

COMOX VALLEY REGIONAL COMMUNITY WILDFIRE RESILIENCY PLAN



March 10, 2025





COMMUNITY WILDFIRE RESILIENCY PLAN

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- City of Courtenay; Courtenay Fire Department, Parks and Planning Departments
- Town of Comox; Parks and Planning Departments, and Comox Fire Department
- Village of Cumberland; Parks and Planning Departments, and Cumberland Fire Department
- Denman and Hornby Island Fire Departments
- CFB Comox Fire Service
- BC Wildfire Service
- Ministry of Forests
- BC Parks
- Island Health and Health Emergency Management B.C.
- First Nations' Emergency Services Society
- Cumberland Community Forest Society
- Comox Valley Land Trust
- BC Hydro
- Fortis BC

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Acronyms and Definitions

ALR	Agricultural Land Reserve	Provincial zone in BC where agriculture is recognized as the primary use.
AOI	Area of Interest	The AOI is the geographic scope of the CWRP- In this report is the Comox Valley Regional District boundary.
AOP	Area of High Potential	Areas of high archeological potential.
BC	British Columbia	-
BCWS	British Columbia Wildfire Service	British Columbia’s service to manage wildfires through a combination of wildfire prevention, mitigation, and suppression strategies, on both Crown and private lands outside of organized areas such as municipalities or regional districts.
BEC	Biogeoclimatic Ecosystem Classification	Within ecosystems are biogeoclimatic units that integrate climatic, vegetation and site classifications at a regional level.
CDC	Conservation Data Centre	Centralized, computer assisted inventory and information system about rare and endangered species and ecosystems.
CHIP	Cultural Heritage Investigation Permit	Permit required for all projects taking place within registered archaeological sites and the K’ómoks First Nation designated AOPs within their core territory.
CI	Critical Infrastructure	Assets that are essential to the health, safety, security or economic wellbeing of the community and the effective functioning of government, or assets identified in a local emergency management plan.
CRI	Community Resiliency Investment	Program with aim to reduce the risk and impact of wildfires to communities in BC.
CVEM	Comox Valley Emergency Management	A regional service administered by the Comox Valley Regional District in partnership with K’ómoks, Comox, Courtenay, and Cumberland to support and coordinate emergency management to the Comox Valley.
CVFSR	Comox Valley Regional FireSmart Resiliency Committee	A multi-disciplinary, multi-agency, collaborative group that helps to steer messaging and opportunities to coordinate, plan and share information on how to successfully implement the seven FireSmart disciplines, within a defined geographical area.
CVRD	Comox Valley Regional District	The CVRD is a federation of three electoral areas: <ul style="list-style-type: none"> - Electoral Area A – (Baynes Sound - Denman/Hornby Islands) - Electoral Area B (Lazo North) - Electoral Area C (Puntledge - Black Creek) And three municipalities: <ul style="list-style-type: none"> - City of Courtenay - Town of Comox - Village of Cumberland

CWRP	Community Wildfire Resiliency Plans	Strategic document that helps communities assess wildfire risks and implement measures to reduce threats through fuel management, emergency preparedness, and public education. Ensures a proactive, community-driven approach to wildfire mitigation and resilience.
CWPP	Community Wildfire Protection Plans	Precursor to CWRP.
DPA	Development Permit Area	Tool in property development process to protect natural environment, minimize impacts from potentially hazardous conditions, reduce greenhouse gas emissions, etc.
EDMA	Emergency and Disaster Management Act	Legislative framework for managing emergencies and disasters within BC. Includes holistic four-phase approach to emergency management: mitigation, preparation, response, and recovery.
EOC	Emergency Operations Centre	Central command and control facility that coordinates and supports emergency response and recovery efforts.
FBP	Fire Behaviour Prediction System	Estimates how a fire is likely to behave under specific conditions (terrain, weather, fuel types, and firefighting efforts).
FCFS	FireSmart Community Funding and Supports	Provides funding to local governments and First Nations in BC to increase resiliency within their community by undertaking community-based FireSmart planning.
	FireSmart Landscaping	Is the removal, reduction, or conversion of flammable plants (such as landscaping for residential properties, parks, open spaces, and critical infrastructure) to create more fire-resistant areas in FireSmart Zones.
	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.
FNESS	First Nations' Emergency Services Society	A charitable non-profit organization dedicated to assisting First Nations in developing and sustaining safer and healthier communities.
HA	Hectare	A metric unit of square measure, equal to 10,000 m ² .
HIZ	Home Ignition Zone	Area within 30 metres of home or structures. Maintenance on HIZ can decrease potential damage to home from a fire.
HRVA	Hazard, Risk, and Vulnerability Analysis	An assessment that aids community in making risk-based choices to address vulnerabilities, minimize hazards, and prepare for response and recovery from a hazardous event.
IER	Indigenous Engagement Requirements	One key aspect of EDMA is the formal recognition of the rights of First Nations as decision-makers in emergency management. Indigenous communities must have a significant role in the planning and response phases of emergencies.

