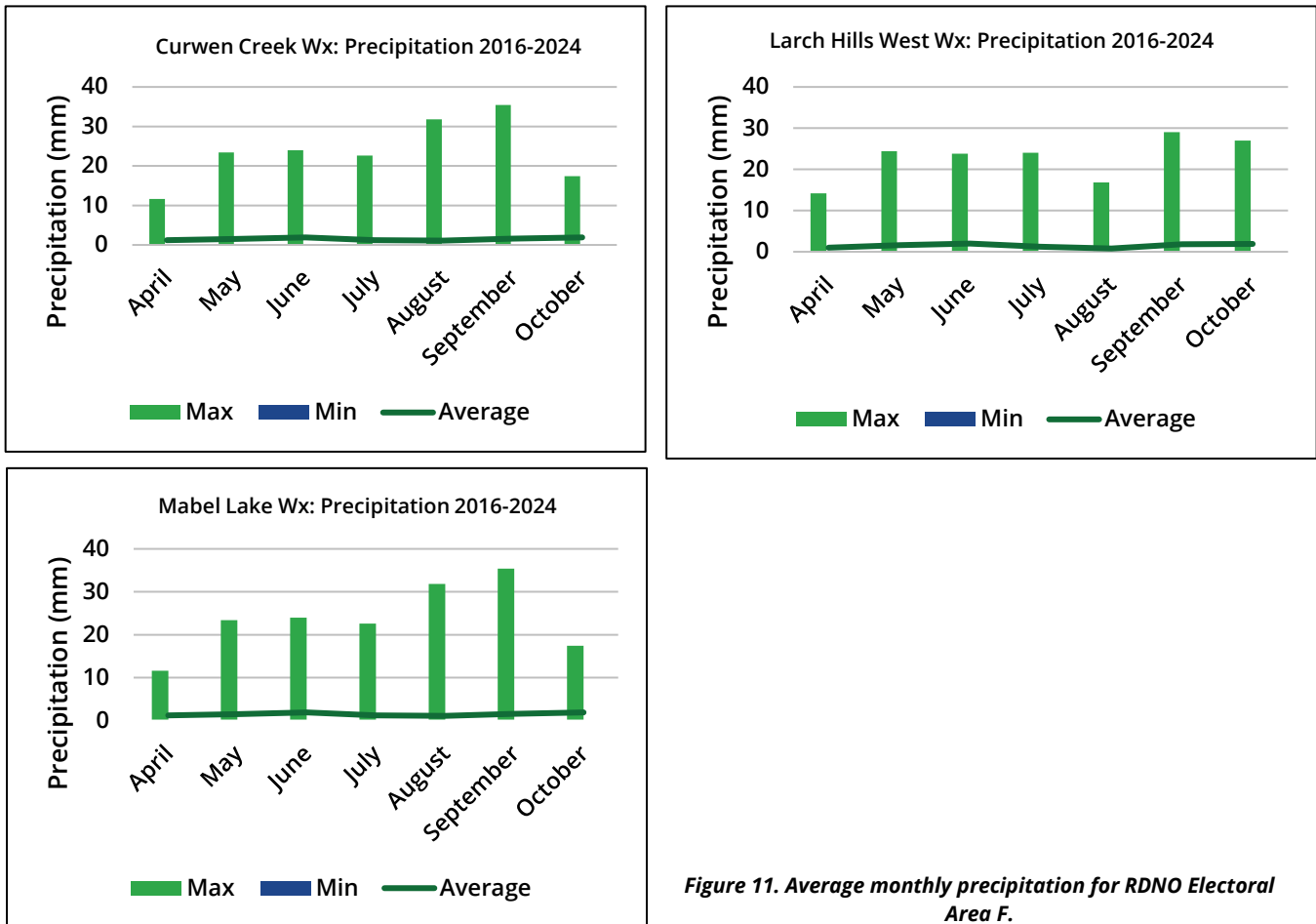


Figure 10. Average monthly temperature for RDNO Electoral Area F.

#### 4.1.3.2 Precipitation

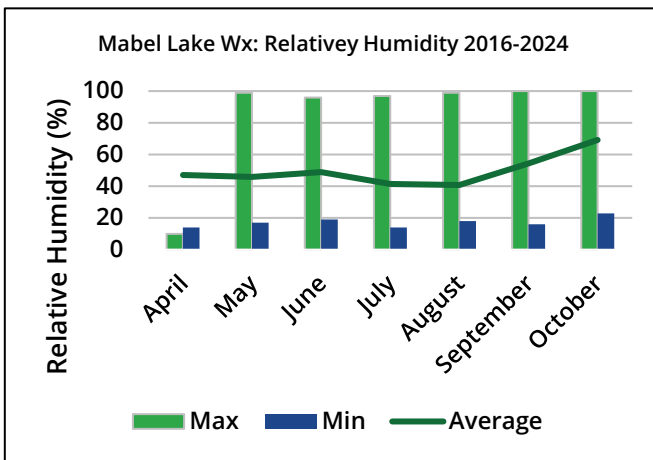
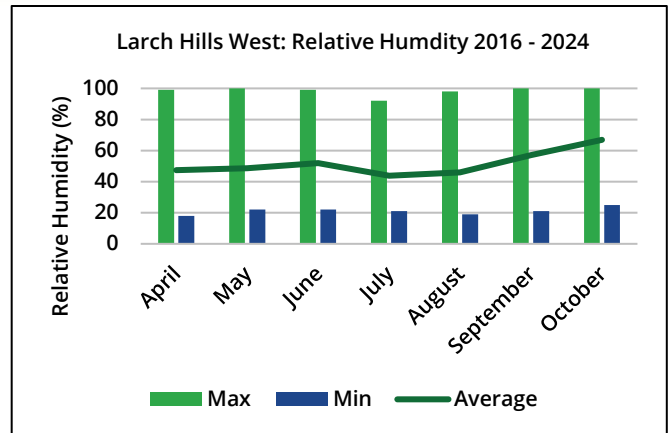
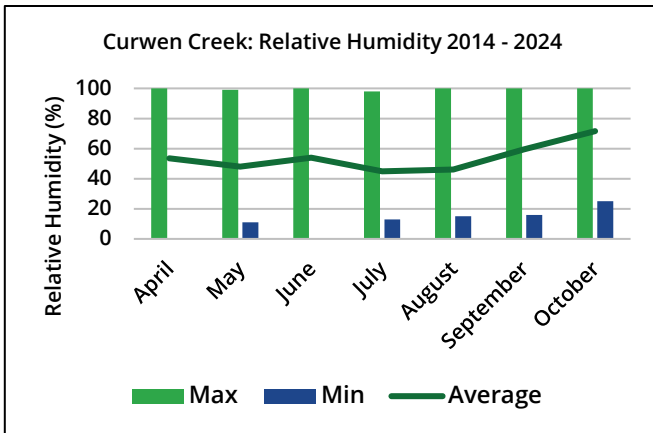
All three Electoral Area F gauges confirm an exceptionally dry warm-season climate (Figure 11). Mean daily precipitation stays below 2 mm from April through October, with minima effectively at 0 mm, indicating long rain-free spells. Moisture arrives almost exclusively in isolated convective bursts: single-event maxima climb from roughly 12 mm in April to >30 mm in August–September before easing in October. Because these short-lived downpours provide no lasting soil recharge and often coincide with lightning, they accelerate fuel curing by delivering heat and wind without sustained wetting. The resulting pattern—protracted baseline dryness punctuated by sporadic, late-summer storms—maintains critically low fuel-moisture levels precisely when temperatures and relative-humidity minima are most severe, thereby sustaining high ignition probability and vigorous fire behaviour across the Mara Lake-Enderby corridor and lower Shuswap River until continuous autumn rains set in.



**Figure 11. Average monthly precipitation for RDNO Electoral Area F.**

### 4.1.3.3 Relative Humidity

Across Electoral Area F, the Curwen Creek, Larch Hills West, and Mabel Lake stations display a consistent humidity pattern (Figure 12): average afternoon relative humidity begins the season near the mid-40 % range in April–May, dips to ~40 % at the July–August peak, and rebounds sharply to 60–70 % by October. While nightly maxima reliably reach near-saturation (~95–100 %), minimum daytime readings hover in the 12–20 % band throughout the warm season, confirming frequent periods of critically dry surface air. The slight spatial differences—marginally higher means at the lake-influenced Mabel site and marginally lower minima at the more exposed Curwen Creek valley floor—do little to offset the broader trend of pronounced diurnal swings of 70–80 percentage points. This combination of very low hourly minima, midsummer suppression of the mean, and only brief nocturnal recovery accelerates fine-fuel desiccation and sustains high ignition potential across the Mara Lake–Enderby corridor and the lower Shuswap River until the sustained moist air of autumn curtails fire behaviour.



**Figure 12. Average monthly relative humidity for RDNO Electoral Area F.**

**4.1.3.4 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 considering high wind speeds in any direction, not just the predominant wind direction that characterizes an area. While historical data can aid in prioritizing treatment locations, communities must be prepared for wind-driven fires from any direction.

For Electoral Area F, the prevailing pattern is valley-parallel flow. Through summer, winds most often align north-south along the river/lake corridor, with the highest fire-spread potential in mid-summer. Upland exposures nearby add some south-westerly influence on ridges and open benches, but day-to-day behaviour in the populated valley is largely guided by the valley axis.

There is a reliable daily (diurnal) rhythm. Mornings and evenings tend to bring southerly breezes along the corridor; by late morning into afternoon, the flow commonly flips to northerly. Local topography can layer on short-lived east-west toggles near passes and side-valleys, and some higher-elevation sites show southerly bursts at the daily scale even when the hourly pattern swings E-W.



#### 4.1.3.5 Initial Spread Index

The Initial Spread Index (ISI) is one of the six components of the Canadian Fire Weather Index (FWI) system. It combines the Fine Fuel Moisture Code (FFMC)—a measure of how quickly fine surface fuels will ignite—with the 10-metre open-wind speed observed at the weather station. The resulting number expresses the expected rate of forward fire spread at the ignition stage (higher values = faster spread), independent of fuel load or slope.

The BCWS weather station logs ISI hourly, generating detailed roses that reveal how wind direction and spread potential shift through the day; it also aggregates the 1300 PST readings into monthly averages, producing a companion set of roses that highlight the prevailing wind-ISI combinations for each month of the fire season (Figure 13, Figure 14). BCWS constructed the ISI Roses from the weather station installation date to 2015 or 2016<sup>12</sup>. Any weather station installed after 2015, including Larch Hills, does not have an ISI Rose.

An ISI rose plots these values on a compass diagram: each “petal” points in the direction the wind was blowing from, and its radius (or colour intensity) represents the magnitude of the ISI recorded under that wind. Petal length shows how often winds arrived from each direction, while the colour—shifting from dark blue through pale yellow to deep red—depicts the corresponding ISI; thus, long red-tipped petals mark directions that are both frequent and prone to rapid fire spread, whereas short dark-blue petals indicate infrequent winds with low spread potential. By scanning which quadrants dominate a monthly or hourly rose, practitioners can quickly see which directions—and times of day—pose the greatest initial-spread risk and plan fuel treatments, detection patrols, or resource staging accordingly.

For Electoral Area F, the Mabel Lake and Curwen Creek weather stations are used to develop ISI rose plots. Mabel Lake 2 is at the valley bottom serving the Mabel Lake/Lower Shuswap corridor, located about 23 km south of the Kingfisher community; elevation 488 m. Curwen Creek is a backcountry station east of Kingfisher, about 21.5 km from the community along the upper watershed; elevation 1,286 m.

**Mabel Lake 2.** Winds are valley-channeled and reverse with time of day. Fire-spread potential peaks in July–August, is moderate in spring/September, and is lowest in October (with more calm hours). In summer, mornings often flow from the south/ESE, afternoons flip to northerly/north-northwest, and evenings return to southerly/east-southeast. This means head-fire direction can switch along the valley axis through the day—northward in the afternoon, southward mornings/evenings.

**Curwen Creek** — The daily ISI roses for July–August show a mixed wind regime, with the strongest and most frequent flow from the south (S/south-southeast) and regular east–west components. Fire-spread potential is highest in mid-summer and lower in spring/fall. The hourly roses add an important detail: winds toggle east–west within the day—westerly overnight and late day, easterly more common mid-morning, often leaning back westerly in the afternoon. Taken together, expect southerly pushes at the daily scale, overlaid by hour-to-hour shifts along the E–W axis; planning and tactics should allow for quick changes in spread direction.

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<sup>12</sup> <https://www.for.gov.bc.ca/ftp/HPR/external!/publish/Website/ISI%20Roses/>

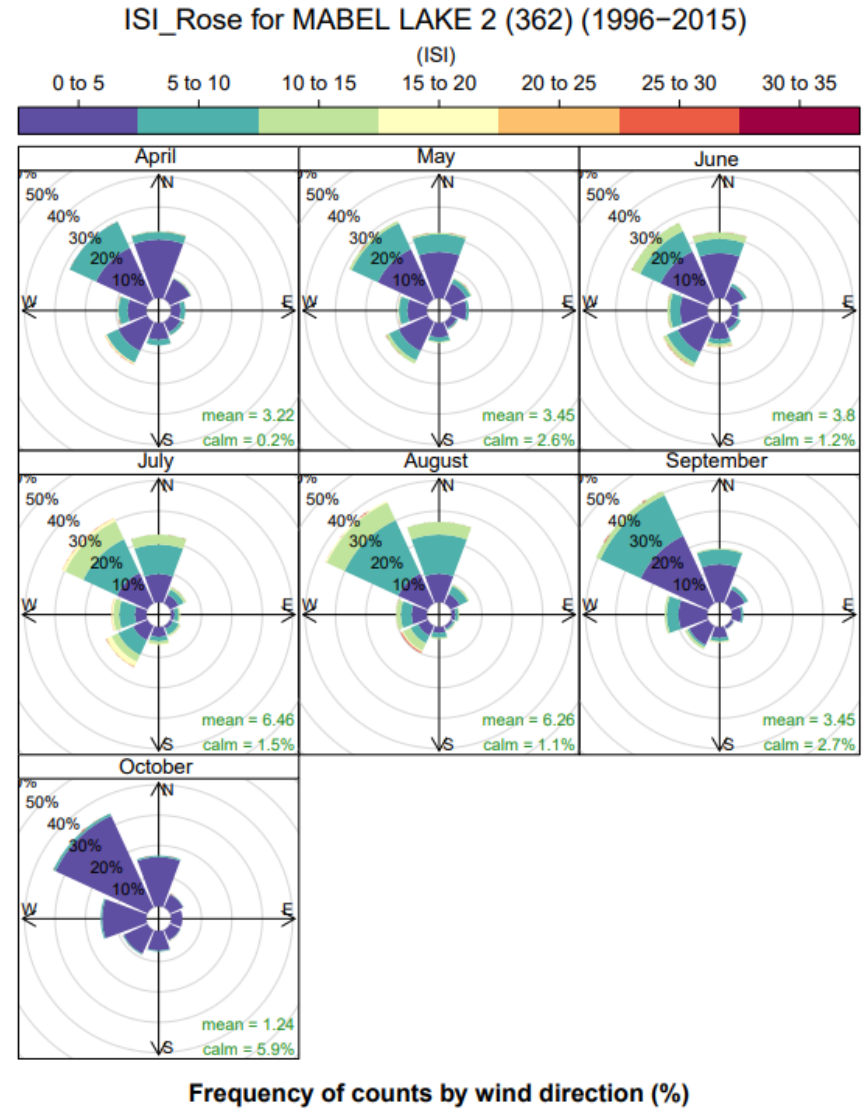
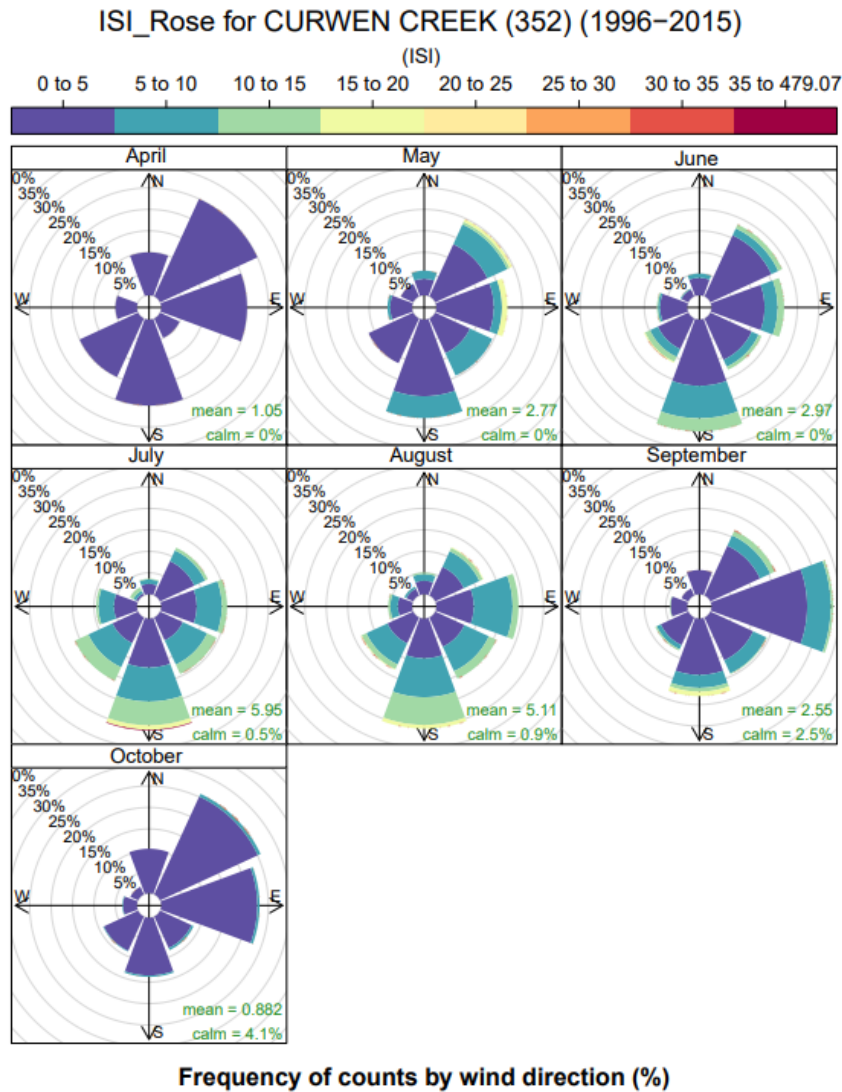
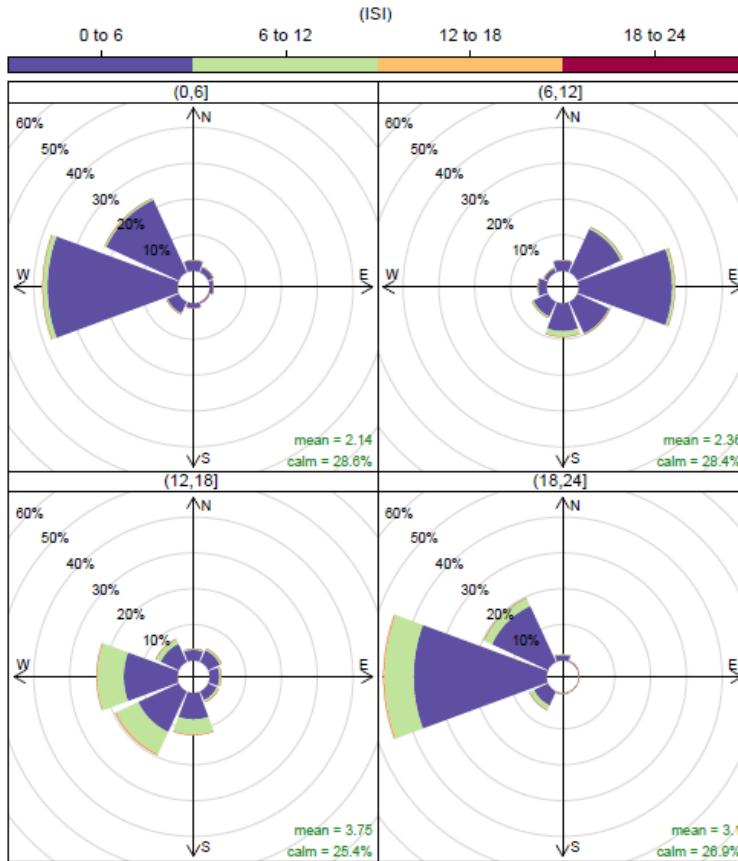


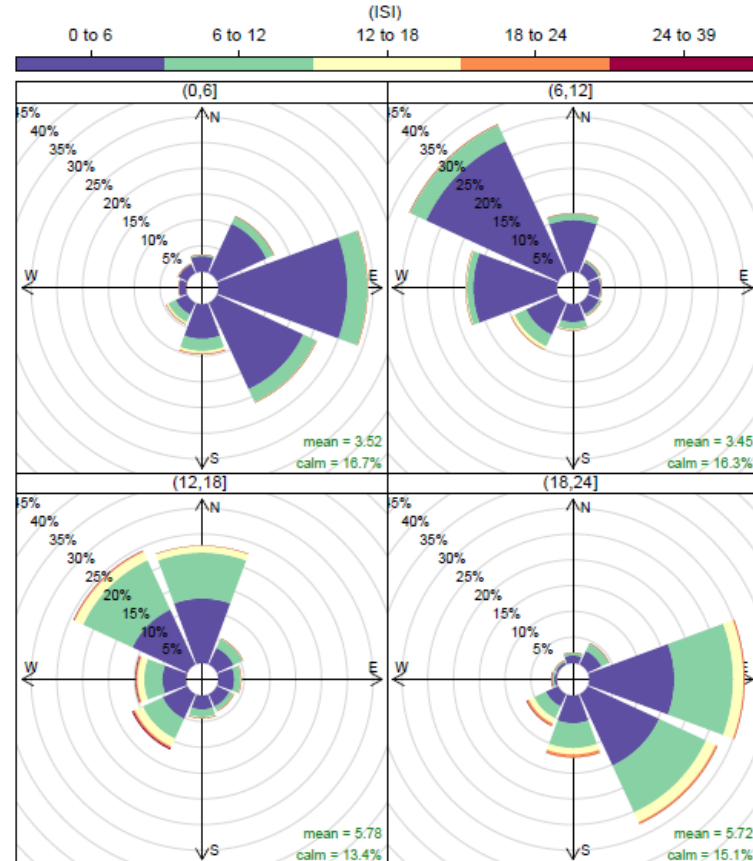
Figure 13. Monthly average ISI and wind roses for RDNO Electoral Area F.

Hourly (PST) ISI\_Rose for CURWEN CREEK (352) August (1998–2016)



Frequency of counts by wind direction (%)

Hourly (PST) ISI\_Rose for MABEL LAKE 2 (362) July (1997–2016)

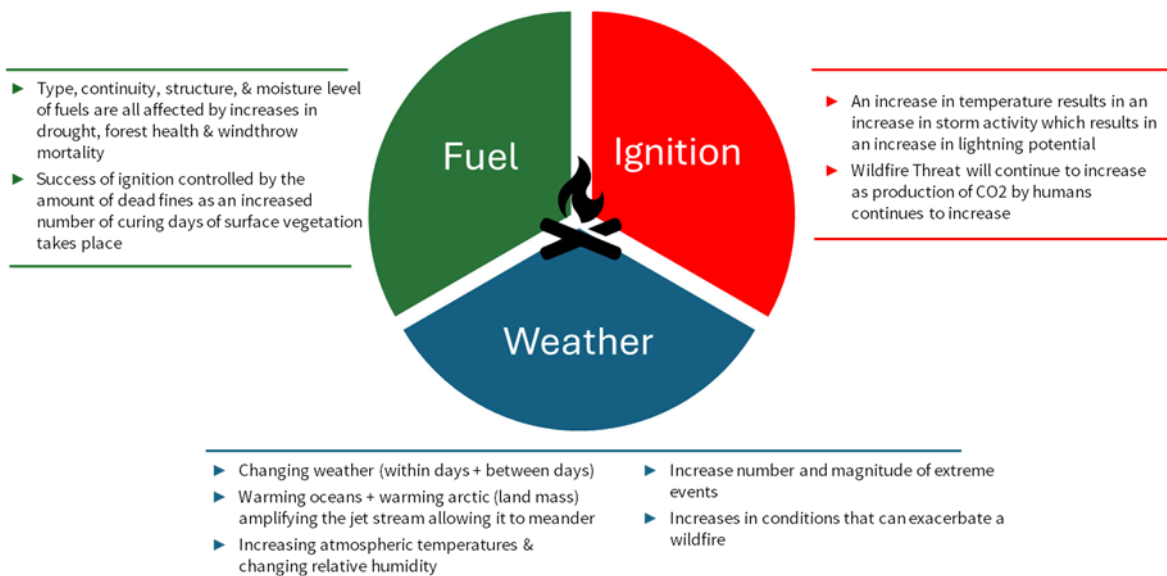


Frequency of counts by wind direction (%)

Figure 14. Hourly ISI and wind roses for RDNO Electoral Area F. Each weather station is represented by the month of the highest ISI.

**4.1.3.6 Climate Change**

The province of BC has witnessed its most severe wildfire seasons of the last half-century, occurring in 2017, 2018, 2021, and 2023, all characterized by extreme weather conditions. The recent surge in fire activity is not entirely unexpected, given recent weather extremes. However, what is surprising is the early emergence of increased wildfire activity around 2000—decades earlier than anticipated from climate models—and the magnitude of fire-season severity. For instance, three of the past seven years saw more than 1 million hectares burned, or more than 1% of the land area, compared to only three wildfire seasons from 1919 to 2016, exceeding 0.5 million hectares. Additionally, the average length of the wildfire season, as inferred from weather records (measured by the number of frost-free days) and the onset of fire activity (defined as the date when 2% of the year’s total area burned was reached), has increased by 26.7 and 27.1 days, respectively, since the early 20th century<sup>13</sup>. The observed effects of climate change on fuel, ignition, weather and their complex interactions and relationship to wildfire are summarized below in Figure 15.



**Figure 15. Effects of climate change graphic**

The regional climate service center for the Pacific and Yukon Regions is called the Pacific Climate Impacts Consortium (PCIC). This non-profit corporation conducts quantitative studies on the impacts of climate change and climate variability<sup>14</sup>. Findings from these studies are incorporated into practical tools for end-user application. For example, the PCIC website offers a map-based data portal for downloading information, analysis tools for the various regions in BC (Plan2Adapt, Climate Explorer, and seasonal anomaly maps), downloadable publications, and software for climate data interpretation.

<sup>13</sup> 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.

<sup>14</sup> [Pacific Climate Impacts Consortium](#). 2024.



Climate projections from PCIC for the 2030s (2021-2050) (Table 12) show the North Okanagan is warming by a median +1.7°C (with most model results falling between +1.4°C and +2.4°C). Annual precipitation is expected to stay roughly unchanged overall, yet its seasonal distribution shifts: summers become markedly drier (-12% on average, with possible declines of -22%) while winters grow wetter (+13%, up to +19%).

For wildfire risk, this pattern is a “double hit.” Higher temperatures accelerate snowmelt, lengthen the fire season, and raise evaporative demand, leaving fine and medium fuels drier for longer. Simultaneously, the projected summer precipitation deficit intensifies drought stress, making ignition more likely and sustaining higher initial-spread rates and flame lengths once fires start. The wetter winters may spur additional grass and shrub growth, adding fine fuels that dry out quickly each spring, further elevating the probability of fast-moving interface fires. Stressed forests are also more vulnerable to insects and disease, increasing tree mortality and ladder-fuel continuity, which can favour crown fire development. Altogether, the ensemble of warmer conditions, drier summers, and episodic fuel buildups points to more frequent and severe wildfire events, challenging suppression efforts and underscoring the need for proactive vegetation management, FireSmart treatments, and water-supply resilience across the North Okanagan landscape.

Strong trends in temperature and precipitation have been observed in BC over the past century. Annual area burned correlates significantly to the climatic moisture deficit; 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<sup>15</sup>.

**Table 12. Summary of projected changes in median temperature and precipitation in the North Okanagan from the historical baseline (1981 – 2010) to the 2030s (2021 – 2050).**

<b>Climate Variable</b>	<b>Season</b>	<b>Ensemble Median*</b>	<b>Range^ (10th to 90th percentile)</b>
<b>Temperature (°C)</b>	Annual	+1.7 °C	+1.4 °C to +2.4 °C
<b>Precipitation (%)</b>	Annual	+0%	-3% to +2%
	Summer	-12%	-22% to -2%
	Winter	+13%	+10% to +19%

**\*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.**

<sup>15</sup> Parisien, M. A., Barber, Q. E., Bourbonnais, M. L., Daniels, L. D., Flannigan, M. D., Gray, R. W., ... & Whitman, E. (2023). Abrupt, climate-induced increase in wildfires in British Columbia since the mid-2000s. *Communications Earth & Environment*, 4(1), 309.



## 4.2 WILDFIRE HISTORY

A historical wildfire analysis was conducted for the Electoral Area F. Using data from the *BC Wildfire Fire Perimeters - Historical database*, and the *BC Wildfire Fire Ignition Locations - Historical database*. Fire perimeter data is recorded from 1917–2024 but does not include location of all fires recorded on the landscape. Ignition location data is recorded from 1950–2024, and includes all BCWS recorded wildfire history in these date ranges, but does not include fire size or perimeter information. *BC Wildfire Fire Perimeters - Historical database* (1917–2024) is referenced when referring to area burnt. *BC Wildfire Fire Ignition Locations - Historical database* (1950–2024) is referenced when referring to number of fires. Table 13 examines the area burned and Figure 16 examines total ignition points with Electoral Area F.<sup>16</sup>

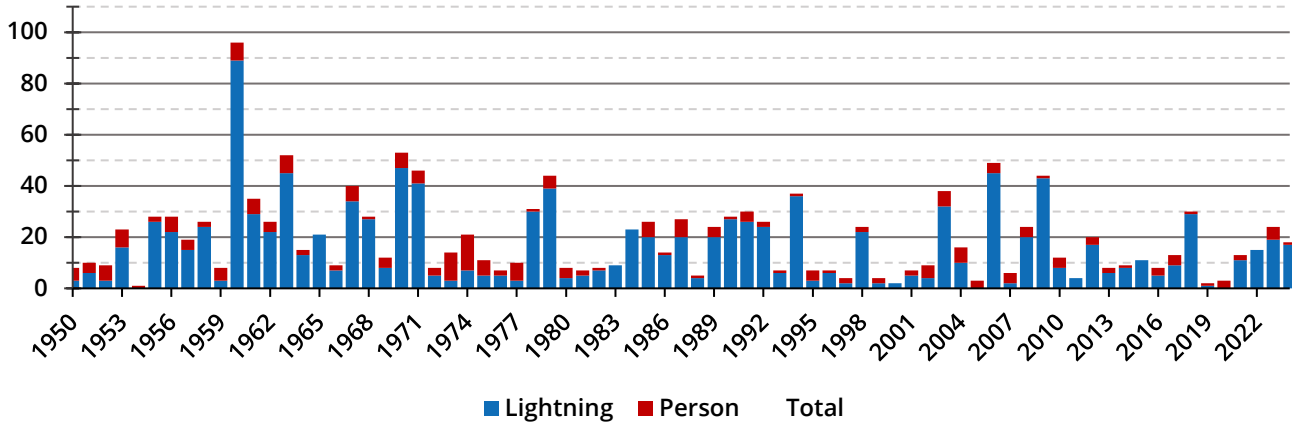
**Table 13. Area burnt summarized by ignition source for the Electoral Area F AOI and WUI from 1917 to 2024.**

	Lightning	Person	All
<b>AOI</b>			
Total Area Burnt (ha)	21,118	5,274	26,391
Percentage of Wildfires (%)	80	20	100
<b>WUI</b>			
Total Area Burnt (ha)	846	340	1,186
Percentage of Wildfires (%)	71	29	100

Electoral Area F’s wildfire regime is *punctuated*: long sequences of low burn area years are interrupted by occasional lightning escapes that account for the bulk of hectares burned. Lightning ignitions make up 80% of starts and produce 21,118 ha (80%) of area burned; person-caused fires (17% of starts; 5,274 ha, 20%) are a persistent workload but seldom drive landscape-scale loss. The remaining 3% of fire ignitions are classified as unknown fire cause. The 1950–1999 period saw only 6,103 ha burned, indicating infrequent large lightning runs under cooler/wetter conditions or effective suppression and

**Figure 16. Wildfire ignition count summarized by ignition cause for RDNO Electoral Area F AOI from 1950 – 2024.**

<sup>16</sup> Historical wildfire data sets are available from [BC Data Catalogue](#)



allowing continuous, fuel-rich stands—especially along the settled Lumby–Enderby–Mara corridor—to develop during protracted disturbance lulls.

Since 2000, burned area has escalated to 10,425 ha (17% person-caused), driven by clusters of lightning fires in the sparsely populated eastern highlands (Kingfisher–Mabel Lake backcountry) where recurring natural fire has maintained a more heterogeneous, mixed-age mosaic that moderates contiguous crown-fire potential. This east–west contrast—healthy patch dynamics in the remote east versus fuel accumulation and limited recent fire experience in the populated west—frames current risk. Two 2021 incidents illustrate the bifurcation: the 83,000-ha White Rock Lake wildfire, though >40 km west, imposed smoke, ash fall, contingency planning and intermittent transportation disruption. Meanwhile the locally ignited (lightning) Bunting Road fire on the Mabel Lake FSR triggered successive Evacuation Orders and Alerts, highlighting access vulnerability for recreation and seasonal properties along single-route corridors. Collectively, the record shows that while eastern slopes retain ecological resilience from periodic fire, the western interface remains comparatively untested and fuel-rich. Future large-scale events, originating locally or migrating from adjacent districts, could rapidly reproduce 2021-type evacuation, transportation and air-quality. A map of fire perimeters and ignition locations is displayed below (Figure 17).

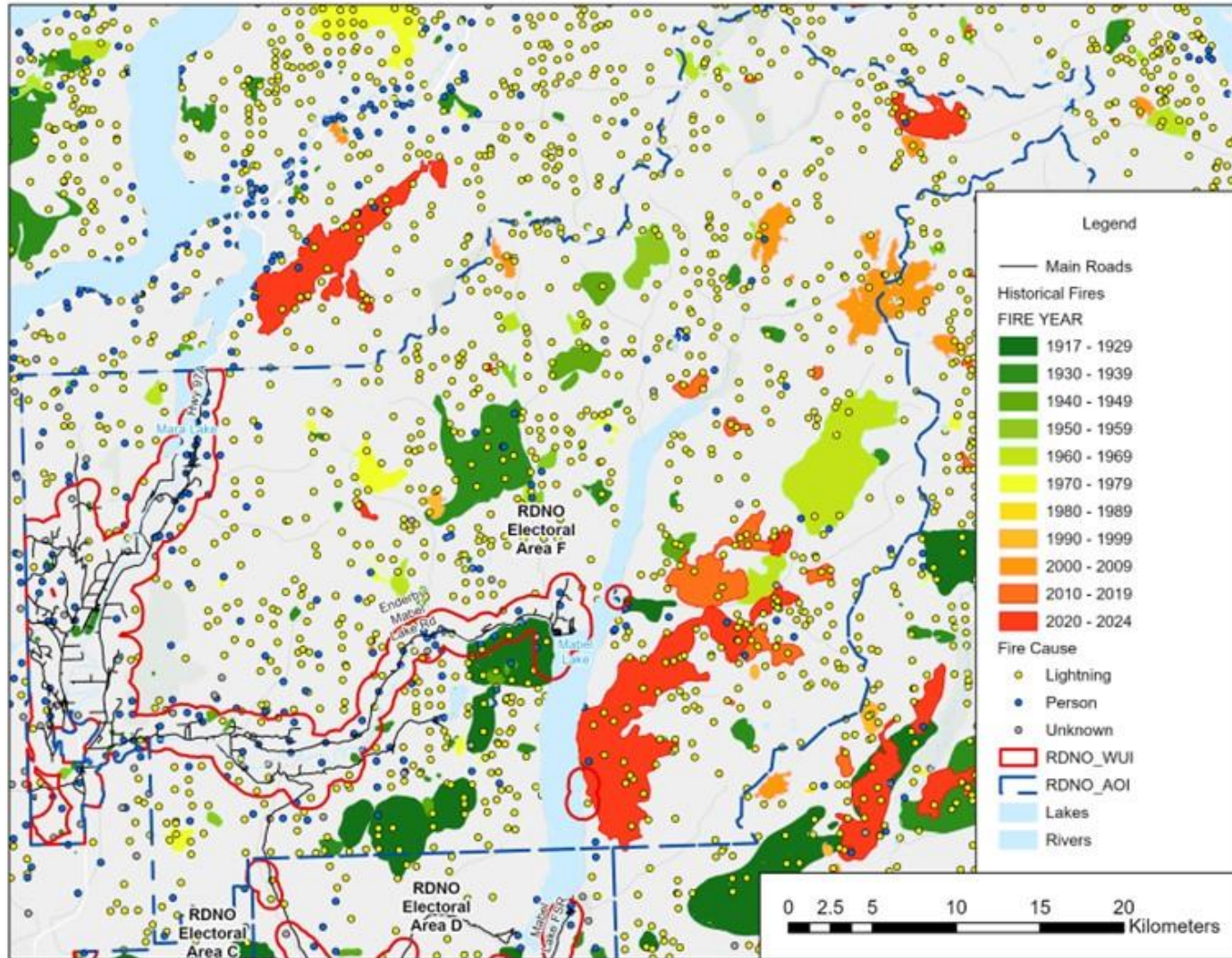


Figure 17. Wildfire history map for RDNO Electoral Area F.