	Interest Holder	Any individual, group, or organization that has an interest in or is affected by a planning project, policy, or development within a community.
LFR	Local Fire Smart Representative	Trained individual who serves as a community liaison for the FireSmart program.
MoF	Ministry of Forests	Government agency in BC that is responsible for supporting the sustainable and competitive future for BC's forestry sector.
NEPP	Neighbourhood Emergency Preparedness Program	Comox Valley Emergency Management offers a Neighbourhood Emergency Preparedness Program (NEPP) and Guide. This program and guide provides important tools and guidance to support communities to become better prepared in case of an emergency.
PMFL	Private Managed Forest Land	Managed forest land under the Assessment Act with a management commitment.
PSTA	Provincial Strategic Threat Assessment	Wildfire risk analysis tool used to identify areas at higher risk of wildfire. It combines data on fire history, vegetation, topography, climate, and human infrastructure to help guide wildfire prevention, mitigation, and response efforts across BC.
	Regional Partners	Partners for the development of the CWRP, includes K'ómoks First Nation, City of Courtenay, Town of Comox, Village of Cumberland, and the three electoral areas, which includes Denman and Hornby Islands.
OCP	Official Community Plan	Comprehensive policy document to guide long-term land use and development.
UBCM	Union of British Columbia Municipalities	Founded in 1905, an organization that represents and advocates for local governments in BC.
VAR	Values at Risk	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	<ul style="list-style-type: none"> - Likelihood of a fire occurring - Associated fire behavior - Impacts of the fire (consequence)
WRR	Wildfire Risk Reduction	Strategies and actions aimed at minimizing the likelihood and impact of wildfires on communities, ecosystems, and resources.
	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.
WUI	Wildland-Urban Interface	The WUI is defined as any area where combustible forest fuel is found adjacent to homes, farm structures, or other outbuildings.

Executive Summary

The purpose of this project is to develop a comprehensive regional Community Wildfire Resiliency Plan (CWRP) for the Comox Valley which includes K'ómoks First Nation (K'ómoks), City of Courtenay (Courtenay), Town of Comox (Comox), Village of Cumberland (Cumberland), and the three Regional District electoral areas, which includes Hornby and Denman islands. The Comox Valley Regional District (CVRD) provides administrative support on behalf of the partners named above, hereafter to be referred to as the Regional Partners.

This CWRP assesses the Regional Partner's risks related to wildfire and identifies opportunities for education and operational planning to ensure wildfire resiliency through the seven FireSmart disciplines (Education, Legislation, Cross Training, Development Considerations, Interagency Cooperation, Emergency Planning, and Vegetation Management), as well as identify areas to be evaluated and prioritized for fuel threat reduction activities.

Collaboration among communities, emergency responders, and interest holders strengthens community resilience by integrating shared resources, knowledge, and coordinated efforts to prevent, respond to, and mitigate the impacts of wildfires. As such, this CWRP was informed by completing an extensive engagement process with a broad range of community interest holders, industries, utility providers, and government agencies.

The revised requirements of CWRPs to include resiliency, provides an opportunity for the plan to be responsive to the needs of the Regional Partners in consideration of the complexity of land ownership of urban forests on Vancouver Island. In this case, it includes an assessment of the municipal and regional district parks, including K'ómoks treaty settlement lands, and provides a multi-disciplinary framework for the Regional Partners to move forward to prioritize wildfire risk reduction activities.

The revised requirements do not include a direct connection between the new Emergency and Disaster Management Act (EDMA) and Indigenous Engagement Requirements (IER) with respect to the current CWRP process and wildfire planning by the British Columbia Wildfire Service (BCWS). In this context, the primary challenges in developing a comprehensive regional CWRP include:

- **Fragmented Land Ownership:** Land ownership in the Comox Valley is complex and fragmented. Most of the forests in the Wildland-Urban Interface (WUI) are largely composed of privately owned land, including private managed forest land, conservation and covenant lands, K'ómoks treaty settlement lands and private or Crown tenured woodlots, with minimal Crown land. EDMA requires coordinated emergency response across various land types and jurisdictions, and fragmented ownership complicates this process.

For example, Private Managed Forest Land (PMFL) comprises 17.40% of the total area in the WUI, with no available data to assess the local wildfire threat. The Provincial mandate for PMFL requires forest managers to ensure their lands are managed sustainably, but there is a need for these management practices to adjust to meet current and forecasted threats such as increasing wildfire risks. There is a pressing need for provincially mandated

information sharing and advance planning between PMFL, local governments, and emergency management agencies to better assess and mitigate these wildfire threats to critical infrastructure, natural assets and settlement areas.

- **Diverse and Non-linear Forest Stands:** Forests in the WUI are not linearly defined and often have various stand types (i.e., age, densities etc.) in one land parcel. Also, coastal forest ecosystems host a range of diverse species and habitats which is reflected in the diverse management objectives of the parcels. Under the EDMA, comprehensive risk assessments must consider the variety of forest ecosystems and their varying vulnerability to wildfire, ensuring that mitigation strategies are adaptable to these diverse stands. The IER emphasizes the importance of incorporating Indigenous ecological knowledge when assessing the impacts of wildfire on cultural lands and habitats, ensuring that Indigenous perspectives guide the development of risk reduction strategies.
- **Template / Process Complexities:** In accordance with the CWRP guidance document and template, the structure and dense reporting requirements may not be effective in communicating high-level overviews of actions to the communities or emergency management teams. The EDMA requires that emergency plans be clear, accessible, and easily understandable for all stakeholders, ensuring swift action during a wildfire event. Simplifying reporting templates and leveraging digital platforms would improve communication efficiency. The IER also calls for inclusive, user-friendly communication methods that support plain language and has had engagement with Indigenous communities, ensuring that they can fully understand and contribute to wildfire preparedness efforts. Also, the necessity to create detailed maps that require large scale printing could be streamlined with a central online, accessible mapping portal. This aligns with EDMA's emphasis on timely, accurate information sharing to enhance decision-making during emergencies.
- **Additional Costs to Communities:** The findings and recommendations from the comprehensive report are not all eligible grant-funded initiatives. Even with funding, the Regional Partners are still responsible for internally recovering costs to address deficits of the initiatives. The EDMA highlights the need for sustainable funding to support long-term disaster preparedness and response efforts. This includes ensuring the financial capacity to maintain FireSmart initiatives and the staffing required for effective risk reduction. Additionally, the IER underscores the necessity of providing sufficient funding and resources for Indigenous communities to engage in wildfire mitigation and emergency management, ensuring they are full participants in disaster risk reduction efforts.

This CWRP has many findings and recommendations; however, it is suggested that the following initiatives be actioned that encompass several of them:

- Increase communities' capacity and understanding through education of the increasing real risk of wildfire to coastal communities due to climate change.
- Assess and prioritize fuel threat reduction activities in identified potential treatment units.

- Decide upon and socialize terminology in the communities to better describe the outcome of fuel treatments in the common forest types in the communities (e.g., stand tending), and create demonstration forests and public education campaigns (i.e., what does it mean when BCWS says it's safe?).
- Foster greater collaboration within and across administrative boundaries to facilitate inter-agency and organizations data sharing, preparedness, response and recovery.
- Continue to pursue better collaborative partnerships with Private Managed Forest Land Holders, Land Trusts / Conservancies, and woodlots to gain a complete picture of the wildfire risk environment in the Comox Valley.
- Consider the development of multi-year staffing plan and funding to support sustainable delivery of programs designed to educate, reduce and mitigate wildfire risk (e.g., through granting processes).

Action items are provided in Table 1, with further details provided in Section 5.

Table 1: Action Plan Table.

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
Education (Section 5.1)							
Objective: Increase the transparency of the FireSmart Program.							
1	High	Create regular updates and annual reports for the regional FireSmart Program activities.	CVFSR, CVEM	Annual	Funding, CVRD staff support time. Report template created.	Annual report created.	Provided to the Regional Partner's for distribution.
Objective: Continue, increase and align public FireSmart Program Awareness campaigns.							
2	Moderate	Create aligned messaging and links to be used on Regional Partner's and local Fire Department webpages, and other social media.	CVEM supported by CVRD Corporate Communications	1-2 years	CVFSR committee Regional Partners and their teams' Communication staff time.	Aligned and updated FireSmart messaging on websites.	K'ómoks is revising their website in 2025. Consideration for 2025/2026 CRI Grant.
3	Moderate	Increase the number of FireSmart events hosted, organized or supported.	CVEM EM Technician, Fire Departments, FireSmart Plant and Landscape Specialist	Annual	Regional Partners and Fire Departments staff time. FireSmart materials for distribution.	1 additional event every year for each Regional Partners.	This target will reach a capacity for the number of events that are feasible in a year, dependent on the available resources. Consideration for 2025/2026 CRI Grant.
4	Moderate	Develop terminology/ concept that best emphasizes the nature of fuel treatments on the Island that can be better understood by the public. To be incorporated into education campaigns, including signage, social media and linked to location based treated areas.	CVFSR, FireSmart Coordinator & CVEM EM Technician	1-5 years	CVFSR and Regional Partners Communication staff time. Aligned messaging and sign template.	Aligned messaging created and informative signage posted.	This will also improve public perspectives regarding FireSmart activities within the HIZ. Will need to work directly with MoF and FireSmart BC to capture the intent of fuel reduction treatments and FireSmart principles in risk mitigation.

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
5	Low	Develop a public survey to assess the awareness of the FireSmart Program and CVFSR activities.	CV Emergency Management	3-5 years	Regional Partners Communications staff time.	Survey(s) completed.	Further actions should be developed as informed by the survey results. And to record/track for knowledge holding.
Legislation and Planning (Section 5.2)							
Objective: Align burning restrictions and communications.							
6	Moderate	Review existing fire service by-laws and align burning restrictions and permit requirements.	CV Regional Fire Chiefs	3-5 years	Funding, Regional Partners and Fire Departments and Bylaw staff time. Legal review and adoption.	By-laws updated.	To the best extent possible There may be community specific factors requiring different requirements.
7	Moderate	Continue to utilize/ align messaging and links to be used on Regional Partner's and local Fire Department webpages, and other social media, regarding the local burning and high-risk activity requirements.	CVEM with support from CVRD Corporate Communications	1-2 years	Funding, CVFSR and Regional Partners Communication staff time.	Aligned and maintained messaging on websites.	This work has already been initiated. Websites should be continually updated with the most current information. Consideration for 2025/2026 CRI Grant.
8	Low	Collaborate with BCWS to develop joint messaging that highlights local requirements when bans are lifted.	CV Emergency Management and CV Fire Chiefs.	3-5 years	Funding, CVFSR and Regional Partners Communication staff time.	Joint messaging released.	Request that BCWS provides notification before ban is lifted to run parallel messaging.
Objective: Include wildfire resiliency and risk reduction actions, including FireSmart principles, in current and future by-laws and plans.							
9	Moderate	Host targeted information sessions and/ or distribute FireSmart materials to inform staff in relevant departments	CVEM and CVEM EM Technician, Plant	1-2 years	CVFSR, Regional Partners LFRs, Communication staff time.	Information sessions held for each	Information should be provided to new hires as well. Consideration for 2025/2026 CRI Grant.

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
		about integrating FireSmart principles into planning.	and Landscape Specialist		FireSmart materials for distribution.	Regional Partner.	
10	Moderate	Revise existing fire service by-laws to include the implementation of wildfire resiliency actions (i.e., debris management and public area closures).	CV Regional Fire Chief	1-3 years	Regional Partners and Fire Departments staff time. Legal review.	By-laws updated.	Cumberland by-law can be used as an example, with consideration for undeveloped properties. Consideration for 2025/2026 CRI Grant.
11	Low	Review of all applicable current plans and bylaws (i.e., tree removal) sufficient to mitigate wildland interface fire hazards and to include FireSmart terminology.	Regional Partners	1-5 years	Regional Partners and Fire Departments staff time. Consultant.	List of recommended updates completed.	This should be done in collaboration with a qualified wildfire professional. Consideration for 2025/2026 CRI Grant.
12	Low	Develop watershed plans for smaller watershed and/or consider creating a Drinking Water and Watershed Protection Program.	Regional Watershed working and/or emergency preparedness committee	>5 years	Funding, CVEM and Regional Partners support with staff time. Consultant.	Plans complete or program in place.	Will have to be in collaboration with PMLFs. Will impact workplans and require budget consideration or access to grant funding.
Objective: Incorporate FireSmart landscaping and invasive species management in current and future by-laws and plans.							
13	High	Create a list of preferred local FireSmart plants to inform plans, by-laws, landscaping and developments.	Plant and Landscape Specialist	1-2 years	Consultant.	List completed.	List should specific a review period. Consideration for 2025/2026 CRI Grant.
14	Low	Consider standardizing and incorporating a list of noxious weeds in applicable plans, bylaws and projects.	Regional Partners with support from CVRD Parks	3-5 years	Regional Partners staff time, Plant and Landscape	Regional Partners consider CVRD	There may be community specific species requiring consideration.