### 4.3 CANADIAN FOREST FIRE DANGER RATING SYSTEM (CFFDRS)

A **Fire Danger Rating sign** informs the public about the likelihood of wildfire ignition and spread in a specific area. These signs are commonly displayed on fire boards outside local fire departments or at the Ministry of Forests office. The rating is determined using three key elements of the **Canadian Forest Fire Weather Index (FWI) System**, which evaluates fire potential and categorizes the danger level as **Low, Moderate, High, Very High** or **Extreme** (Table 14).<sup>17</sup>

For further details about how fire danger ratings are calculated, please refer to the [FireSmart BC website](#).

Table 14. The five fire danger classes and general fire descriptions<sup>18</sup>

Fire Danger	Description
Low	Fires likely to be self-extinguishing and new ignitions unlikely. Any existing fires limited to smouldering in deep, drier layers.
Moderate	Creeping or gentle surface fires. Fires easily contained by ground crews with pumps and hand tools.
High	Moderate to vigorous surface fire with intermittent crown involvement. Challenging for ground crews to handle; heavy equipment (bulldozers, tanker trucks, aircraft) often required to contain fire.
Very High	High-intensity fire with partial to full crown involvement. Head fire conditions beyond the ability of ground crews; air attack with retardant required to effectively attack fire's head.
Extreme	Fast-spreading, high-intensity crown fire. Very difficult to control. Suppression actions limited to flanks, with only indirect actions possible against the fire's head.

Figure 18 presents a summary of the Fire Danger analysis, showing the frequency of High and Extreme Fire Danger days at the Curwen Creek and Mabel Lake BCWS weather stations. Fire Danger days are defined according to the Wildfire Act – Schedule 2. As outlined in Schedule 2, High Fire Danger days are defined for Danger Index Region 1 and require a Build-Up Index greater than 17 and a Fire Weather Index (FWI) greater than 8. The Fire Danger sign is utilized by many districts and municipalities to alert the public about the potential start and spread of a wildfire in each area.

<sup>17</sup> What we talk about when we talk about the fire danger rating system. FireSmart BC

<sup>18</sup> [Fire Danger](#). BC Wildfire Service.

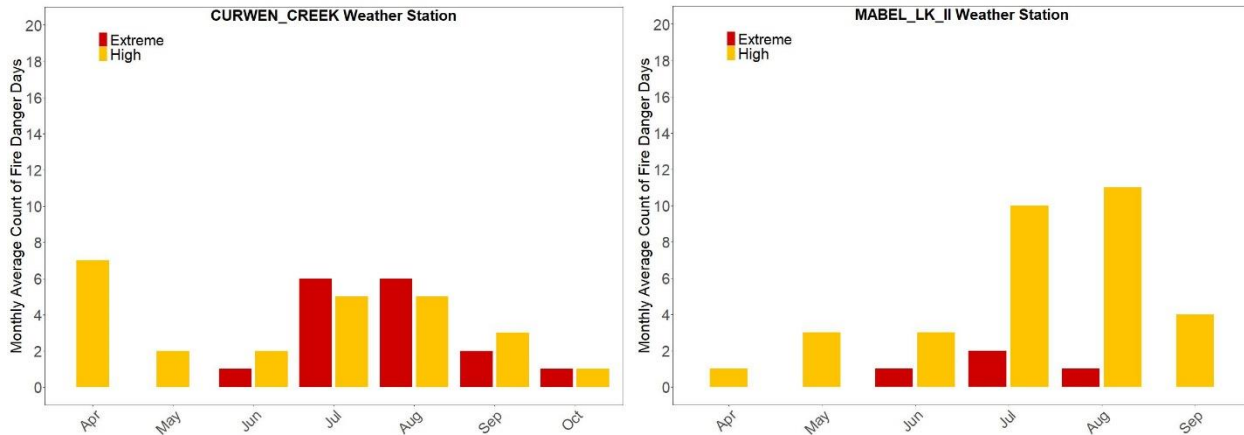


Figure 18. Monthly average fire danger days for Curwen Creek, and Mabel Lake Weather Stations (2016 – 2024).

#### 4.4 PROVINCIAL STRATEGIC THREAT ANALYSIS (PSTA)

The BC Wildfire Service developed the Provincial Strategic Threat Analysis (PSTA) and Risk Class framework as provincial spatial datasets to evaluate and forecast potential wildfire threats. Leveraging provincial fuel type mapping, historical fire occurrence data, topography, and historical weather station data, the PSTA generates a wildfire threat score. Outputs from the PSTA include information and maps delineating fuel types, historical fire density, the potential for embers to land in an area (spotting impact), head fire intensity, and wildfire threat. The threat ranking is assigned to 1 of 10 classes, with 1 being low, 10 being extreme, and 7 being the threshold of the potential for catastrophic losses. The 10 classes can also be ranked into low, moderate, high, and extreme. Water and no data are separate classes in which wildfire threat is not ranked. The ‘no data’ class represents all private land, meaning there is no way to identify the risk coming from each private parcel of land. The PSTA is a simple way of classifying the complex nature of wildfire threat which should be used to guide individuals who are preparing for what may happen on the landscape. Further details regarding the derivation of the PSTA dataset are available through the BC Wildfire Service.<sup>19</sup>

Table 15 below outlines the area that falls within each fire threat class for both the AOI and the WUI. Throughout the AOI, a majority of the area either falls into the high or extreme threat categories. Comparing the AOI to the WUI will see the threat drop to a mix of moderate and high. Private land contributes over 60% of the WUI in Electoral Area F, limiting the amount of area where wildfire threat can be analyzed.

<sup>19</sup> 2021 Update: Provincial Strategic Threat Analysis (PSTA). Accessed March 2024.



*Table 15. PSTA Fire Threat class and associated areas for Electoral F AOI and WUI.*

FIRE THREAT CLASS	AOI		WUI	
	AREA (HA)	PERCENTAGE (%)	AREA (HA)	PERCENTAGE (%)
No Data (Private Land)	16879.8	9	15,404.0	64
No Data (Private Managed Forest Land)	550.2	0	168.5	1
<b>Water</b>	6863.4	4	1,906.4	8
<b>Low</b>	3662.7	2	1,107.7	5
<b>Moderate</b>	31783.3	17	2,744.9	11
<b>High</b>	68340.5	37	2,337.1	10
<b>Extreme</b>	57907.3	31	496.9	2
<b>Total</b>	185987.2	100	24,165.6	100

The PSTA fire threat scores for Electoral Area F are mapped below in Figure 19.

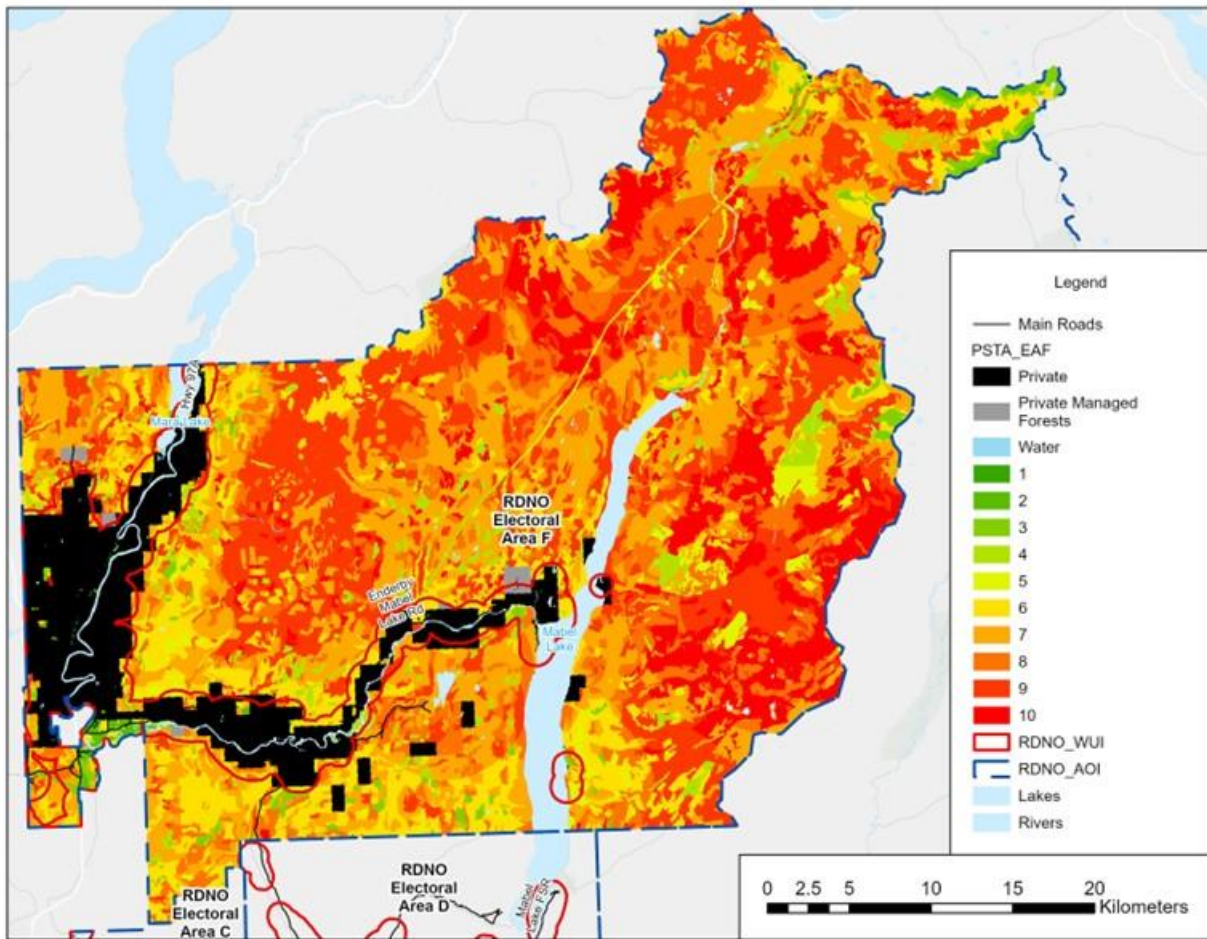


Figure 19. Map of the Provincial Strategic Threat Assessment for Electoral Area F.

## 4.5 HAZARD, RISK, AND VULNERABILITY ASSESSMENT

A Hazard Risk and Vulnerability Assessment (HRVA) is a systematic process used to identify potential hazards, assess their associated risks, and analyze the vulnerabilities of a community to those hazards. It helps communities understand the potential impacts of hazards and prioritize actions to mitigate risks and enhance resilience. HRVAs are developed by the local municipal authority. The RDNO does not yet have a completed HRVA, but regional staff are actively working on its development.



## 4.6 LOCAL WILDFIRE THREAT ASSESSMENT

Part of the process of developing this CWRP involves on-the-ground verification and assessment of local vegetation types and the inherent wildfire threat of forested areas within and around the WUI. Wildfire threat is assessed using the Wildfire Threat Assessment (WTA) tool developed by BC Wildfire Service<sup>20</sup>, 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 does not take into account proximity to values or the consequence of damage to those values in a wildfire event.

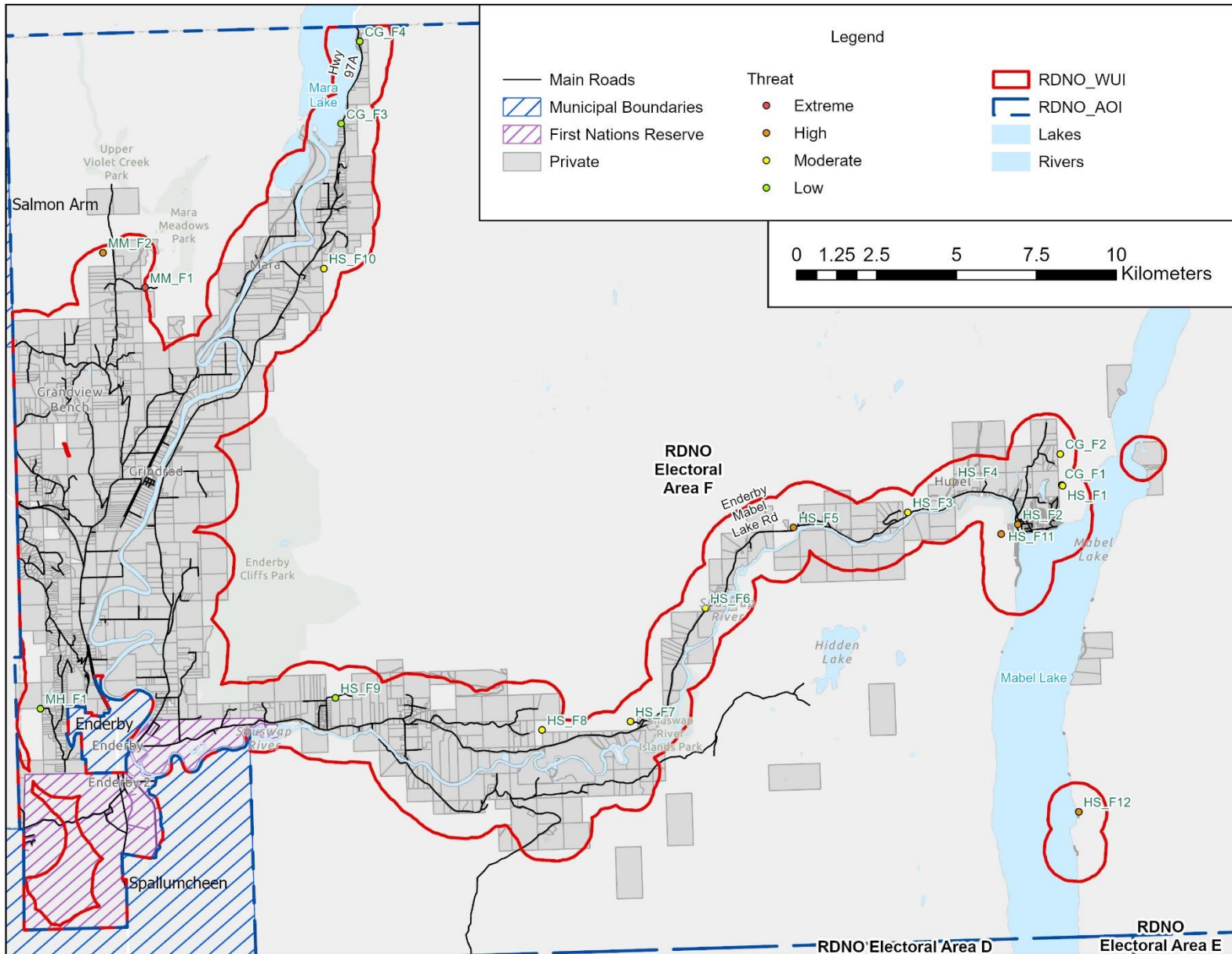
Field verification and wildfire threat analyses were completed on Regional District and provincial Crown land found within the 1 km WUI throughout Electoral Area F (Figure 20). A total of 20 WTAs were completed within the Electoral Area. Table 16 below outlines the results of the WTAs completed.

*Table 16. Summary of Wildfire Threat Assessments within Electoral Area F WUI.*

Wildfire Threat Assessment Rating	Number of WTAs	Percentage of all WTAs completed within the Electoral Area (%)
Low	4	20
Moderate	8	40
High	7	35
Extreme	1	5

Most of the plots within the Electoral Area F WUI fall within moderate or high wildfire threat. The plot areas with the higher fire threat were often associated with a higher accumulation of woody debris surface fuels and higher overstory density. The extreme wildfire threat plot has the most woody debris accumulation, with an estimated >45 tons per hectare of woody debris. From these plots fuel treatment units will be proposed to reduce the wildfire threat adjacent to values. See Section 5.7.3 for more information.

<sup>20</sup> <https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/fire-fuel-management/fuels-management/2020-wildfire-threat-assesment-guide-final.pdf>



**Figure 20. Wildfire Threat Assessment plot locations in Electoral Area F.**



## 5.0 FireSmart Disciplines

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

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

Each FireSmart discipline and their role in resiliency planning for RDNO Electoral Area F is outlined in the subsequent sections below.<sup>21</sup>

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<sup>21</sup> 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 within RDNO Electoral Area F understand the potential risk of interface wildfire and can play an active role to reduce that risk.

**Context:**

This CWRP is only successful if community members and stakeholders are collectively engaged in taking action to reduce the wildfire risk at the individual and community level. This CWRP aims to establish effective communication and develop educational activities so that each member of the community understands the potential for interface wildfire in Electoral Area F and can play their role to reduce that risk.

**Action:** Read and understand this CWRP's identified risks and recommended actions and make this CWRP publicly available to community members on the RDNO FireSmart website.

**Action:** Partner with local newspapers, radio, and community outlets to run a short monthly FireSmart column with seasonal tips, upcoming chipper/assessment dates, and Neighbourhood Recognition Program spotlights. Cross-post the same content on RDNO channels with a QR link to book assessments and sign up for alerts to keep messaging consistent across Area F.

**Action:** Host events, such as those listed below, to introduce FireSmart concepts to the community and educate members on actions they can take.

- **Wildfire Community Preparedness Day:** This event could be used to create a neighbourhood work bee, promoting people working on hands-on projects in the neighbourhood such as yard waste removal, pruning/limbing, and a FireSmart demonstration station. The RDNO can provide some basic equipment, information, and could be tied in with a chipping event.
- **Farm and Ranch Wildfire Preparedness Workshop:** This workshop would be focused for farm, ranch, and acreage owners. The event could provide information on preparing outbuildings, equipment yards, fuel storage, access/egress, water supply, livestock plans, and coordination with emergency services during an evacuation.
- **Neighbourhood Champion Workshop:** Training and support for local neighbourhood champions, who can assist the FireSmart Coordinator with coordinating neighbourhood-level



mitigation activities, events, and sharing FireSmart information. This is beneficial for RDNO to develop a working list of neighbourhood champion contact information and for these individuals to network and share ideas.