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
					Specialist and Consultant.	noxious weed list in planning.	
15	Moderate	Conduct public education campaigns regarding the preferred FireSmart plants.	CV Emergency Management, Plant and Landscape Specialist	2-3 years	CVFSR and Regional Partners Communication staff time.	Information on websites and social media.	Campaign could be paired with information regarding noxious weeds.
16	Low	Initiate the FireSmart Plant Program.	CVEM, Plant and Landscape Specialist	>5 years	CVEM EM Technician. FireSmart materials to share.	Program initiated at one nursery.	Subject to the CRI funding at the time of implementation.
Development Considerations (Section 5.3)							
Objective: Review and revise Community Plans and create Wildfire Development Permit Areas.							
17	Moderate	Establish aligned Wildfire Development Permit Areas and revise Community plans to include FireSmart Criteria for developments.	Regional Partners	>5 years	Regional Partners and Fire Departments staff time. Legal review.	Wildfire DPAs established and community plans revised.	Detailed recommendations for each Regional Partner are provided in Section 5.3.
18	High	Create standardized Terms of Reference for required wildfire risk assessment reports in rural electoral areas.	CVRD Planning Department	1-2 years	Funding, CVRD staff time, Consultant.	Terms of Reference created.	Update the document if / when Wildfire DPAs are established.
19	Moderate	Complete wildfire exposure mapping.	CVEM	3-5 years	Funding, CVRD and Regional Partners staff time, Consultant to collaborate on CV wide mapping.	Exposure mapping complete.	This mapping can be used to inform DPA development.
Objective: Inventory and review conservation area plans.							

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
20	Moderate	Develop a GIS spatial inventory of all covenant- lands within the Regional District.	CVRD GIS Department	1-2 years	Funding, CVRD GIS Department time.	Inventory layer complete.	Will require collaboration with conservancy holders/managers. Requires implementation into departments workplans and staffing budgets
21	Low	In collaboration with conservancy holders/managers review conservation land titles to determine if works related to wildfire prevention can be permitted.	CVEM EM Technician	4-5 years	Funding, CVEM staff time, Consultant.		Review should include a field component to better understand the conservation objectives.
Interagency Cooperation (Section 5.4)							
Objective: Continue the Regional CVFSR Committee and initiatives.							
22	High	Continued support for maintaining the regional CVFSR committee.	CVEM EM Technician	Annual	CVFSR Committee Chair and CVRD Admin Support staff time.	Monthly meetings completed.	Support planning meetings for CVFSR and Subcommittees. Consideration for 2025/2026 CRI Grant.
23	Low	Attend FSR meetings at adjacent Regional Districts.	CVFSR Representative	Annual	CVSR time.	Meetings are attended annually.	Attendees should rotate. Consideration for 2025/2026 CRI Grant.
24	High	Continue to attend the Wildfire Resiliency and Training Summit.	CVFSR	Annual	Time for staff attending.	Four participants attend annually.	Attendees should rotate. Additional attendees should attend if funding is available from FireSmart BC. Consideration for 2025/2026 CRI Grant.

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
25	High	Establish a monitoring program for the implementation of these action items with a routine status review by the CVFSR.	CVEM EM Technician	Annual	CVEM EM Technician time.	Monitoring program in place.	Creating a tracking spreadsheet that helps record the progress of the action items. Consideration for 2025/2026 CRI Grant.
Objective: Continue to foster collaboration, information sharing and response planning with other agencies and Landowners.							
26	High	Collaborate with MoFs WRR Coordinators or FNESS to explore joint projects and wildfire risk reduction funding opportunities.	CVFSR Committee appointed representatives	2 years	CVFSR time.	Joint WRR project complete.	MoF WRR Coordinators/ FNESS should be engaged during funding planning.
27	High	Coordinate proactive collaboration with BCWS to provide information sharing of values at risk and to pre-plan wildfire strategies and firebreaks.	CVEM, CVFSR Committee - Fire Chiefs	2 years	Funding, CVSR and Regional Partners staff time.	BCWS GIS layer updated with values at risk, wildfire strategies pre-planned.	Priority is for Denman and Hornby Islands with the Mid Island Fire Zone. Also to map out the coal tailings areas in Cumberland. Consideration for 2025/2026 CRI Grant.
28	Moderate	Coordinate joint training exercises with BCWS to build collaboration and familiarity with the terrain and forest types in the AOI.	CVEM, CVFSR Committee - Fire Chiefs	1-5 years	Funding, Regional Partners and Fire Departments staff time.	2 exercises completed in 5 years.	Priority is for Denman and Hornby Islands and the Comox Lake Watershed. Consideration for 2025/2026 CRI Grant.
29	Moderate	Complete a simulated emergency response exercise involving an airplane crash, with CFB Comox.	CVEM	2-3 years	Funding, Regional Partners and Fire Departments staff time.	Exercise complete.	Lessons learned report should highlight communication issues, if any. Consideration for 2025/2026 CRI Grant.