- **FireSmart booths and community events:** For easy dissemination of information, a FireSmart Booth can be set up at other events happening within and around the RDNO. This can include; the Vernon Farmers' Market, the Armstrong Interior Provincial Exhibition & Stampede, Vernon Home Show, etc. These events can be coordinated with the FireSmart Coordinators of the Member Municipalities to identify events in surrounding areas and provide support, promoting regional wide FireSmart messaging.
- **Wildfire season open houses at fire halls:** This can be coordinated with a structural fire event at the fire halls promoting wildfire and house fire safety. This allows community members to meet the Fire Department, see equipment used for firefighting, and ask questions to the FireSmart Coordinator, Emergency Management team, or the Fire Department.
- **Home Ignition Zone Yard Tours:** The FireSmart coordinator or LFR's can lead a short walking tour through a neighbourhood for community members, stopping at community houses (which permission from the land owner) to demonstrate real examples of applying FireSmart to the home ignition zone and can demonstrate the process of a Wildfire Mitigation Assessment to the group. This concept can also be applied to RDNO owned properties, recently fuel treated areas, and Green Spaces to demonstrate RDNO's FireSmart efforts.
- **Wildfire Preparedness and Evacuation Night:** This could be completed in several different formats but having 5-minute lightning talks with a question-and-answer period would allow for quick dissemination of information. Topics could include alerts and go-bags, neighbourhood check-in plans, evacuation route, livestock trailer readiness, pet and livestock implications, etc. This event can be tied into other events.
- **FireSmart Home Ignition Zone Competition:** Create a friendly FireSmart competition between community members, or neighbourhoods. Ask for before and after FireSmart photos to be used as community examples in future FireSmart content.

To help increase event turnout, it may be appropriate to combine a FireSmart event with another event to attract more people. Incentives, such as FireSmart related prizes may entice community members to attend. When discussing FireSmart examples, use real community examples to showcase neighbourhood wins. Add kid-friendly activities to the events to entrain and educate the whole family.

**Action:** Support FireSmart BC Education Program through the local schools or education groups and offer short classroom/club sessions and take-home checklists.

**Action:** Work with local garden centers to label low-flammability species, display FireSmart planting/signage at point-of-sale, and include QR codes to RDNO guidance and Assessment bookings. Coordinate seasonal promos on non-combustible mulch and "right plant, right place" kits to nudge adoption.

**Action:** Install educational/interpretive signage regarding wildfire ignition prevention and the role of wildfire in ecosystems in regional parks, recreation sites, campgrounds, etc. where appropriate



within the electoral area. This could be particularly useful along high-use recreational trails or campgrounds where starts are more likely to occur.

**Action:** Host a short FireSmart briefing for local landscapers/roofers and publish a “trained vendors” list to streamline homeowner upgrades.

#### Current Status:

Electoral Area F is early in its FireSmart journey and would benefit from establishing core program elements that turn awareness into consistent action. The regional program already offers strong foundations—clear web resources and sign-ups, established home assessments and chipping operations, a regular communications cadence through social media and Alertable. Leveraging these proven components and practices into Area F—using the same messaging, intake processes, branding, and simple performance tracking—can accelerate start-up, ensure consistency and quality across the region, and create a smooth pathway from first contact to tangible mitigation. Area F also sees the influx of seasonal residents and recreational users, with people recreating throughout Mabel Lake, Mara Lake, or travelling through the North Okanagan area.

**Action:** Share a seasonal-resident arrival kit in summer residential areas. This can include a one-page checklist, chipping program information, and Home Assessment sign-up link timed to common arrival weekends. Consider distribution through targeted mailouts, email to program subscribers, and handouts at transfer stations, and local retailers.

Although most responses came from outside Area F, the RDNO-wide survey still offers useful direction. Residents generally recognize FireSmart and are taking basic steps—regular yard clean-ups and debris removal—but they want simpler guidance and a clear contact for next steps. Interest in individual home assessments is mixed, while appetite for neighbourhood-level initiatives is stronger. Preparedness appears middling: evacuation planning is inconsistent and go-bags are less common. People lean on Alertable, the RDNO website, and social channels, while still valuing email and mailed newsletters. Many also ask for modest financial help, assistance with heavy work, and convenient chipping or green-waste options.

The RDNO FireSmart webpages are easy to find and navigate, with plain-language summaries and straightforward registration for assessments, chipping, and education requests. Having details and sign-ups on a single page reduces friction and helps Area F residents quickly see what is offered and how to participate.

**Action:** Schedule pre-season and high-risk-day reminders (website, email, alerts) with quick links to book Assessments and chippers.

Having a Local FireSmart Representative (LFR) for Area F will be integral to gaining traction in the area. A designated LFR will give the program a familiar, trusted face. A consistent local presence helps reduce hesitancy about government-led home assessments, making it easier for residents to say yes. These LFRs can host tables at farmers’ markets and community events, book Home Ignition Zone assessments on the spot, coordinate chipper-day participation, and coach neighbourhoods through the Neighbourhood Recognition Program. Assessments and debris removal are discussed in Section



5.7 Vegetation Management. Because the same people return season after season, follow-up is smoother, momentum is easier to sustain, and quality stays consistent across neighbourhoods.

**Action:** Add additional hires or volunteer LFRs or Wildfire Mitigation Specialists to assist in conducting community outreach, Wildfire Mitigation Program Assessments, Farm and Ranch Assessments, etc.

The FireSmart Canada Neighbourhood Recognition Program (NRP) is a natural “level-up” for streets and strata areas that have already taken part in chipping or HIZ visits. It guides a small group of homes through a simple plan—neighbourhood hazard assessment, priority tasks, and an annual event—leading to official recognition. The benefits are practical: a clear, step-by-step path for action, shared labour (e.g., clean-up days), and a visible goal that keeps people engaged year after year. Previously the community of Kingfisher was recognized in 2019 but no longer has FireSmart NRP status. Efforts should be made to encourage Kingfisher to renew their status, along with communities such as Grandview Bench, Ashton Creek, Grindrod, and Mara.

**Action:** Recruit and coach blocks/strata to achieve and renew FireSmart Canada NRP status; seed efforts with small “Neighbourhood Champion” micro-grants.

Although it is the responsibility of the RDNO FireSmart coordinator and program to disseminate FireSmart and wildfire risk reduction information to the community, with 62.6% of the WUI in Electoral Area F being private property, the onus must also fall on landowners. Below includes a list of resources and tasks that can be used by private property owners to begin their FireSmart journey.

- Follow the “FireSmart starts at home” guide<sup>22</sup>
- Book a Wildfire Mitigation Assessment with the RDNO<sup>23</sup>
- Sign-up for the RDNO Chipping Program<sup>24</sup>
- Attend RDNO related FireSmart and Wildfire events in your community
- Remove combustible materials from property as outlines in the FireSmart manual
- Choose FireSmart materials when making repairs or upgrades around the home, outbuildings, or other structures
- Complete a FireSmart Home Ignition Zone self-assessment<sup>25</sup>
- Visit the BC Wildfire Service dashboard to understand the latest updates during the wildfire season<sup>26</sup>
- On larger properties and conduct mini fuel treatments and vegetation removal, focusing in the home ignition zone and expand outward over time.

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<sup>22</sup> [FireSmart begins at home guide](#). BC FireSmart.

<sup>23</sup> [RDNO Home Ignition Zone Assessment](#). RDNO.

<sup>24</sup> [RDNO Chipping Program](#). RDNO.

<sup>25</sup> [Home Ignition Zone Self Assessment](#). BC FireSmart

<sup>26</sup> [Wildfire Dashboard](#). BC Wildfire Service.



## 5.2 LEGISLATION AND PLANNING

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

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

**Context:** Regional districts often work with limited tax bases and lean staff, so enforcing broad bylaws can be costly and unpopular in rural areas. Even so, a light, well-targeted regulatory backbone is useful: clear baseline rules set consistent expectations for development, provide a legal backstop in higher-risk situations, and align local practice with provincial standards. Within this context, several provincial and federal acts and regulations support or influence the CWRP process. A concise index of local bylaws and senior-government instruments is provided in Appendix C: Additional Resources for FireSmart Disciplines.

**City of Enderby Fire Protection Bylaw No. 1529, 2013:** The Regional District does not operate a fire department within Electoral Area F; however, the City of Enderby Fire Department has a separate fire protection area (Shuswap River) covering a portion of Electoral Area F. This City of Enderby Bylaw authorizes local firefighting services within the service area.

The RDNO does not have an Open Burning Bylaw which applies for Electoral Area F. The current RDNO Open Burning Bylaw (#2514) only applied to Electoral Areas B & C in the high population density areas to reduce uncontrolled fires and smoke. This bylaw is being recommended for amendments to better reflect the language around open burning by BCWS, in the RDNO Electoral Area B and Electoral Area C CWRPs.

**Action:** Develop drought water use regulations to be applied to a current bylaw or developed as a stand-alone bylaw. This will ensure adequate water resources during emergency events. (See example in Appendix H Examples of FireSmart/Wildfire Bylaws).

In addition to the existing bylaws pertaining to wildfire and emergency response, the RDNO should consider establishing guiding principles for wildfire protection throughout the region. These guiding principles will help to steer future legislation, planning, development, firefighter training, and the overall FireSmart Program.

**Action:** Establish guiding principles for wildfire protection for the RDNO. (See example in Appendix H Examples of FireSmart/Wildfire Bylaws).



### 5.3 DEVELOPMENT CONSIDERATIONS

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

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

**Context:** Planning tools carry most of the day-to-day load. Official Community Plans (OCPs) set objectives and policies that guide land use; bylaws then operationalize those policies at the site scale. A balanced approach embeds wildfire resilience into existing frameworks, e.g., wildfire hazard Development Permit Areas, FireSmart-aligned subdivision and servicing guidelines, and zoning that reflects local risk—while pairing those measures with non-regulatory tools such as education, voluntary assessments, rebates, and partnerships with local fire departments and provincial agencies. This tiered approach advances resilience within resource constraints and respects rural values.

The following local plans and bylaws related to wildfire risk reduction currently apply in Electoral Area F:

**RDNO's Electoral Area F Official Community Plan (Bylaw 2702):** Sets long-term land-use policy to guide growth, environmental stewardship, and development decisions in Area F. The OCP weaves wildfire considerations into land-use and development decisions—identifying interface areas and applying permit/policy tools to guide safer siting, design, and infrastructure. This framework reduces exposure, supports prevention, and improves response readiness across Area F.

The RDNO Electoral Area F OCP outlines the following objectives and policies relating to wildfire/emergency management:

#### Wildfire Hazard Development Permit Area

Given the naturally dry climate of the Okanagan, wildfire is an ever-present threat which can swiftly destroy homes, businesses, infrastructure, and property improvements. During the 2003 Okanagan Mountain Fire, it was reported that at times the intensity of this wildfire was such that burning



debris “the size of dinner plates” was being propelled 6 - 8 km ahead of the main fire. Ultimately, the Okanagan Mountain Fire destroyed 239 homes. During the 2009 Glenrosa fire in the Central Okanagan, flying embers were igniting ground fires 500 metres ahead of the main fire. Such examples demonstrate the importance of taking steps, through site planning, design and ongoing maintenance, to help safeguard property against the threat of wildfires.

Guidelines for the Wildfire Hazard Development Permit Area are intended to help property owners take steps at the subdivision stage which would protect property from the effects of wildfire and to provide direction to information regarding mitigation of wildfire hazards.

1. The Wildfire Hazard Development Permit Area is designated under Local Government Act Section 488(1)(b) Protection of Development from Hazardous Conditions. The primary objective of this designation is to protect development from wildfire hazards by identifying and implementing particular development and maintenance measures.
2. The Wildfire Hazard Development Permit Area is shown on Schedule “F” as areas with a Wildfire Hazard Rating of Moderate to High and unless a Wildfire Hazard Development Permit Exemption applies, development either wholly or partially within a Wildfire Hazard Development Permit Area will require a Development Permit prior to any of the following activities:
  - a. subdivision as defined in the Land Title Act and Strata Property Act.
3. All Wildfire Hazard Development Permit applications must include a detailed site plan that indicates:
  - a. location and use of existing and proposed buildings and structures including the distance to parcel boundaries; and
  - b. location of existing and proposed roads, driveways and parking areas; and
  - c. the location of any depressions, hills, banks, cliffs, ravines and similar topographic features on the subject property.
4. Prior to the approval of subdivision within the Wildfire Hazard Development Permit Area:
  - a. a report prepared by a Registered Professional Forester shall be required that assesses the proposed development, and
  - b. provides recommendations that may form the basis of Development Permit conditions, to minimize the risk of wildfire hazard but are also congruent with Environment and Natural Areas Objectives and considers ecological values specifically wildlife, soil conservation and riparian habitat; and



c. a Section 219 Restrictive Covenant shall be required to be registered under the Land Title Act as a priority charge against the Title of the subject property for all areas determined by the Registered Professional Forester to be at risk of wildfire. The covenant must incorporate the recommendations of the Registered Professional Forester and indemnify the Regional District of North Okanagan in the event of any losses or damage to property which may occur as a result of a wildfire.

5. Developers of new subdivisions should consider the integration of trails, roads and cleared park land around development which may serve as fire breaks, and/or provide vehicle access routes to facilitate fire suppression in interface areas.
6. It will be a condition of each Development Permit that the land be developed and maintained in accordance with the approved Development Permit.

Emergency Planning / Interface Readiness

**6.5.3:** Evaluate the feasibility for open fuel breaks along the properties on the west side, which is currently designated as a High Interface Fire Hazard Zone.

**6.5.4:** The RDNO will continue to explore fire protection service options for the Kingfisher community.

**6.5.5:** Work with the Ministry of Forests to ensure alternative exit routes and forest service roads out of the Kingfisher community are not decommissioned.

Water / Infrastructure (supporting fire protection)

2.1.6 (Objectives) "To provide direction for the expenditure of capital works programs such as water, sewage, public buildings, recreation facilities, or fire protection."

Recommendations to Consider for Improving RDNO's Electoral Area F Official Community Plan (Bylaw 2702)

**Action:** Wildfire Interface – Development Permit Area (WI-DPA) Administration and Applicability

- Add a one-page WI\_DPA checklist (submitted with permits) to streamline reviews; audit a small sample annually (See example in Appendix H Examples of FireSmart/Wildfire Bylaws)
- Discourage high-risk plants in the Immediate and Intermediate Zones.

**Action:** Site Design and Building Standards

- Support and encourage the application of FireSmart principles for existing development, but make it mandatory for new development.

**Action:** Covenants and Maintenance



- Use *Section 219* covenants on higher wildfire risk sites and note intended maintenance outcomes when the covenant is triggered; re-affirm at resale or new permit instead of fixed inspection cycles.
- Provide a simple covenant template coupling wildfire and ecological objectives for consistency. (See example in Appendix H Examples of FireSmart/Wildfire Bylaws)

**Action:** Water Supply and Fire-Fighting Infrastructure

- Where community water exists, meet hydrant spacing/flow per the water purveyor/FUS; where not, accept cisterns, dry hydrants, or drafting sites with year-round access.
- Require “as-built” GIS updates for public and private hydrants/water points so responders can find them quickly (low ongoing admin).
- Acknowledge staged drought measures that prioritize firefighting reserves and cross-reference the drought/water-use bylaw.

**Action:** Evacuation and Transportation

- Add consideration for emergency evacuation
  - Require a secondary egress for new single-access subdivisions.
  - Ensure road geometry supports emergency apparatus (width, grade, turning radius) and all-season maintenance.

**Action:** Delivery and Compliance Approach

- Prioritize risk-based auditing: Focus scarce inspections on highest-risk areas identified in the CWRP mapping.
- Prefer incentives over heavy enforcement: Pair guidance with rebates/recognition; reserve penalties for egregious cases given limited staff capacity.

There are several examples of other municipalities and regional districts with strong examples of Wildfire Development Permit Areas. This includes:

- The City of Williams Lake<sup>27</sup> – Which incorporate the requirement of FireSmart Materials and FireSmart Landscaping within the Wildfire DPA.
- The District of North Vancouver<sup>28</sup> – Which includes an interactive map for property owners to easily interpret the location of the Wildfire DPA and quick visual reference guides and brochures for residence to easily review.
- Squamish – Lillooet Regional District<sup>29</sup> – Provides a 1-page reference guide of residence with reference to each Electoral Area OCP.

<sup>27</sup> <https://www.williamslake.ca/DocumentCenter/View/291/CHAPTER-7DEVELOPMENT-PERMIT-AREAS?bidId=>

<sup>28</sup> <https://www.dnv.org/business-development/wildfire-hazard-development-permit-area-dpa>

<sup>29</sup> <https://www.slrd.bc.ca/planning-building/planning-development-services/development-application-forms-guides-fees/application-forms-guides>



A list of additional community with example Wildfire Development Permit Areas is included in the FireSmart Development Permit Guide<sup>30</sup>.

**Subdivision Servicing Bylaw, 2013 Bylaw 2600:** Sets servicing standards for new subdivisions in Electoral Areas B–F. *Section 410* requires fire hydrants in subdivisions that have both fire protection and a community water system, installed to the standards of the fire department or water system authority. Requiring hydrants ensures reliable firefighting water supply in the WUI, supporting faster knockdown and limiting fire spread and damage.

**Action:** Where community water is not feasible, require accredited alternatives (cisterns, dry hydrants/drafting sites) per FUS Alternative Water Supply protocol.

**Action:** Add requirements for year-round access/clearances, visible marking, and GIS as-built updates so crews can find and use public and private hydrants quickly (supports WUI readiness). (*General best-practice recommendation.*)

**Zoning Bylaw #3000:** Establishes zoning for Electoral Areas B–F (excluding the SilverStar area of Area C) and regulates how land, buildings, and structures may be used. By controlling building placement and development density—and mapping where different uses can occur—the bylaw provides the framework that other wildfire tools (e.g., DPAs, hydrant standards) rely on to improve separation between structures and maintain access for responders, which supports WUI risk reduction.

Existing Regulations Related to Fire, Wildfire, FireSmart, or Water Use:

#### Fire

- The only mentions of "fire" are indirect and mostly pertain to:
  - Compliance with the BC Building Code and BC Fire Code.
  - Restrictions on incineration of certain waste types in industrial zones.
  - No reference is made to wildfire-specific setbacks, building materials, or vegetation management.