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
30	High	Support the CFB Comox Fire service in advocating funding fuel reduction treatments on the airport and the barracks neighbourhood forest.	CVEM	Annual	CVEM time.	Communications supported.	Any completed treatments on forested stands should be completed with a prescription by a qualified professional.
31	Low	Continue collaborating with Telus and BC Hydro on joint training exercises.	CVEM	1-5 years	Funding, Regional Partners and Fire Departments staff time.	2 exercises completed in 5 years.	Priority should be rural areas adjacent to forest lands.
32	High	Request that BC Parks complete updated local wildfire threat assessments and request results of the WRR reports from MoF, when available.	CVEM, CVFSR Committee - Fire Chiefs	1-2 years	Funding, CVFSR Committee, LFR(s) time.	BC Parks Assessment complete or WRRs reviewed.	Priority should be for Parks on Denman and Hornby Islands.
33	High	Continue to request collaboration from agencies that are not responding to requests to collaborate.	CVEM	Ongoing	Funding, CVEM staff time.	Meaningful engagement completed.	Examples include BC Ferries and Emergency Management and Climate Readiness.
34	High	Continue to request PMFLs to actively engage and share information.	CVEM	Ongoing	Funding, CV Emergency Management staff time, Consultant.	Meaningful engagement completed.	More information is needed to understand the wildfire threat in the WUI.

Cross-training (Section 5.5)

Objective: Continue the support of FireSmart **staff** positions and cross-training opportunities.

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
35	High	Development of a multi-year core staffing plan to support sustainable delivery of FireSmart programs designed to lower and mitigate wildfire risk.	CVEM	2 years	Regional Partners and CVEM staff time.	Multi-year staffing plan in place with core funding program.	FCFS-CRI to provide sustainable core funding.
36	High	Continue with providing cross training opportunities to Regional Partner Staff and emergency responders.	CVEM	Annual	CVEM to complete a training needs assessment.	At least one training exercise completed a year.	Rural area responders and operations staff should be targeted for additional training. Consideration for 2025/2026 CRI Grant.
37	High	Continue with providing LFR training to increase capacity for HIZ and critical infrastructure assessments.	CVEM and CVFSR Committee	Annual	FireSmart Coordinator to create a list of LFRs, Fire Departments to provide staff.	Additional trained LFR's per year.	The completion of critical infrastructure assessments is a priority. Consideration for 2025/2026 CRI Grant.
Emergency Planning (Section 5.6)							
Objective: Develop an aligned list of critical Infrastructure.							
38	High	Create one aligned list of critical infrastructure and make data available in a spatial format.	CVEM	1-2 year	Funding, Regional Partners to provide lists to combine into one, available on CVRD iMap.	List complete and GIS layer created.	Dependent on the release of provincial regulations or guidance documents. List should include priorities for assessments.
Vegetation and Fuels Management (Section 5.7)							
Objective: Expand the FireSmart Landscaping (Residential and Critical Infrastructure) Programs.							

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
39	High	Increase the number of HIZ assessments completed and FireSmart recognized neighbourhoods.	Fire Departments and LFRs	Annual	Fire Department support from their LFRs and CVEM EM Technician time to track completed assessments.	5% increase in HIZ assessments per year.	Target neighbourhoods adjacent to larger tracts of forests and/ or have constraints related to evacuation. Consideration for 2025/2026 CRI Grant.
40	Moderate	Conduct a FireSmart Critical Infrastructure Hazard Assessments, prioritizing the Fire Department Buildings.	Fire Chiefs/ Departments	Annual	The aligned list of critical infrastructure with priorities for assessments. Fire Department support for LFRs time. CVEM EM Technician to track completed assessments.	2 assessments completed per year.	If the aligned list is not available, the assessments and tracking for CVFS to begin with the CVEM EM Technician until sustainable core funding for staff positions is available. Consideration for 2025/2026 CRI Grant.
41	Moderate	Conduct mitigation actions identified in the Critical Infrastructure Hazard Assessments and install FireSmart signage.	Fire Departments support from CVEM	Annual	Fire Department support for LFRs time and for Fire Department Buildings. Regional Partner support for their owned/managed building.	1 critical infrastructure building completed/ year	Additional building should be completed per year as resources permit.
42	High	Continue with the chipping program.	Fire Departments/ Regional Partners	Annual	Fire Department resources to coordinate chipping events.	Program runs annually.	Consider expanding the program (spring and fall chipping events).

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
					Supported by CVEM/CVRD admin for tracking and invoicing.		Consideration for 2025/2026 CRI Grant.
Objective: Explore the FireSmart Cultural Sites and Green Spaces Program.							
43	Low	Develop a list of green spaces and cultural sites to be assessed.	Regional Partners Parks or Archaeological Departments	2-3 years	Regional Partners Parks and CVRD Regional Parks Service and/or Archaeological Departments to develop the lists.	List of sites and spaces developed.	K'ómoks cultural sites list will not be shared.
44	Low	Complete assessments and develop a plan for completing the activities and maintaining the spaces.	Regional Partners Parks or Archaeological Departments	3-4 years	Consultant to complete the assessment. Regional Partners Parks or Archaeological Departments to develop the plan.	Assessments complete. Plan developed to prioritize treatments.	K'ómoks cultural sites list will not be shared. Consideration for 2025/2026 CRI Grant.
45	Low	Complete fuel and vegetation management and other actions identified in the assessments.	Regional Partners Parks or Archaeological Departments	Annually (after year 4)	Regional Partners Parks or Archaeological Departments to assign resources to complete the work. CVEM EM Technician to tracking programs.	Mitigate 2 spaces per year.	Work with consultants and Register Professional Forester to identify and propose areas. In public spaces, FireSmart signage should be installed.
Objective: Review and prioritize identified treatment units using a multidisciplinary approach.							

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
46	High	Coordinate a multidisciplinary team to review the management objectives of the treatment units in the field.	CVFSR and CVEM	As soon as possible.	Consultant, Regional Partners, Fire departments, land managers and provincial representative time.	Schedule created for team field visits.	Consultant to facilitate the plan development and tracking of information. Consideration for 2025/2026 CRI Grant.
47	High	Complete field visits to prioritize treatment units and identify the wildlife risk reduction activities and demonstration forests.	CVEM	As soon as possible.	Consultant, Regional Partners, Fire departments, land managers and provincial representative time.	Priority list completed.	Consultant to facilitate the field visits and tracking of information. Consideration for 2025/2026 CRI Grant.
Objective: Create a 5-yr plan to implement wildfire risk reduction activities.							
48	High	Create a 5-year plan to implement wildfire risk reduction activities, including timelines and budgets/ funding sources.	CVFSR Committee, Regional Partners	1 year	Consultant to facilitate plan development, CVFSR reps and CVEM staff time.	5-year plan complete.	Requires the priority list to be completed. Plan should include SMART Criteria. Consideration for 2025/2026 CRI Grant.
Objective: Develop prescriptions treatment units and complete other wildlife risk reduction activities.							
49	High	Develop prescriptions for the identified treatment units in the 5-year plan.	Consultant	1-5 years	Consultant	All prescriptions are completed in 5-years.	Consideration for 2025/2026 CRI Grant.
50	Moderate	Complete other wildfire risk reduction activities (e.g., signage, removal of invasive species).	Regional Partners Parks, or other applicable, Departments	1-5 years	Regional Partners Parks, or other applicable, Departments time. Funding for invasives removal.	2 per year	Includes activities not related to treatments. Consideration for 2025/2026 CRI Grant.

Item	Priority	Action	Lead(s)	Time frame	Resources Required	Metric for Success	Notes
Objective: Implement fuel reduction treatments and develop a monitoring plan							
51	High	Complete the fuel management treatments, as prescribed according to the 5-year plan.	Contractor	1-5 years	Consultant support project management of Contractor work.	1 per year	Prioritize sites selected to be demonstration forests. Consideration for 2025/2026 CRI Grant.
52	Moderate	Develop a monitoring and maintenance plan for completed fuel reduction treatments.	Regional Partners Parks, or other applicable, Department	> 5 years	Funding, Consultant, Regional Partners Parks, or other applicable, Departments time.	Monitoring plan completed.	Plan should include SMART Criteria.

1. Introduction

After the devastating wildfires in 2003, Community Wildfire Protection Plans (CWPP) were introduced as the primary wildfire risk reduction planning mechanism for BC communities. Recognizing that a comprehensive approach toward wildfire, including risk reduction and resiliency measures, is essential, the CWPPs evolved into CWRPs¹. The flexibility in the evolution of the requirements of the CWRP provides opportunity to be responsive to the individual needs of communities and to cultivate resiliency thinking to adapt to future climate conditions.

For example, the devastating wildfires that struck Southern California in January 2025, igniting over 16,188 hectares and causing significant destruction highlights the urgent need for comprehensive wildfire risk mitigation strategies.² The challenges faced by California, including the impact of climate change on wildfire behavior and the necessity for coordinated emergency responses, serve as a cautionary tale for BC. They emphasize the importance of integrating FireSmart principles into community planning and being proactive with response measures.

Developing wildfire resilience involves balancing ecological priorities, such as preserving habitats, with human needs like safeguarding homes, infrastructure, and recreational areas. Assessing wildfire resiliency requires a multi-faceted approach to identify and understand the region's specific risks and vulnerabilities to wildfire.

In 2024, Strategic Natural Resource Consultants Inc. was engaged to develop a CWRP for the communities in the Comox Valley. Given that wildfires often transcend administrative boundaries, a collaborative regional approach was used to develop this plan.

This CWRP is informed by the 2018 Community Wildfire Protection Plan for the CVRD and K'ómoks, which did not include all the Regional Partners and did not identify any areas for fuel management. Over the past seven years the Regional Partners have experienced increased summer temperatures, more wildfire starts, increasing forest fuels from tree diebacks and root rot and increased use of urban forested areas by unhoused and recreational users. This includes the unprecedented drought that occurred in BC in 2023 linked to climate change, which exacerbated the wildfire season. These factors in conjunction with an increasing population and the expansion of rural developments, presents a real risk of wildfire to the communities in the Comox Valley Regional District.

An extensive engagement process was completed from September 2024 to February 2025, with a broad range of interest holders, as determined in the CWRP's project charter. Activities included e-mails, phone calls, in-person and virtual meetings, field tours, presentations, and a symposium attendance.

¹ [CWRP Instruction Guide 2024](#)

² [January 2025 California Wildfires](#)

The long-term outcomes of this CWRP development and implementation are to ensure that Regional Partners have a plan moving forward to reach the key wildfire resiliency goals that includes looking to doing high level of fuel management mitigation beyond chipping program / off-site debris removal for their communities and the region. The key goals of the CWRP are:

- Increase awareness about wildfire risks and fuel threat reduction activities in a coastal ecosystem amongst the local government staff, community members and interest holders.
- Highlight and expand upon collaboration between the local governments in the Comox Valley, K'ómoks, BC Natural Resource Managers, BC Wildfire Service, CFB Comox and other key interest holders.
- Describe the communities and identify the diverse range of values at risk.
- Assesses the current wildfire fuel threat rating from gathering and analyzing information on forest floor and organic layer data, stand structure and composition data, historic fire data, vegetation, topography, weather, and human activity.
- Identify potential treatment units for using a multi-disciplinary assessment and prioritization.
- Review of relevant plans and by-laws regarding wildfire preparedness and emergency response.