#### Water Use

- Water-related sections include floodplain management, riparian area protection, and regulations for community water systems:
- Community water systems are defined but not linked to emergency water supply or wildfire suppression capability.

#### Vegetation and Landscaping

- There are landscaping regulations (Section 10), but these do not address flammable plants, defensible space, or FireSmart landscaping principles.

### **Recommendations to Consider for Improving RDNO's Zoning Bylaw (Bylaw 3000)**

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<sup>30</sup> [https://firesmartbc.ca/wp-content/uploads/2024/10/2024.10.02\\_FSBC\\_Wildfire\\_DPA\\_Guidance.pdf](https://firesmartbc.ca/wp-content/uploads/2024/10/2024.10.02_FSBC_Wildfire_DPA_Guidance.pdf)



**Action:** Add Specific Wildfire-Resilient Development Regulations

- Include FireSmart Guidelines in Landscaping Requirements (9.1, 10.1)
  - Reference FireSmart BC Guidelines so updates apply without bylaw rewrite

**Action:** Static/alternative water where no pressurized system

- Add a cross-note in *Section 5 (Subdivision Regulations)* (new clause after s.5.6) pointing to Subdivision Servicing Bylaw 2600 for hydrants/cisterns/dry-hydrants; keep base definitions for “community water system” in *Section 2 (Definitions)*.

**Action:** Improve Regulations for Outbuildings and Accessory Structures

- Add a minimum separation from the principal dwelling for combustible accessory buildings in *Section 4 (Development Regulations)* and tighten setback exceptions in s.4.4 where needed.
- Include limits on plastic sheds, wood storage, and trellises in the Immediate and Intermediate Zones.

**Action:** Encourage Fire-Resistant Building Design

- Place exterior-material and ember-resistant venting requirements in *Section 4 (Development Regulations)* for designated wildfire hazard zones.

**Action:** Enhance Access and Egress Requirements

- Use s.5.6 (*Building Sites & Private Access Driveways*) to set driveway width/grade/turn-around standards for heavy apparatus.

**Action:** Add Reference to FireSmart in Definitions and General Use

Insert definitions for FireSmart, wildfire resiliency, Immediate/Intermediate/Extended Zones in *Section 2 (Definitions)*; add a brief applicability note in *Section 3 (General Use Regulations)* that developments in mapped wildfire areas must meet the *Section 4 standards*.



## 5.4 INTERAGENCY COOPERATION

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

**Goal:** To establish and maintain collaborative relationships amongst the RDNO staff and key emergency response and management partners, including municipal Fire Departments and emergency preparedness staff, local First Nations, BC Wildfire Service, EMCR, Ministry of Forests, and other stakeholder groups to achieve a more wildfire resilient region.

**Context:**

As of 2024, the FCFS Program required all applicants to participate in a *Community FireSmart and Resiliency Collaborative* (CFRC) in order to receive additional funding through the program.<sup>31</sup> 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 play 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 FCFS Program, funding is available for up to four local government staff (including fire departments) to attend the Wildfire Resiliency and Training Summit annually.

**Action:** Annually attend the Wildfire Resiliency Training Summit.

**Current Status:** The RDNO has an active CFRC comprised of key internal local government staff, including the FireSmart Coordinator, Protective Services Manager, Rural Services Manager, and other RDNO staff when required. In addition to the RDNO staff, the CFRC extends to the FireSmart Coordinators and/or a representative from each Member Municipality and the two First Nations groups (Splatsin First Nation, and the Okanagan Indian Band). The group meets quarterly to discuss

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<sup>31</sup> For more information regarding FireSmart Community Funding & Supports Program visit: <https://www.ubcm.ca/cr/firesmart-community-funding-supports>



wildfire preparedness and actions to cooperatively implement FireSmart programs throughout the entire region. Where applicable invite additional community partners to attend the CFRC meetings, such as BCWS, Ministry of Forests Wildfire Risk Reduction, BC Hydro, CN and/or CPKC Railway, etc.

**Action:** Continue to participate in the North Okanagan Community FireSmart and Resiliency Collaborative and share findings of CWRP with partners.

**Action:** Invite additional community partners to attend the CFRC when appropriate to share knowledge regarding ongoing wildfire risk reduction projects in the region, voice community concerns to other jurisdictions and strategize mid- to long-term planning.

**Action:** Work collaboratively with woodlot owners with license areas adjacent/near to private residences to manage for wildfire risk in forest management planning and harvest operations.

As part of this CWRP process, the RDNO held an engagement session with the Member Municipalities and local First Nations groups. These individuals already participate in the North Okanagan CFRC. Conversations focused around ideas developed in previous CFRC meetings, and how RDNO can help other communities better establish their FireSmart programs to coordinate a region wide program and share resources. The following are actions that arose from this engagement meeting, and may need to be further discussed at future CFRC meetings:

**Action:** Collaborate with the Member Municipalities and local First Nation groups during conducted training, extending offerings to seats in courses or conduct collaborative training events.

**Action:** Consider establishing a mechanism from FireSmart Coordinators, etc), when needed with the Member Municipalities and Local First Nations.

**Action:** Have a discussion with UBCM on the concept of pooling FCFS funding between multiple jurisdictions (RDNO, Member Municipalities, local First Nations) to conduct FireSmart activities.

**Action:** Consider developing a region wide chipping program to be utilized by RDNO, Member Municipalities, and the local First Nations.

**Action:** Develop a group calendar or other format for members of the CFRC to share community events (not just FireSmart) for other members to participate in or provide additional support for that community's FireSmart program.



## 5.5 CROSS-TRAINING

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

**Goal:** Develop a diverse skill set within 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 introduces the key concepts to minimize the negative impacts of wildfires in BC.
- **Fire Life and Safety Educator** - A public education course for fire safety education.
- **ICS-100 (Incident Command System)** - Introduction to an effective system for command, control, and coordination of response at an emergency site.
- **S-100** - Basic fire suppression and safety and S-100A (annual refresher).
- **S-185** - Fire entrapment avoidance and safety.
- **SPP-WFF1** - Wildland Firefighter Level 1 (includes S-100, S-185, and ICS-100).
- **Wildland Structure Protection Program (WSPP-115)** - training for structure protection unit crews and WSPP-FF1 (train the trainer).
- **S-231 - Engine Boss** (training for structure protection program in a WUI event).
- **Task force leader (TFL-1 & TFL-Advanced)** for structure defense only – course for structural fire personnel to monitor and assess specialty resources that work together to accomplish a common task.
- **Structure Division/Group Supervisor (Divs/GrpS)** for structure defense only – course for structural fire personnel to implement assigned portion of the Incident Action Plan and be responsible for all operations conducted in the division/group).



**Action:** Provide opportunities for additional training for the members of the City of Enderby Fire Department.

Cross-training opportunities for cooperative community wildfire response (CCWR) organizations now exist through the FCFS program. Although there are currently no CCWR organizations, if any do arise the following training courses are available to these personnel:

- **S-100** - Basic fire suppression and safety and S-100A (annual refresher).
- **S-185** - Fire entrapment avoidance and safety.
- **ICS-100 (Incident Command System)** - Introduction to an effective system for command, control, and coordination of response at an emergency site.
- **Wildfire Risk Reduction Basics Course** - Free, online course for non-forest professionals that introduces the key concepts to minimize the negative impacts of wildfires in BC.
- **SPP-115** - Structure Protection Program within the WUI.

**Action:** If any Cooperative Community Wildfire Response (CCWR) organizations are established throughout Electoral Area F, provide basic training courses in wildfire and safety to the personnel.

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.
- **FireSmart BC Farm and Ranch Training** - free online source suitable for FireSmart position

**Action:** Provide opportunities to RDNO staff, FireSmart Coordinator, and committed community members for additional training relating to FireSmart and wildfire risk reduction.

**Action:** Wildfire Mitigation Specialist training for RDNO staff to allow these individuals to conduct Wildfire Mitigation Programs, Cultural Site and Green Spaces, and Critical Infrastructure Assessments.



Training opportunities to develop cultural and prescribed fire practitioners. Eligible training available to these personnel includes:

- **BCTREX** – Prescribed Fire Training Exchange. This is a collaborative, hands-on training event designed to bring together firefighters, land managers, researchers, and other stakeholders to conduct prescribed burns while gaining experience and exchanging knowledge.
- **RX310 Introduction to Fire Effects** – An introduction to fire effects that offers an overview of the fundamental principles and ecological impacts of fire across diverse ecosystems.
- **2-11 The Fire Environment for Firefighters and Dispatchers** – An introduction to the influences of weather, topography, and fuels on wildland fire behaviour to support safe and effective fire management decisions.
- **S-290 Principles of Fire Behaviour** – An intermediate-level course on the factors that influence wildland fire behaviour to support predictive decision-making in fire operations.
- **S-291 Understanding the Fire Weather Index System** – Concepts and application of the Canadian Fire Weather Index (FWI) System for evaluating and predicting fire danger conditions

Wildland live fire training is an excellent opportunity for cross-training, interagency cooperation, and vegetation management for all parties involved. Potential prescribed fire areas are described in Section 5.7. The RDNO must work with the BCWS zone staff to further identify suitable locations for live fire training burns, obtain necessary authorizations, develop the burn plan, implement the live burn training, and debrief to inform future training and project planning. This training should extend to the FireSmart coordinator, RDNO fire department staff, other RDNO staff as suitable, Member Municipality representatives, and the local First Nations.

**Action:** Provide training opportunities to the FireSmart Coordinator, essential RDNO staff, and members of the City of Enderby Fire Department (in collaboration with the City of Enderby) to develop cultural and prescribed fire knowledge through eligible training courses.

**Action:** Provide opportunities for live wildland fire training exercises. Collaborate with RDNO fire departments, RDNO staff, BCWS, Member Municipalities, and the local First Nations to practice working under unified command in a wildland environment.



## 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 provincially. 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:

In 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. The RDNO is currently awaiting finalization of the new EDMA Regulations to update their current Emergency Management Plan for the entire RDNO and ensure alignment with the most recent legislation.

The Kingfisher/Mabel Lake Evacuation Plan excels at being practical and complete: it sets clear legal authority and alternates, anchors operations in BCEMS/ICS with defined roles across local, provincial, federal, and non-governmental organization partners, and translates that into on-the-ground pieces—evacuation routes and zones, assembly points, reception centers, and traffic-control strategies. It is data-informed (demographics, road capacity, peak-season scenarios, estimated clearance times), spells out notification methods (resident system, door-to-door, house marking), and builds in care for people and animals (ESS lodging standards, at-risk populations, pets/livestock). It



also includes good governance bones—distribution list, record of amendments, and plan maintenance—so it can be kept current and exercised.

***Recommendations to Consider for Improving the Kingfisher/Mabel Lake Evacuation Plan:***

**Action:** Public emergency notification. Promote multi-channel Alertable enrollment despite no cell coverage: Encourage every household to register for Alertable and add at least two contact methods that work without cellular service—email and a landline phone call-out—so they still receive evacuation Alerts/Orders. In outreach, explain that residents who use satellite phones/messengers can configure those services to mirror local advisories (where supported). Provide simple sign-up steps at events, include a short URL/QR on mailers, and offer phone assistance so seniors and seasonal residents get set up.

**Action:** Make triggers more operational. The plan notes triggers and even references a formula. Consider establishing a simple worksheet with inputs such as notify time, clearance time, route capacity, hazard rate of spread, etc. so EOC can compute “go/no-go” in minutes.

**Action:** Publish role-based checklists. It already defines structure/roles via BCEMS/ICS; pair that with concise Alert/Order/Rescind checklists for EOC positions and Evac Branch.

**Action:** Traffic & movement playbooks. Strategy and congestion risks are already framed; append quick “how-to” inserts (contraflow, TC points staffing, lane priorities, tow support) linked to zone clearance.

**Action:** Reception/ESS & re-entry. Add Reception Center/Group-Lodging setup cues and a re-entry checklist (permits, safety checks, comms) so recovery starts as evacuation ends.

**Action:** Public-info templates. Pre-draft Alert/Order/Rescind and SIP messages to speed releases and keep content consistent across channels.

In addition to the Kingfisher Evacuation Plan, a general RDNO Emergency Management Plan gives everyone the same playbook, so response is coordinated even when an incident starts outside a “vulnerable” pocket or jumps between communities. It sets common roles, routes, and communications, which reduces confusion at road junctions, reception centres, and detours shared by multiple areas. It also covers cross-cutting needs—at-risk residents who live outside priority zones, mutual-aid and contractor call-outs, public messaging, and re-entry—so nothing falls through the cracks. Region-wide planning improves resource prioritization during surges (tourism, smoke impacts, highway closures) and avoids conflicting directions between neighbouring spots. Finally, it helps with funding and training: one baseline plan supports consistent exercises and quick updates, while community-specific addenda handle the unique risks where they exist.

**Action:** Complete a Hazard, Risk & Vulnerability Assessment (HRVA). Commission an HRVA for the electoral area to identify top hazards, who/what is exposed (people, roads, utilities), vulnerable populations, and seasonal pinch points. Deliverables should include a simple risk map, priority actions, resource gaps, and a short improvement plan (alerts, evacuation, communications). Involve RDNO, BCWS, neighbouring jurisdictions, ESS/social services, and local champions; update the HRVA annually or after major events.



**Action:** Create an Emergency Management Plan and centralized regional Emergency Operations Centre. Hire a qualified planner to produce a right-sized, all-hazards plan: map risks and routes; define clear roles and plain-language checklists; set up multi-channel alerts (email/landline/radio); outline Reception/ESS and basic re-entry; and establish a light training and annual update cycle—coordinated with RDNO, local fire/ESS, nearby jurisdictions, and Indigenous partners

It is important to not just have an Emergency Management Plan, but know the entirety of the plan, so when an emergency event happens, the RDNO is prepared to execute the procedures. This can be done in a variety of ways but should be conducted at least annually prior to fire season to ensure staff is ready for a wildfire emergency. Examples of training on the Emergency Management Plan could include mock scenarios, tabletop exercises, round table discussions of the plan, etc., and can include RDNO staff, Fire Department Members, and external partners. Topics can range from how to action wildfire, evacuations, or setting up the EOC. The following guides can be used as resources for establishing Emergency Management Plan Training:

1. US Federal Emergency Management Agency – Wildfire Evacuation Exercise Starter Kit<sup>32</sup>
2. Red Cross – Quick Drill Wildfire<sup>33</sup>
3. British Columbia Association of Emergency Managers – Emergency Operations Centre Wildfire Exercise Support Package<sup>34</sup>

**Action:** Conduct an annual cross-training event with RDNO staff, City of Enderby Fire Department, and interested external partners (Member Municipalities, local First Nations, BCWS, etc.) that simulates using the emergency response plan.

### 5.6.1 Pre-Incident Wildfire Response Planning

Pre-incident wildfire response planning is recommended for Electoral Area F 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.<sup>35</sup> The guide includes a planning checklist, which is listed below (Table 17), to help develop the plan and accompanying maps. Evacuation route planning and testing are high priorities for incorporating into the pre-incident plan.

<sup>32</sup> <https://preptoolkit.fema.gov/web/em-toolkits/wildfire-evacuation>

<sup>33</sup> [https://www.readyrating.org/resource-center/training-and-exercises/quick-drill-wildfire?utm\\_source=chatgpt.com](https://www.readyrating.org/resource-center/training-and-exercises/quick-drill-wildfire?utm_source=chatgpt.com)

<sup>34</sup> [https://bcaem.ca/wp-content/uploads/BCAEM-EOC-Exercise-Scenario-Wildfire.pdf?utm\\_source=chatgpt.com](https://bcaem.ca/wp-content/uploads/BCAEM-EOC-Exercise-Scenario-Wildfire.pdf?utm_source=chatgpt.com)

<sup>35</sup> National guide for wildland – urban – interface fires <https://nrc-publications.canada.ca/eng/view/object/?id=3a0b337f-f980-418f-8ad8-6045d1abc3b3>



*Table 17. Example of a pre-incident planning checklist*

<p><b>Command</b></p> <ul style="list-style-type: none"> <li>• Escape Fire Situation Analysis (if appropriate)</li> <li>• Pre-positioning needs</li> <li>• Draft delegation of authority</li> <li>• Management constraints</li> <li>• Interagency agreements</li> <li>• Evacuation protection needs</li> <li>• Closure procedures</li> </ul> <p><b>Logistics</b></p> <ul style="list-style-type: none"> <li>• Base camp locations</li> <li>• Roads, trails (including limitations)</li> <li>• Utilities</li> <li>• Medical facilities</li> <li>• Stores, restaurants, service stations, accommodations</li> <li>• Transport resource locations</li> <li>• Rental equipment sources (by type)</li> <li>• Construction contractors</li> <li>• Sanitary facilities</li> <li>• Police, fire departments, forest service, ambulance</li> <li>• Power utility companies (gas and pipeline companies)</li> <li>• Communications (radio and frequencies, telephone)</li> <li>• Sanitary landfills</li> <li>• Potable water sources</li> <li>• Maintenance facilities</li> </ul>	<p><b>Operations</b></p> <ul style="list-style-type: none"> <li>• Heli-spot, Heli-base locations, flight routes, restrictions, water sources</li> <li>• Control line locations</li> <li>• Natural barriers</li> <li>• Safety zone options</li> <li>• Staging area locations</li> <li>• Fuel caches</li> <li>• GPS locations for helicopter access</li> </ul> <p><b>Planning</b></p> <ul style="list-style-type: none"> <li>• Community base map</li> <li>• Topographic maps</li> <li>• Infrared imagery</li> <li>• Vegetation/fuel maps</li> <li>• Hazard locations (ground and aerial)</li> <li>• Archeological and cultural base map</li> <li>• Endangered species and critical habitat</li> <li>• Sensitive plant populations</li> <li>• Water Sources</li> <li>• Land status</li> <li>• Priority zoning</li> <li>• Access and egress points and routes</li> <li>• High risk facilities (e.g., schools, hospitals)</li> <li>• Infrastructure</li> </ul>
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**5.6.2 Wildfire Preparedness Planning**

As part of pre-incident planning, the municipality may consider developing local daily action guidelines based on expected wildfire conditions. The table below provides a template that can be tailored specifically to the locality 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 region should be updated to reflect the current fire danger.

*Table 18: Sample Wildfire Response Preparedness Condition Guide*

<b>Sample Wildfire Response Preparedness Condition Guide</b>	
<b>Prep-Con Level</b>	<b>Action Guidelines</b>
<b>I LOW</b>	<ul style="list-style-type: none"> <li>• All Community staff on normal shifts.</li> <li>• Staff will update fire danger signs.</li> </ul>
<b>II MODERATE</b>	<ul style="list-style-type: none"> <li>• All Community staff on normal shifts.</li> </ul>
<b>III HIGH</b>	<ul style="list-style-type: none"> <li>• All Community staff on normal shifts.</li> <li>• Regional fire situation evaluated.</li> <li>• Daily fire behaviour advisory issued.</li> <li>• Wildland fire-trained Community staff and EOC staff notified of Prep-Con level.</li> <li>• Establish weekly communications with local wildland fire agency contacts</li> <li>• Hourly rain profile for all weather stations after lightning storms. Update fire danger signs.</li> </ul>
<b>IV EXTREME</b>	<ul style="list-style-type: none"> <li>• Rain profile (see III).</li> <li>• Daily fire behaviour advisory issued.</li> <li>• Regional fire situation evaluated.</li> <li>• EOC staff considered for stand-by.</li> <li>• Wildfire Incident Command Team members considered for stand-by/extended shifts.</li> <li>• Designated Community staff: water tender and heavy machinery operators, arborists may be considered for stand-by/extended shifts.</li> <li>• Provide regular updates to media services members/community staff on fire situation.</li> <li>• Update public website with new information changes.</li> </ul>
<b>V FIRE(S) ONGOING</b>	<ul style="list-style-type: none"> <li>• All conditions apply as for Level IV (regardless of actual fire danger rating).</li> <li>• Provide regular updates to media/structural fire departments/park staff on fire situation.</li> <li>• Mobilize EOC support if evacuation is possible, or fire event requires additional support.</li> <li>• Mobilize Wildfire Incident Command Team under the direction of the Fire Chief.</li> <li>• Implement Evacuation Alerts and Orders based on fire behaviour prediction and under the direction of the Fire Chief.</li> </ul>



**Action:** Assess the number of residents that may be more vulnerable or at higher risk during an emergency evacuation and what specific supports they may require. Social support service groups and organizations will be a good resource for acquiring this information while keeping confidentiality.

**Action:** Assess, inventory, and purchase FireSmart structural protection equipment.

**Action:** Conduct pre-incident planning to create a community specific pre-incident checklist and wildfire response preparedness condition guidelines which should be reviewed prior to each fire season.

**Action:** Purchase electronic sign boards to be strategically placed throughout the Electoral Area to community current Fire Danger Ratings and wildfire-related public messaging.

**Action:** Train LFR's and WMS trained individuals on the RDNO Emergency Management Plan and Evacuation Plans to deploy them as informational resources during evacuations or other emergencies.



## 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 treatments, is an important element of wildfire risk reduction within the WUI. The primary objective of fuel management is to reduce the fuels available to burn and alter aspects of wildfire behaviour for safer and more effective suppression strategies.

Nearly 70% of the one-kilometer WUI area throughout Electoral Area F is occupied by private land parcels, including dense population areas in rural Enderby and Kingfisher, to large acreages, farms, and ranches in the outskirts of the communities. Fuel management treatments on any private properties are ineligible for funding. Completing fuel management treatments on 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 of private landowners undertaking to implement FireSmart activities on their homes/structures and extending out into the Immediate, Intermediate, and Extended Zones. This is particularly important for large, forested private land parcels often found in rural communities.

### 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*<sup>36</sup> is an excellent tool to help residents and planners make informed choices about how to manage their lawns and gardens to increase resilience to

<sup>36</sup> [https://firesmartbc.ca/wp-content/uploads/2021/04/FireSmartBC\\_LandscapingGuide\\_Web\\_v2.pdf](https://firesmartbc.ca/wp-content/uploads/2021/04/FireSmartBC_LandscapingGuide_Web_v2.pdf)



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.

Vegetation management guidelines at the residential scale are further delineated by the FireSmart Home Ignition Zones (HIZ). Please refer to Appendix B for guidelines within each ignition zone. The HIZ are the basis for the Wildfire Mitigation Program Assessment, which are currently being conducted by the RDNO for private property owners when requested.

**Action:** Continue to conduct Wildfire Mitigation Program Assessments and/or Farm and Ranch Assessments for private landowners. Based on the Assessments, encourage property owners to implement as many mitigation activities as possible through local rebate programs for completed eligible FireSmart activities.

**Action:** If residents prefer not to book a formal assessment, direct them to complete a private self-assessment using the FireSmart Begins at Home app. Update the RDNO FireSmart page by repairing the self-assessment link to point to the app landing page and add links to printable self-assessment materials (PDFs) for paper users.

**RDNO Chipping Program:** The RDNO currently has an active chipping program that is applied across the entire Regional District. This program is free to use to residents in RDNO, offering curbside pickup of chippable pruning materials from registered private property owners<sup>37</sup>.

**Action:** Continue to conduct the RDNO FireSmart Chipping Program annually, starting the program in the spring during typical clean-up, through to the end of fall.

**Action:** Promote volunteer-supported yard-work events (priority to seniors/mobility-limited) focused on Immediate/Intermediate Zone tasks.

**Action:** Offer seasonal workshops on compliant pile-and-burn (permits, venting/ban conditions, safe pile sizing/setbacks), small-scale biochar (cone/retort kilns), community chipping/haul-out, green-waste drop-off, and composting options. Provide a simple decision-tree handout (“chip, burn, biochar, or haul?”) and align demos with community chipper days in coordination with RDNO and provincial guidance.

### Critical Infrastructure

FireSmart BC has developed a FireSmart Critical Infrastructure (CI) Hazard Assessment Form<sup>38</sup> for assessing the vulnerability of critical infrastructure to wildfire. Results of the assessment can help provide mitigation recommendations to enhance wildfire resiliency, including upgrades to structure components or vegetation management in the Ignition Zones surrounding the structure. In many

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<sup>37</sup> <https://www.rdno.ca/firesmart/chippingprogram>

<sup>38</sup> [https://firesmartbc.ca/wp-content/uploads/2020/09/FireSmart\\_FireSmartCriticalInfrastructureAssessment\\_Fillable\\_V1.pdf](https://firesmartbc.ca/wp-content/uploads/2020/09/FireSmart_FireSmartCriticalInfrastructureAssessment_Fillable_V1.pdf)



cases, the assessment and subsequent mitigation may extend beyond the legal land parcels on which the critical infrastructure occupies and may require collaboration with adjacent land managers or landowners. Completion of FireSmart Critical Infrastructure Hazard Assessments on CI identified for the RDNO was beyond scope of this CWRP project; however, an important next step would be to complete FireSmart Assessments on the highest priority values throughout Electoral Area F.

**Action:** Complete FireSmart Assessments on RDNO owned Critical Infrastructure and Community Assets within Electoral Area F.

**Action:** Once Assessments on RDNO owned Critical Infrastructure and Community Assets within Electoral Area F are completed, implement FireSmart recommendations and mitigation activities resulting from the completed Assessments with the goal of reducing hazard scores as much as feasibly possible.

### Cultural Sites and Green Spaces

The FireSmart Cultural Sites and Green Spaces (CSGS)<sup>39</sup> assessment is a qualitative process that is intended for assessing vulnerability of Indigenous cultural sites and local government green spaces. These can include sacred or traditional use sites, cultural features, parks, cemeteries, trails, and greenways. Implementing FireSmart activities in cultural sites and green spaces 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.

Completing FireSmart CSGS Assessments was beyond the scope of this CWRP. However, funding is currently available for FireSmart activities within these spaces should the Regional District be interested in implementing FireSmart landscaping in any of their regional or community parks, or other important green spaces. Green spaces mentioned in Section 3.4 Green Spaces and Cultural Sites may be good candidates for a FireSmart CSGS project, provided the area is less than 3 hectares in size. The following steps are currently required under the FCFS program for FireSmart CSGS projects:

1. *Checklist for FCFS Requirements for Fuel Management Prescription* 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).
2. Completion of *FireSmart CSGS Assessment* before mitigation work is started (completed assessment must be submitted at time of application but the cost is an eligible expense provided the assessment is completed within six months prior to the date of application submission).
3. Complete recommended mitigation activities identified in the *FireSmart CSGS Assessment*.

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<sup>39</sup> <https://firesmartbc.ca/resource/culturally-significant-sites-and-green-spaces-guide-assessment/>



**Action:** Apply for funding to complete an initial FireSmart CSGS Assessment for frequented green spaces in Electoral Area F. Once assessment is complete, apply for funding to complete the recommended eligible mitigation activities identified (limited to labour and material costs)

### 5.7.2 Complete or Active Fuel Treatment Units

Fuel management has occurred throughout the Electoral Area F in recent years, with several areas which have either been fuel managed or had fuel management prescriptions in place at the time this plan was written, as detailed in (Table 19). This review of previous fuel treatments does not encompass all historical treatments as there is no single database which identifies all historical treatments conducted by RDNO, BCWS, Ministry of Forests, or other land managers.

*Table 19. Known areas with planned or completed fuel management in RDNO Electoral Area F as of Summer 2025.*

Treatment Unit Name	Location	Status
Kingfisher	Along Mabel Lake Subdivision Road	Prescription has been completed, and treatment is currently in the implementation stage.  Note: This area overlaps with parts of proposed FTU_F13 identified in this plan.
Kingfisher 2	On the Mabel Lake main road, west of Kingfisher	The prescription has been completed, but the Ministry is not moving ahead with treatment implementations as it is low priority.  Note: This area overlaps with parts of proposed FTU_F9 identified in this plan.

**Action:** Create an inventory and monitoring system/database to track wildfire risk reduction and FireSmart vegetation management activities throughout the Regional District including:

- Areas that have had fuel management prescriptions and treatment operations completed
- Monitoring and maintenance planning for completed fuel treatment areas
- All critical infrastructure and community asset locations and descriptions
- Critical infrastructure assessments and associated FireSmart treatments completed
- FireSmart Assessments completed for private property owners
- Locations of piles chipped through the chipping program
- Neighbourhood Recognition Program starts and locations
- Records of all interface fire callouts for BX Fire Rescue

This information can be published as a seasonal dashboard to show progress and adjust tactics.

In addition to the FCFS program, UBCM administers the Crown Land Wildfire Risk Reduction (CLWRR) program through the Ministry of Forests for fuel management planning and treatments focusing on provincial Crown land around higher risk communities. For the Ministry of Forests to conduct any fuel



treatments, the areas must be first identified within a Wildland Urban Interface Wildfire Risk Reduce (WUI WRR) plan. Once the treatment areas are identified, they can be treated. Although this process allows for a high-level landscape overview on strategic locations of fuel treatments, it adds time, administrative burden, and limits the capacity to conduct fuel treatments on the landscape. RDNO may work with the Ministry of Forests to utilize the Crown land FTU's identified in this CWRP to treat under the CLWRR program. This may speed up the administrative and identification process of conducting fuel treatments.

**Action:** Work with BCWS and the MoF natural Resource District to determine opportunities for fuel treatment implementation through the CRI – CLWRR program.

### 5.7.3 Proposed Fuel Treatment Units

The proposed FTUs for this CWRP were identified based on wildfire threat identified during field work, available provincial crown land located within the eligible WUI, proximity to values, accessibility, and forest fuel types. The areas identified for potential treatment within Electoral Area F are detailed in Appendix G. All proposed FTUs have been identified for consideration include areas under the jurisdiction of both land managers and the RDNO.

The proposed FTUs in Appendix G are listed in order of general priority ranking classification, which is defined as:

- 1 = High Priority**
- 2 = Moderate Priority**
- 3 = Lower 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 accessibility, anchoring features, overlapping values, and/or constraints to fuel management activities. Prioritization ranking did NOT consider political or public appetite for fuel treatment activity within specific communities/neighbourhoods.

As assigning priority levels and rankings can be a subjective process based on best available information and an imperfect science, the RDNO withholds the right to complete proposed fuel treatment activities in whatever order they see fit and are not required to complete FTUs in the order listed in Appendix G. The Priority Ranking of FTUs within this CWRP is intended to guide the Regional District 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 refinement based on more intensive data collected during the fuel management prescription development phase.

Once an area is identified as a proposed fuel treatment unit, completing the vegetation/fuel management on the land base is a two-phase approach. The first phase involves the development of a Fuel Management Prescription (FMP) by a BC Registered Professional Forester (RPF). The FMP details the site-specific attributes and ecology of the identified forest area and prescribes appropriate



strategies for fuel reduction that meet objectives for wildfire risk reduction, as well as other important overlapping values such as wildlife habitat, ecological restoration, or recreation. It is the responsibility of the prescribing forester during the FMP development phase to ensure the proposed fuel treatment activities are ecologically suitable for the existing forest stand and site conditions and promote long-term forest resilience. Additionally, it is during the FMP development phase where further information sharing is completed with Indigenous Governments and stakeholders to ensure all concerns are identified and addressed/incorporated. For context, FMP development has an approximate cost of \$500/ha, which is reliant on several variables and can fluctuate greatly dependent on the complexity of the ecosystem.

The final phase is the implementation of the FMP where treatment operations occur on the ground. Operational contractors must be acquired to complete the treatment specifications as outlined in the FMP. Operational treatment costs average at \$10,000/ha for standard hand treatments and increase greatly with increased complexity and variables as described by the FMP.

Additionally, for proposed treatments adjacent jurisdictions of other land managers, the Regional District should work in collaboration with the Ministry of Forests, First Nations, and other applicable land managers at the fuel prescription development phase to determine suitability of treatment and funding options. Other land managers include but are not limited to:

- **Woodlot owners** – funding is available through Woodlots BC and the Forest Enhancement Society of BC (FESBC) for fuel treatments within woodlots.
- **Community Forests** – funding is available through FESBC for fuel treatments within community forests.
- **Provincial Parks and Protected Areas** - it is the jurisdiction of BC Parks to fund and implement fuel treatments within their parks and protected areas.

Appendix G details the proposed FTUs and includes information on their priority ranking and level, general size, local wildfire threat, overlapping values, rationale for treatment, and overall status. As requested by RDNO, this information is located in a separate appendix. Maps outlining the location of the FTUs can be found below in Figure 22, Figure 23, Figure 24, and Figure 21.

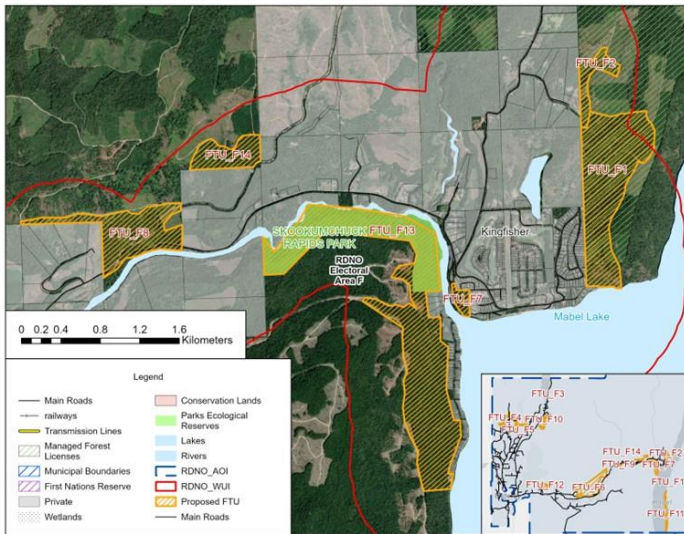


Figure 21. Proposed Fuel Treatments for Area F 1-2, 7-8, 13-14 in Kingfisher area.

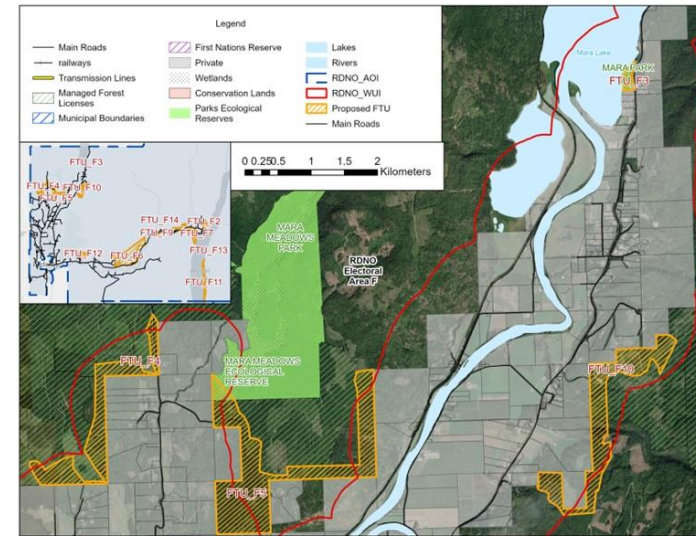


Figure 23. Proposed Fuel Treatments for Area F 3-5, 10 in Grandview Bench area.

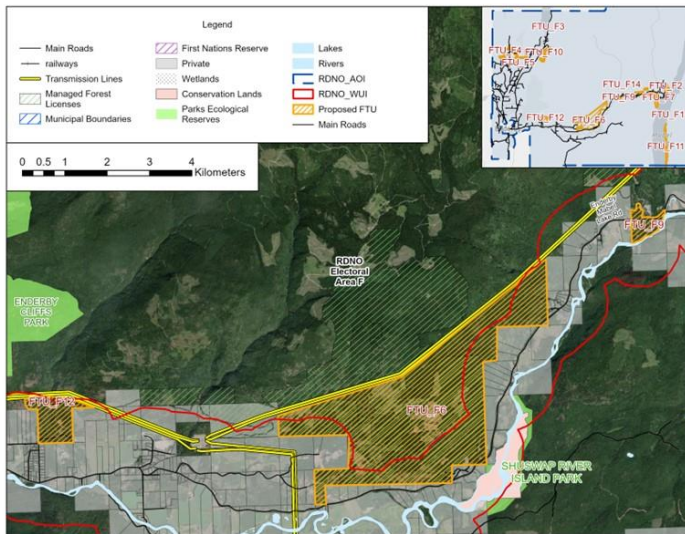


Figure 24. Proposed Fuel Treatments for Area F 6, 9, and 12 along Mabel Lake Road.