Develop achievable action items that are in line with all seven FireSmart disciplines, ensuring that wildfire management activities protect environmentally sensitive features. This plan is intended to inform the provincial natural resource managers, emergency responders, including the BC Wildfire Service and CFB Comox, local land managers and other interest holders.

Key guiding sections and maps from the plan include:

- Summary of the CWRP results of findings and recommendations for each Regional Partner (**Appendix A: Regional Partner Summaries**).
- Summary of the engagement activities with the Regional Partners and Interest Holders (**Appendix B: Engagement Summary**).
- Maps displaying Area of Interest (AOI) and Values at Risk for the AOI and each municipality (**Appendix G: Area of Interest and Values at Risk Maps**).
- Map of the fuel treatments units for the AOI and each municipality in the WUI (**Appendix I: Treatment Unit Maps**).

2. Relationship to Other Plans

2.1 Community Wildfire Plans

In 2018, a Community Wildfire Protection Plan (CWPP) for the CVRD and K'ómoks was developed in response to the British Columbia wildfire events of 2017. This CWPP was informed by the 2006 CWPP for Courtenay, Merville, and Black Creek (Specified Area) Fire Protection Districts, Cumberland and the Cumberland Fire Protection Districts, but it did not include assessments and recommendations specific to these communities.

Several of the recommendations from the 2018 report have been implemented, including the creation of:

- A well-established regional Community FireSmart Resiliency Committee (CVFSR) that includes representatives from Regional Partners support by a contracted FireSmart Coordinator.
- Any actions not completed, and are still applicable, or are still in progress are included in the action plans of this CWRP.

On Crown land, the province funds Wildfire Risk Reduction plans and programs.³ These programs include fuel management planning and treatments on Crown Land with a focus on higher-risk communities and wildfire risk reduction activities that target critical infrastructure, including government-owned radio repeaters, weather stations, and air tanker bases. At the time of the finalization of this CWRP, the Plans were in progress for the Campbell River and South Island Forest Districts. Copies of these plans may be provided upon request to the Ministry of Forests (MoF).

2.2 Other Plans

Plans developed for the Regional Partners, including K'ómoks, CVRD, Courtenay, Comox, Cumberland and surrounding parks and natural areas all influence this CWRP. Reviewing existing plans helps increase opportunities for collaboration. Appendix C provides a summary of plans containing information on the Regional Partners and wildfire planning and resiliency actions.

³ [Crown Land Wildfire Risk Reduction](#)

3. Community Description

3.1 Area of Interest

The AOI for this CWRP is the CVRD Boundary, which includes the Regional Partners, located on the unceded traditional territory of the K’ómoks First Nation. Located on the east coast of Vancouver Island, the area is bounded by Strathcona Park to the west, the Salish Sea to the east, the Strathcona Regional District to the north, and the Regional District of Nanaimo and Regional District of Alberni-Clayoquot to the south.

The AOI is a mosaic of agricultural, urban, coastal and mountain landscapes covering an area of 181,841 hectares that serves a population of 72,445, according to the 2021 Census.⁴ Note that 79.18% of the land within the AOI is privately owned (Table 2). The private land is comprised of farms, businesses and residential conservation areas or land trusts, as well as significant amounts of Private Managed Forest Land (PMFL). Approximately 14% of the AOI land area is in the Agricultural Land Reserve (ALR).⁵ Refer to Appendix G: Area of Interest Map for the AOI.

Since 1994, K’ómoks First Nation has been involved in treaty settlement lands negotiations and have an approved ratification version of a Treaty⁶. The 4,366 hectares of treaty settlement lands area within the AOI (2.4%), which is also located within the WUI, is comprised of Crown land, with a small parcel of Federal Land. The treaty settlement lands area does not include the 80ha of First Nations Land ownership type which is three K’ómoks Reserves (Comox 1, Pentledge 2, and Goose Spit 3).

Table 2: Land ownership within the Area of Interest (AOI).

Ownership Type	Area (Hectares)	Percent (%)
Crown Provincial and Agency	18,381	10.11
Federal	803	0.44
First Nations (Reserves)	80	0.04
Treaty Settlement Lands	4,366	2.40
Local Government	1,815	1.00
Mixed Ownership	105	0.06
Private	143,978	79.18
Unclassified / None	12,313	6.77
Total	181,841	100%

⁴ Comox Valley Regional District

⁵ Comox Valley Regional District Agricultural Plan Update

⁶ K’ómoks First Nation Treaty Ratification Version Final Drafting Document

3.2 Wildland-Urban Interface

For this plan, as provided in the provincial database, the Wildland Urban Interface (WUI) buffer zone used was two kilometers.

The ownership in the WUI is complex and fragmented, with most of the forests in the WUI being largely composed of privately owned land, including private managed forest land, conservation / covenant lands, treaty settlement lands and private woodlots, with minimal provincial Crown land (11.66%). Most of the provincial Crown land in the WUI is parks either as a tenure to the municipalities and Regional District (approximately 950 ha) or provincial parks (3,310 ha). The rest is mostly attributed to Woodlot Licences or K’ómoks Treaty settlement lands. Additionally, there is Federal Crown land on the Comox Peninsula which is home to the Canadian Forces Base (CFB) Comox, associated barracks and a training area.

Note that 74.8% of the land within the WUI is privately owned (Table 3). PMFL comprises 17.40% of the total area in the WUI, the majority is managed by Mosaic Forest Management (12.85%) and Manulife Investment Management (2.05%).

Refer to the Appendix I: Treatment Unit Map for the location of the WUI.

Table 3: Land ownership within the Wildland-Urban Interface.