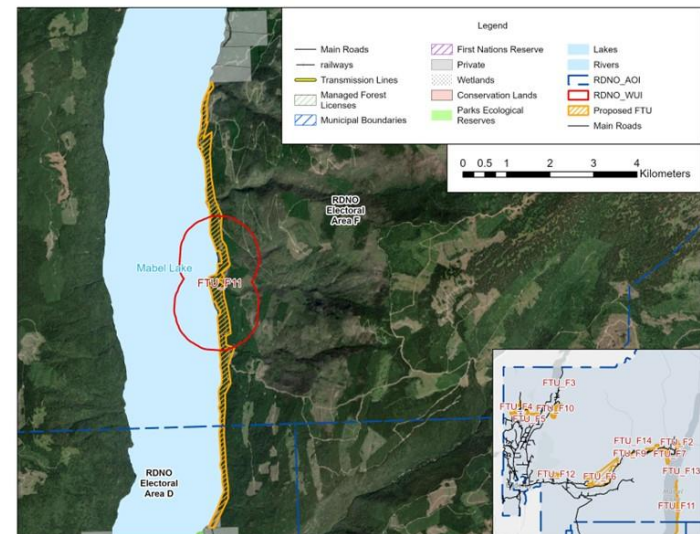


Figure 22. Proposed Fuel Treatments for Area F 11 on the east side of Mabel Lake.



**Action:** Apply for funding to develop fuel management prescriptions for forested areas identified on land within the eligible WUIs. It is recommended to start with high priority proposed fuel treatment areas as identified within this CWRP.

**Action:** Apply for funding to undertake fuel management treatment operations on land within the eligible WUIs based on completed fuel management prescription units.



## 6.0 Implementation

### 6.1 FIRESMART ROAD MAP

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<sup>40</sup>. 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. There are three fundamental elements that should be completed prior to beginning the FireSmart roadmap.

1. Establish a FireSmart position
2. Complete a Community Wildfire Resiliency Plan
3. Implement or participate in a Community FireSmart Resiliency Committee

#### 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 FireSmart and/or fuel management 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 on and implementing local FireSmart activities. The focus is on building capacity in people and the community 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.

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<sup>40</sup> FireSmart. (2023). The FireSmart Roadmap. Referenced from: <https://firesmartbc.ca/resource/the-firesmart-roadmap/>



- **Emergency Planning:** Assess community water delivery ability, purchase or inventory and maintain FireSmart structure Protection Trailers and continually update the emergency plan with lessons learned from previous events.
- **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** following completed FireSmart assessments.

### ***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 are 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 are not limited to:

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

## **6.2 PLAN MONITORING TRACKING AND REPORTING**

The CWRP action plan (Table 1) 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 Electoral Area F. In addition, a comprehensive review/update should take place when there are local changes to community composition, forest health, wildfire risk, etc. Amendments to the existing plan can be conducted if the plan is less than 5 years old. Specific updates should include:

- 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 20 provides an example monitoring plan, tracking, and update summary for the Electoral Area F CWRP. Annual updates should consider renaming the plan version as 1.1, 1.2, 1.3, etc. 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 numbers listed in Table 1. Annual tracking is useful for creating accountability, as well as reporting accomplishments and successes. Summaries of specific measurable outcomes are useful for reporting to decision makers and applying for future funding.

*Table 20. Electoral Area F monitoring, tracking, and update summary.*

<b>Plan Version</b>	<b>Plan Year</b>	<b>Plan Name</b>
<b>1.1</b>	<b>2019</b>	<b>RDNO CWPP Phase 1</b>
<b>1.2</b>	<b>2020</b>	<b>RDNO CWPP Phase 2</b>
<b>2.0</b>	<b>2025</b>	<b>RDNO CWRP – Area B RDNO CWRP – Area C RDNO CWRP – Area D RDNO CWRP – Area E RDNO CWRP – Area F</b>
<b>3.0</b>	<b>TBD</b>	<b>RDNO CWRP Amendments</b>



## 7.0 Appendices

### Appendix A Glossary of Terms

**Area of Interest:** The Area of Interest (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):** Critical infrastructure 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 well-being of the community and the effective functioning of government, or assets identified in a Local Authority Emergency Plan Hazard, Risk and Vulnerability, and Critical Infrastructure assessment.

**Fire Danger:** Fire danger is a general term used to express an assessment of both fixed and changeable factors of the fire environment that determine the ease of ignition, rate of spread, difficulty of control, and fire impact.

**Fire hazard:** Fire hazard can be defined as the following:

- The risk of fire starting, and
- The hazard associated with an industrial activity; and
- If a fire were to start,
  - The volatility of the fire’s behaviour
  - The difficulty of controlling the fire, and
  - The potential threat to values at risk

**Fire Season:** The fire season is the period(s) of the year during which fires are likely to start, spread, and damage values-at-risk sufficient to warrant organized fire suppression. It is a period of the year to set out and commonly referred to in fire prevention legislation.

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



**Wildfire Risk:** Wildfire risk is a term that combines the probability of fire occurrence with the expected impacts from a fire and the associated fire behaviour during the burning.

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

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

## Appendix B Home Ignition Zone

FireSmart describes three Priority Zones around a building, collectively named the Home Ignition Zone (Figure 25) alongside descriptions of what these zones should look like, starting from the edge of a building and moving outwards.

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



**Figure 25. FireSmart Home Ignition Zone, which is comprised of four priority zones, as illustrated in the BC FireSmart Begins at Home Manual<sup>41</sup>.**

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 Immediate or Intermediate Zones). This highlights the importance of community resilience towards wildfire though working together to reduce wildfire hazard, especially within the WUI.

<sup>41</sup> <https://begins-at-home-guide.firesmartbc.ca/>



## Appendix C Additional Resources for FireSmart Disciplines

### Education

- [FireSmart BC website](#)
- [BC Wildfire Prevention website](#)
- [First Nations' Emergency Services Society](#)
- [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](#) (2024)

### Development Considerations

- Additional guidance on land use planning tools and strategies for the Wildland-Urban Interface include the American Planning Association's PAS Report 594 [Planning the Wildland-Urban Interface \(2019\)](#), which 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

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

### Cross-Training

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

### Emergency Planning

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

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



### Vegetation Management

- The BCWS Fire and Fuel Management web page offers a number of tools that support fuel management planning and implementation and can be accessed [here](#).
- Contact your local [BC Wildfire Service Fire Centre](#) office to learn more about, engage and collaborate on Landscape Zone vegetation management planning.
- [FireSmart Guide to Landscaping](#)



## Appendix D In-report Maps

See separate Appendix D CWRP In-report Maps document for more information.



## Appendix E Wildfire Threat Assessments

See separate Appendix E Wildfire Threat Assessment document for more information.

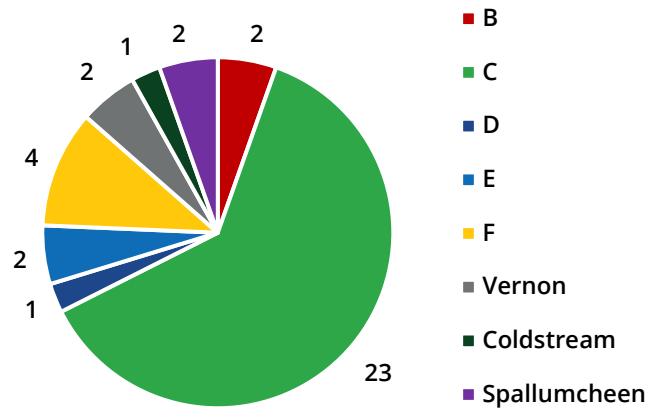


## Appendix F Community Survey Results

### Survey Participation by Electoral Area

Responses came from across the Regional District, with the largest share from **Electoral Area C**. Smaller but meaningful participation came from Areas B, D, E, F, Spallumcheen, SilverStar, Vernon, and Coldstream. This distribution reflects both the population base of Area C and its high level of FireSmart engagement in recent years. It also highlights the need to continue outreach in smaller communities so that all parts of the region are represented in future wildfire planning efforts.

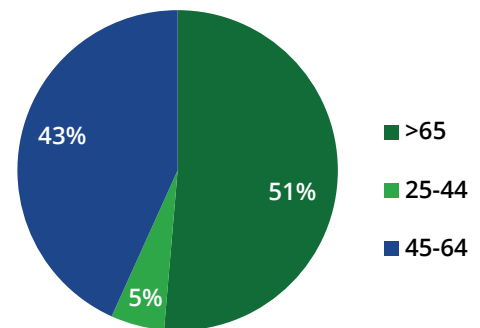
Number of Surveys Per Electoral Area



### Age of Survey Participants

Most participants were **45 years and older**, with the majority being in the **65+** age group. Only a small number of respondents were between 25 and 44. This age distribution is consistent with other wildfire planning surveys, where older residents often have both the time and interest to participate. It also suggests an opportunity to increase engagement with younger households, who may have different needs and perspectives on wildfire preparedness.

Age of Survey Participants

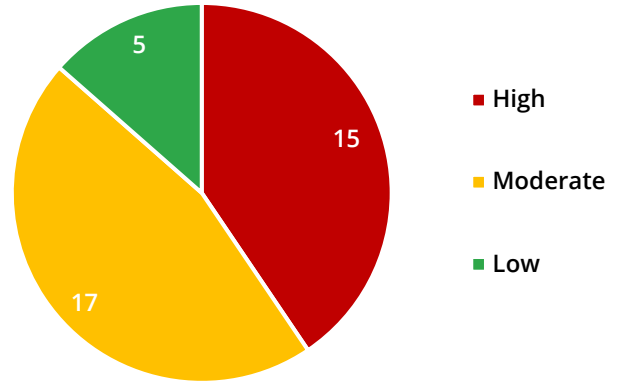




### Perception of Wildfire Risk

When asked about wildfire risk, most respondents rated it as **moderate or high**, with only a few considering it low. This indicates a general recognition across the community that wildfire is a serious concern. Comments from participants often linked this perception to recent fire seasons in the Interior, with some noting that proximity to forested areas or past local fire events shaped their view. These findings suggest that the majority of residents are already receptive to FireSmart messaging and understand the importance of continued mitigation.

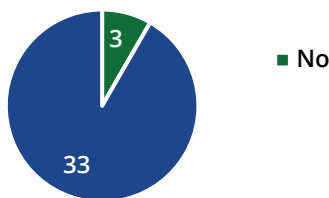
### Perception Risk



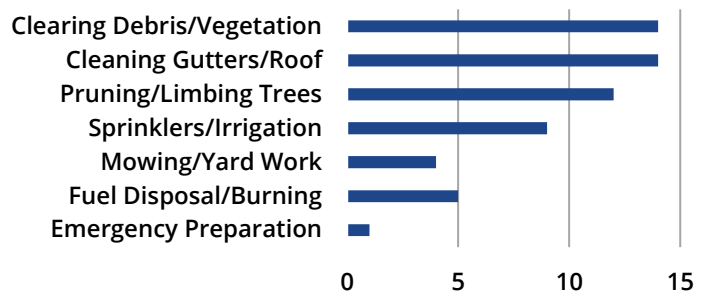
### Wildfire Protection Activities on Private Properties

The majority of survey participants reported undertaking FireSmart practices on their properties. The most common activities included clearing flammable debris, pruning lower branches, cleaning gutters and roofs, and irrigating or using sprinklers in summer. Several respondents highlighted seasonal clean-ups as part of their regular routine. Only a small number indicated they had not taken any wildfire protection measures. This demonstrates that residents recognize the value of proactive fuel reduction at the property level, though continued education and support may help those who have not yet participated.

### Survey Participants Engaged in Wildfire Protection Activities



### Survey Participants Engaged in Wildfire Protection Activities





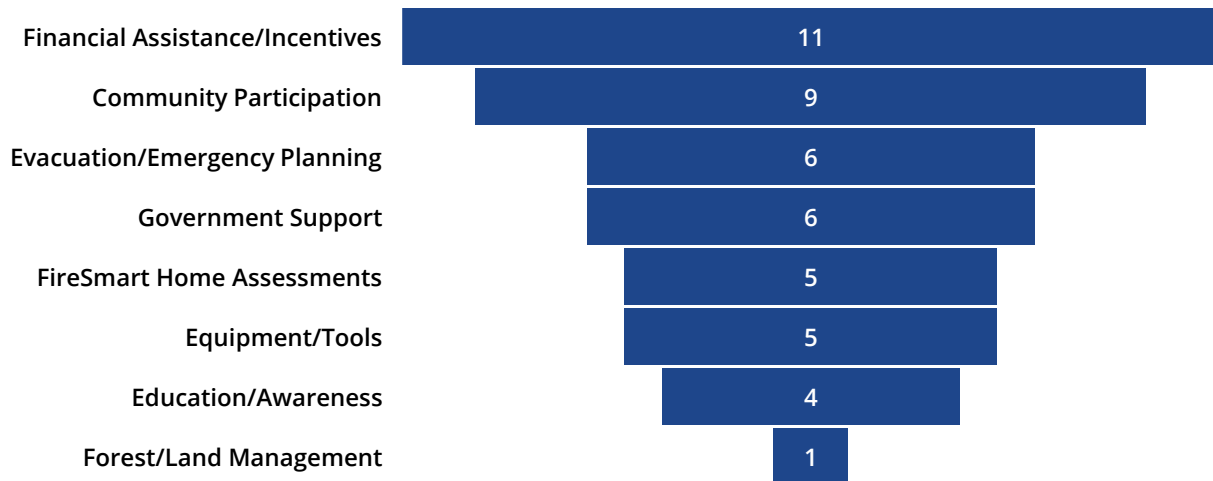
### Actions Completed in the Last 12 Months

When asked about recent actions, the dominant activity was the removal of flammable debris from around homes. Many also reported yard work and vegetation management, such as mowing grass and removing brush. A notable number described conversations with neighbours about safety, reflecting a growing culture of community awareness. A smaller but important group emphasized preparing emergency kits and evacuation plans. These findings show that residents are not only maintaining their properties but also engaging in dialogue and preparedness that extends beyond individual parcels.

### Supports Needed to Advance FireSmart

Residents identified a range of supports required to strengthen wildfire preparedness. The most common request was for financial assistance, rebates, or incentives to help with the costs of mitigation. Many also asked for equipment or disposal options, such as access to chippers or bins. Neighbourhood-level participation and stronger involvement from local agencies were frequently mentioned, alongside a need for clear evacuation planning and communication. Some comments stressed the role of forestry and land management in addressing risks adjacent to communities. Overall, residents want both individual assistance and broader structural support to ensure efforts are effective.

### Requested Supports

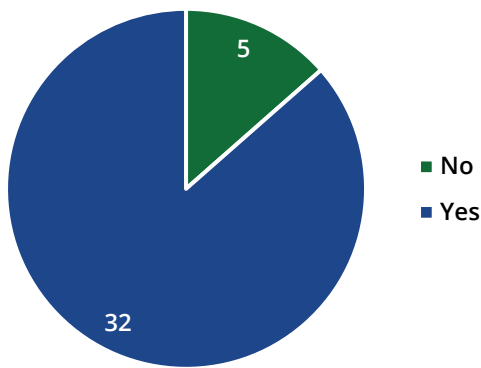




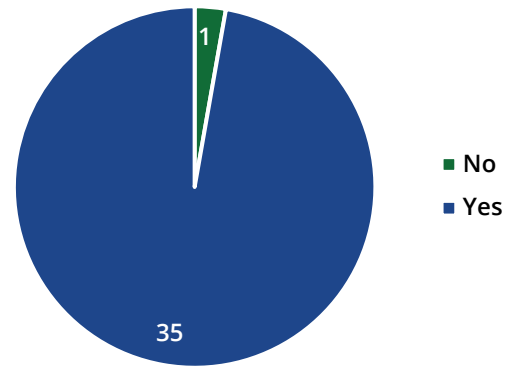
### Awareness and Knowledge

Most participants felt adequately informed about wildfire risk, and a majority knew who to approach with questions. However, a sizeable minority answered “No” to both. Several comments highlighted a desire for more workshops, emotional support during fire season, and more consistent messaging from local government. This feedback suggests that while awareness levels are high, residents still see gaps in communication and would benefit from more proactive outreach.

Participants Familiar with FireSmart



Participants that Understand the Role Wildfire Management Plays

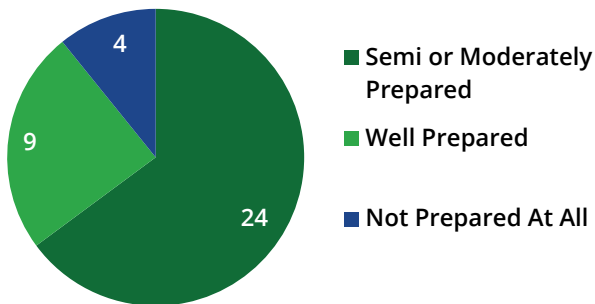




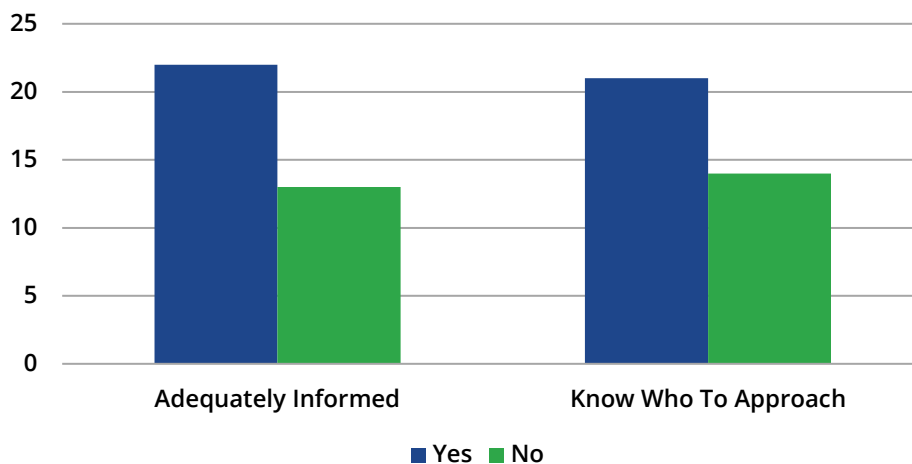
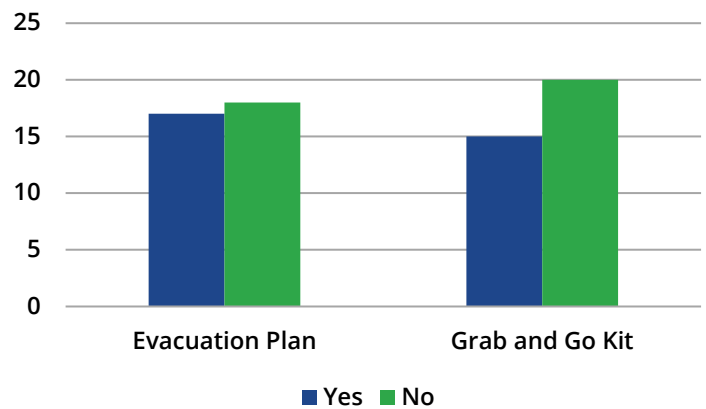
### Preparedness Measures

Survey results show a near even split on emergency preparedness. About half of respondents have an emergency evacuation plan, and fewer than half have a grab-and-go kit. This indicates that while many residents are aware of FireSmart principles, personal preparedness remains inconsistent. Respondents requested clearer evacuation routes and more emphasis on emergency planning at the neighbourhood level. Strengthening preparedness through education, drills, and reminders could improve readiness across the region.

Preparedness Levels



Emergency Planning

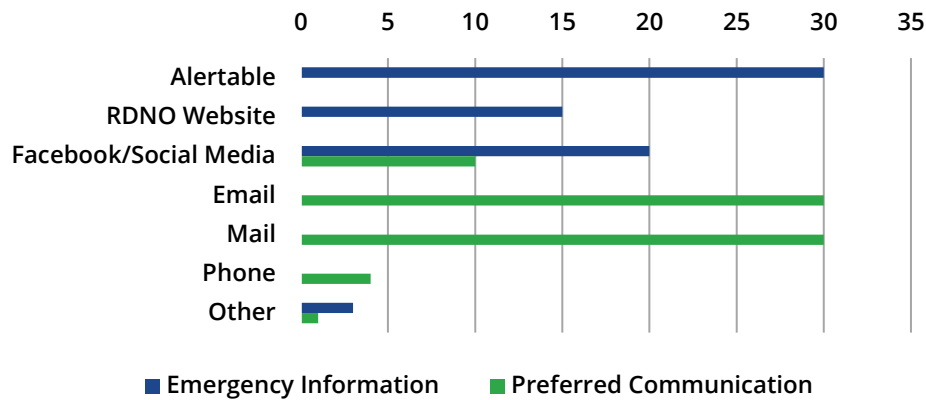




### Emergency Communications

Residents overwhelmingly rely on the **Alertable app**, the RDNO website, and social media (particularly Facebook) to receive emergency information. When asked about preferred communication methods, most identified **email and mail**, followed by social media and phone calls. A small number selected “other.” This shows that digital tools are well-used but should be paired with traditional communication methods to ensure all residents receive timely and accessible updates.

### Communication Sources

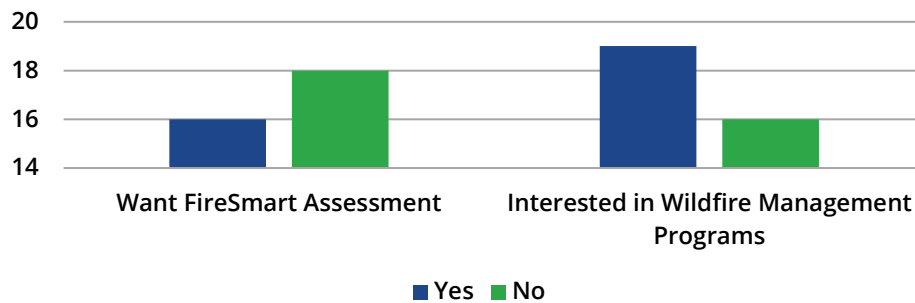




### Interest in FireSmart Assessments and Programs

While many participants expressed interest in FireSmart assessments, nearly as many indicated they were not interested or had already participated. Several comments suggested follow-up on past assessments is needed. Interest in broader wildfire management programs was higher, with more respondents saying “Yes” than “No.” These results suggest that while uptake of individual assessments may plateau, residents are open to engaging in larger-scale initiatives that address both private and community-wide resilience.

### Interest in FireSmart Assessments and Wildfire Programs





## Appendix G Proposed Fuel Treatment Units

See separate Appendix G Proposed Fuel Treatment Unit document for more information.

## Appendix H Examples of FireSmart/Wildfire Bylaws

The following is an example of Drought Use Water Regulations for emergency water preservation purposes.

*Table 21. Example Drought Use Water Regulations.*

Purpose and Scope	Protect firefighting reserves and essential domestic, livestock, and crop-survival needs during drought, while keeping admin light for rural areas.
Triggers (staged)	<p><b>Stage 1 – Advisory:</b> BC Drought Level 2-3 or local indicator met (e.g., streamflow &lt;25th percentile; monitored well drawdown &gt;[X] m).</p> <p><b>Stage 2 – Restrictions:</b> Drought Level 3-4 or streamflow &lt;10th percentile; drawdown &gt;[Y] m.</p> <p><b>Stage 3 – Severe:</b> Drought Level 4; storage below target; tender refill reliability at risk.</p> <p><b>Stage 4 – Critical:</b> Drought Level 5; firefighting reserve at risk. <i>(CAO/water purveyor may declare a higher stage based on local conditions.)</i></p>
Priority of Use (always permitted)	<ul style="list-style-type: none"> <li>• Indoor domestic and health/safety uses.</li> <li>• Fire suppression and emergency operations (exempt at all stages).</li> <li>• Livestock watering and critical crop-survival irrigation (see Agriculture &amp; Livestock).</li> <li>• Essential public services (as authorized).</li> </ul>
Outdoor & non-essential use (by stage)	<p><b>Stage 1:</b> No midday irrigation; no driveway/patio washing; vehicle washing only for safety.</p> <p><b>Stage 2:</b> No lawn irrigation; garden/trees by hand or drip only (max [X] min/day). No filling of pools/hot tubs/pond features.</p> <p><b>Stage 3:</b> Survival watering only (gardens/trees) ≤2 days/week, hand/drip; no pressure washing; community splash pads off.</p> <p><b>Stage 4:</b> Survival watering 1 day/week for perennial food trees/vines only; all other outdoor uses off.</p>
Agriculture & Livestock	<p>Livestock: Allowed at all stages using efficient delivery; encourage trough floats, leak checks.</p> <p>Crops:</p> <ul style="list-style-type: none"> <li>• <b>Stages 1-2:</b> Efficient irrigation allowed; no spray guns between 10am-7pm.</li> </ul>



	<ul style="list-style-type: none"> <li>• <b>Stage 3:</b> Survival irrigation only (orchards/perennials) by drip/micro; annual field crops discouraged unless critical to prevent total loss.</li> <li>• <b>Stage 4:</b> Survival irrigation only by drip/micro at reduced frequency; prioritize perennial stock.</li> </ul> <p>Dust control limited to safety-critical roads with non-potable sources where available.</p>
<p>Sources &amp; drafting sites</p>	<p>Hydrants/dry hydrants/drafting sites: Non-fire use prohibited Stages 2–4.</p> <p>Ponds used for drafting must retain a minimum fire reserve volume ([Z] m<sup>3</sup>) marked with staff gauges; no withdrawals below reserve.</p>
<p>Private wells &amp; small systems</p>	<p>Stage-based voluntary targets for private wells (e.g., 20% reduction at Stage 2; 35% at Stage 3; 50% at Stage 4).</p> <p>Encourage well-sharing for domestic/livestock emergencies via simple neighbour agreements.</p> <p>New soft-starts/pressure settings that protect pump health during low water recommended (not mandated).</p>
<p>Construction &amp; commercial</p>	<p>Standpipe/construction fills allowed Stage 1 only, metered, with backflow prevention; suspended at Stage 2+.</p> <p>Equipment wash only where needed for invasive species control; use minimal volumes.</p>
<p>New landscapes &amp; pools</p>	<p>At Stage 3–4: defer new lawn/sod approvals; allow drought-tolerant, non-spray plantings only; require a basic drought plan (valves/shutoffs/drip layout).</p> <p>Pool/hot-tub fills prohibited Stage 2+ (topping up for liner protection allowed Stage 2–3 if &lt;[X]% volume).</p>



**The following is an example of established guiding principles for Wildfire Protection (City of Kamloops)**

1. Wildfires occur regularly in the natural environment surrounding and within the Kamloops City limits and will continue to occur regardless of the most successful prevention program.
2. In some natural environments, planned prescribed fire (as opposed to wildfire) is desirable and effective in restoring ecological health and reducing the risk of wildfire losses.
3. Losses to wildfire cannot be eliminated; however, they can be significantly reduced with appropriate pre-planning and preparation.
4. Education, engineering, and enforcement are the pillars of wildfire risk reduction.
5. A comprehensive approach involving fuel management, infrastructure and structural design, pre-suppression preparedness, and emergency response must be taken to effectively reduce the risk of wildfire losses.
6. Mitigations must not only be planned for but carried out.
7. Due to the dynamic nature of wildland vegetation and community, ongoing maintenance must occur, and mitigations must be re-evaluated and adapted to changing situations.



**The following is an example of a WI-DPA 1 Page Application Checklist.**

**WI-DPA Applicant Checklist (Example Template)**

Use this one-pager with permit applications located in the Wildland–Urban Interface Development Permit Area (WI-DPA).

**Project info**

Civic address & PID/Roll #	
Applicant / owner name & contact	
Permit type	Building <input type="checkbox"/> Subdivision <input type="checkbox"/> Variance <input type="checkbox"/> Other: _____
Within WI-DPA map (Schedule __)	Yes <input type="checkbox"/> No <input type="checkbox"/> Map ref: _____
If known: site wildfire hazard rating	Low <input type="checkbox"/> Moderate <input type="checkbox"/> High <input type="checkbox"/> Extreme <input type="checkbox"/>

**Submission package**

- Site plan showing buildings, driveways/turn-around, water sources, slopes, and vegetation bands
- 6–10 photos (house, roof, vents/eaves, decks, immediate surroundings, driveway)
- Materials list (roof, siding, soffits, decking, skirting, fences/gates)
- Fuel-reduction sketch (what will be removed/retained)
- Water supply confirmation (hydrant, cistern, dry hydrant/drafting site, other)
- Professional report (if triggered) — RPF/RPBio/other: \_\_\_\_\_

**Access for responders**

- Driveway and turn-around meet local fire-department access standards (width/grade/turning)
- Address visible from road; gates unlockable by responders
- Overhead/roadside vegetation pruned to allow apparatus access

**Water supply**

- Community hydrant available (ID/location: \_\_\_\_\_)
- OR Alternative supply (cistern / dry hydrant / drafting site) with year-round access
- On-site outlets/standpipes (if applicable) noted on plan

**Defensible space (around each principal building)**

- Immediate non-combustible surface zone established (0–1.5 m) — mineral soil, gravel, pavers



- Near-home vegetation managed (1.5–10 m): limb-up trees, remove ladder fuels, separate shrubs from structures
- Extended zone treated (10–30+ m): thin/space trees and manage surface fuels
- Wooden fences/gates do not connect directly to the structure (use a non-combustible break at the wall)

**Building design details**

- Roofing fire-rated (preferred Class A when feasible)
- Eaves/soffits enclosed; gaps sealed
- Vents screened with metal ember-resistant mesh; attic/crawlspace openings protected
- Siding and skirting non-combustible or ignition-resistant; joints/flashing sealed
- Decks/porches: underside screened or sheathed; nothing combustible stored beneath
- Gutters/valleys clear of debris

**Utilities & outbuildings**

- Propane tanks, woodpiles, and outbuildings located away from the home (shown on plan)
- Overhead lines and service entries clear of vegetation

**Construction / operations**

- No burning or hot-works when provincial restrictions apply
- Spark arrestors and extinguishers available during works
- Waste and offcuts removed daily from around structures

**Ongoing maintenance & conditions**

- Owner commits to annual clean-up of immediate zone and gutters/eaves
- If required by approval: simple covenant / owner undertaking attached

**Sign-off**

Applicant declaration: "I confirm the above measures are shown on plans or will be completed before final."

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewer notes / conditions of approval: \_\_\_\_\_

*Tip: Keep this to 1 page. Use owner self-certification with photos and conduct spot audits for higher-risk files.*



**The following is an example of a Wildfire & ecological stewardship covenant.**

**EXAMPLE COVENANT – WILDFIRE & ECOLOGICAL STEWARDSHIP (SHORT FORM)**

Note: Example template only. Adapt with local legal counsel and planning staff.

**PARTIES AND LANDS**

BETWEEN: REGIONAL DISTRICT OF NORTH OKANAGAN (the “Covenantee”)

AND: \_\_\_\_\_ (the “Owner”)

WHEREAS the Owner is the registered owner of lands legally described as: \_\_\_\_\_  
(the “Lands”), commonly known as \_\_\_\_\_ [civic address], PID \_\_\_\_\_.

**RECITALS**

- A. The Regional District seeks to reduce wildfire risk while conserving ecological values on the Lands;
- B. Section 219 of the Land Title Act permits a covenant in favour of a local government respecting the use of land that runs with the land; and
- C. The parties wish to set out wildfire-risk reduction measures and ecological stewardship practices applicable to the Lands.

**1. DEFINITIONS**

“Immediate Zone (Z0)” means the area from 0.0 m to approximately 1.5 m measured horizontally from the outermost projection of each principal building.

“Near-Home Zone (Z1)” means the area from approximately 1.5 m to 10 m from each principal building.

“Extended Zone (Z2)” means the area from approximately 10 m to 30 m (or to the property boundary, if closer).

“Ecologically Sensitive Feature” includes, without limitation, riparian areas, wetlands, rare plant communities, wildlife trees/snags, dens, rookeries, nests, and mapped environmentally sensitive areas.

“Qualified Professional (QP)” means a Registered Professional Forester (RPF), Registered Professional Biologist (RPBio), or other appropriately qualified professional acceptable to the Covenantee.

**2. WILDFIRE RISK REDUCTION – USE AND MAINTENANCE**

The Owner covenants and agrees, at the Owner’s expense, to maintain the Lands in accordance with the following measures:

- Maintain Z0 as a continuous non-combustible surface (e.g., mineral soil, gravel, pavers) around all principal buildings, excluding required stairs/landings.
- Keep roofs, gutters, and eaves free of combustible debris during the local fire season.



- Enclose or screen under-deck areas; do not store combustibles under decks or within Z0.
- In Z1, prune lower branches (generally up to 2 m or 1/3 live crown, whichever is less), separate shrubs from structures, and remove ladder fuels.
- In Z2, thin and manage surface fuels to reduce continuity and ladder fuels; favour fire-resilient species where appropriate and permitted.
- Provide a non-combustible break where wooden fences or gates meet a building (e.g., metal gate or 1.5 m non-combustible section at the wall).
- Store firewood, propane tanks, and other combustible storage a minimum of \_\_\_ m from principal buildings (recommended 3 m or greater).

### **3. ECOLOGICAL STEWARDSHIP – USE AND MAINTENANCE**

The Owner covenants and agrees, at the Owner's expense, to conserve ecological values on the Lands as follows:

- Respect applicable riparian/environmental bylaws and permits; fuel work in these areas must follow permit conditions or written QP guidance.
- Schedule fuel work outside the local primary bird-nesting period (e.g., April 1 to August 31) unless a QP confirms no active nests are present.
- Retain wildlife trees/snags and coarse woody debris where structurally safe and outside Z1; if removal is necessary for safety, replace with habitat features where feasible (e.g., wildlife poles, brush piles) away from buildings.
- Use low-impact methods (hand tools/mechanical) and avoid unnecessary soil disturbance; apply erosion/sediment controls where ground disturbance occurs.
- Control invasive species and re-vegetate disturbed areas promptly with regionally native species.

### **4. ADAPTIVE MANAGEMENT AND CONFLICT RESOLUTION**

Where wildfire measures and ecological objectives appear to conflict, the Owner will engage a QP to propose a site-specific approach that achieves equivalent or better wildfire risk reduction while maintaining ecological protections. The Covenantee may approve such alternative measures in writing, and the approved approach will form part of this covenant.

### **5. PERMITS AND COMPLIANCE**

The Owner must obtain and comply with all required permits and approvals and must comply with applicable laws, bylaws, and Development Permit conditions.

### **6. MONITORING AND REPORTING**

- By June 1 of each year, the Owner will submit a short self-declaration (Schedule C) with date-stamped photos demonstrating compliance with Sections 2 and 3.



- The Covenantee may conduct spot inspections on reasonable notice, not more than once every five (5) years or upon a substantiated complaint.
- On transfer of the Lands, the Owner will provide this covenant to the purchaser and advise the Covenantee of the transfer.

## **7. REMEDIES, INDEMNITY, AND GENERAL**

If the Owner defaults, the Covenantee may require reasonable remediation. The Owner will indemnify the Covenantee from claims arising from the Owner's breach of this covenant. This covenant runs with the Lands and binds successors. It does not grant public access.

## **8. PRIORITY AND REGISTRATION**

The Owner will do all things necessary for registration in the Land Title Office and, where applicable, obtain priority agreements from chargeholders.

### **EXECUTION**

Executed by the parties as of \_\_\_\_\_, 20\_\_\_. Signatures and acknowledgements in Land Title Act form to be appended.

### **SCHEDULE A – PLAN OF LANDS**

[Attach reference plan or legal description map.]

### **SCHEDULE B – WILDFIRE & ECOLOGICAL MANAGEMENT STANDARDS (CHECKLIST)**

The following items must be maintained on an ongoing basis; check applicable measures and annotate site-specific notes.

- Z0 non-combustible surface continuous around structures (width: \_\_\_ m).
- Gutters/eaves clean during fire season (owner maintenance schedule: \_\_\_\_\_).
- Under-deck enclosed/screened; no combustible storage beneath.
- Z1: ladder fuels removed; shrubs separated from walls; lower limbs pruned (target height: \_\_\_ m).
- Z2: surface fuels reduced; tree spacing adjusted to break crown continuity where feasible.
- Fence breaks at structures provided (material/type: \_\_\_\_\_).
- Combustible storage (wood, propane) located  $\geq$  \_\_\_ m from buildings.
- Riparian/ESAs: work per permits/QP guidance; no ground disturbance without erosion control.
- Nesting window respected or QP clearance obtained (date: \_\_\_\_\_).
- Invasive species controlled; disturbed areas re-vegetated with native species.



**SCHEDULE C – ANNUAL OWNER SELF-DECLARATION**

Property: \_\_\_\_\_ PID: \_\_\_\_\_

Owner name: \_\_\_\_\_ Email/Phone: \_\_\_\_\_

Date of inspection: \_\_\_\_\_ Fire season year: \_\_\_\_\_

I confirm the property complies with the measures in Sections 2 and 3 and Schedule B. Photos attached:  Z0  Gutters/Eaves  Deck Underside  Z1  Z2  Ecological features  Water supply.

Owner signature: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewer (if applicable): \_\_\_\_\_ Notes: \_\_\_\_\_