Ownership Type	Area (Hectares)	Percent (%)
Crown Provincial and Agency	9,263	13.57
Federal	803	1.18
First Nations (Reserves)	80	0.12
Treaty Settlement Lands	4,366	6.40
Local Government	1,618	2.37
Mixed Ownership	105	0.15
Municipal	1	0.00
Private	39,139	57.36
Private Forest Managed Land	11,876	17.40
Unclassified	981	1.44
Total	68,233	100%

3.3 Community Information

Demographics and Housing

The CVRD is a growing region. In 2021, the population of the Regional District was 72,445, an increase of 8.9% since 2016. By 2031, the population in the Regional District is expected to increase to 82,976 with a 30.1% population increase in 20 years (2011 to 2031). A 22% increase in housing is needed, or 432 new dwellings units a year, to accommodate this demand. Yet

population growth in electoral Areas A, B, and C is only projected at 0.02%.⁷ Of note, the population of the Comox Valley is rapidly aging, except for Cumberland, which has a growing youth population. Older individuals and those with asthma and other respiratory issues are also at an increased risk from wildfire smoke.⁸ The unhoused population within the Comox Valley is estimated at 300 people in 2022.⁹

Furthermore, Indigenous People have occupied the shoreline of eastern Vancouver Island in this place referred to as “the land of plenty” for thousands of years. This Land of Plenty stretched from what is known today as Kelsey Bay south to Denman and Hornby Islands and included the watershed and estuary of the Puntledge River.¹⁰ As of 2021, K’ómoks has a population of 291 which is a 31% increase from 2016.

Table 4: Population statistics of the Regional Partners (not including Area A, B and C).

	2011	2015	2020	2021
Regional District Population	63,538	---	---	72,445
Regional District Dwelling Units	30,156	---	---	34,809
Median Age (years)	48.1	---	---	50.8
Median Household Income (\$)	---	60,800	70,000	---
Poverty Rate (%)	---	---	---	7.1
Unemployment Rate (%)	---	---	---	7.6
Data Sources	<i>Rural Comox Valley Official Community Plan and Statistics Canada</i>			

Retail services, government, health care and tourism are all significant local economic drivers, with most employment centred in and around the Courtenay-Comox hub. Forestry, agriculture, and other resource industries are the key sectors in more rural areas with construction, tourism, and retirement migration three of the regions key economic drivers. The Comox Valley Regional Growth Strategy supports resource-based employment opportunities to recognize the importance of forestry, fishing, and agriculture in regional economic activities.¹¹

Firefighting Areas

There are eight fire rescue departments, nine fire service areas and three improvement districts in the AOI. ¹² Though not a municipal fire department, Canadian Forces Base Comox (CFB Comox) fire department is part of the mutual aid agreement with the other fire departments. Each fire department has a website with varying levels of information regarding FireSmart. With respect to wildfire, the AOI is in the Coastal Fire Centre – North Island Mid Coast Zone, except for the south end of Fanny Bay (which includes Denman and Hornby Islands) which is in the Mid Island Fire

⁷ Rural Comox Valley Official Community Plan

⁸ Asthma Canada

⁹ 2022 Housing Plan

¹⁰ K’ómoks First Nation Origin Story & History

¹¹ Comox Valley Regional Growth Strategy Bylaw No.120, 2010

¹² Fire Services Administered by the CVRD and Municipalities

Zone. The British Columbia Wildfire Service (BCWS) is currently the primary responder for the Bates-Huband Fire Protection Service Area (i.e., Seal Bay Nature Park). There is a provincial Inter-Agency Agreement between BCWS and the Fire Chiefs' Association of BC for response coordination in the WUI.¹³

Refer to Appendix G: Area of Interest Map for the location of the fire protection districts in the AOI.

3.4 Green Spaces

As defined in the FireSmart Program, Green spaces include open area parks (i.e., playgrounds, sports fields, and picnic areas), gardens, cemeteries, naturalized spaces, trails and pathways, linear parks and greenways, rights-of-way and boulevards. There are several of these green spaces within the municipalities and rural areas of the AOI. FireSmart activities to be completed within green spaces involve managing vegetation and implementing fire-resistant landscaping practices and specifically excludes routine maintenance activities.¹⁴ A list of parks assessed as a part of this CWRD is included in Appendix A: Regional Partner Summaries, which does not include comprehensive list of green spaces in the AOI.

There are specific criteria in the spaces in the *Checklist for CRI requirement for a Fuel Management Prescription*¹⁵ that define when a Fuel Management Prescription is required. Examples include areas greater than three hectares (ha), removal of trees greater than 2 meters in height (the maximum pruning height) is required, or the disturbance of sensitive areas is in question.

3.5 Culturally Significant Sites

K'ómoks holds authority over cultural heritage and artifacts under Indigenous law and under K'ómoks First Nation Cultural Heritage Policy.¹⁶ All K'ómoks cultural remains pre-dating AD 1846¹⁷ and all ancestral remains dating to all periods of time are automatically protected.

All impacts from projects to K'ómoks cultural heritage require consent that may be gained by applying for a K'ómoks First Nation Cultural Heritage Investigation Permit (CHIP). Engagement with K'ómoks should be initiated as early as possible for any project that could impact a culturally significant site. Additional time should be anticipated during engagement within the Southern Core Territory.

If ground disturbance is required, then K'ómoks should be contacted to confirm if the project is within a registered archaeological site since these locations are not publicly available. Ground

¹³ [Memorandum of Agreement for Inter-Agency Operational Procedures and Reimbursement Rates](#)

¹⁴ [Cultural Sites and Green Spaces \(CSGS\) Guide](#)

¹⁵ [Checklist for CRI requirement for a Fuel Management Prescription](#)

¹⁶ [K'ómoks First Nation Cultural Heritage Policy 2020](#)

¹⁷ [Heritage Conservation Act](#)

disturbance in a registered archaeological site within K’ómoks core territory requires both a provincial Heritage Conservation Act permit and a K’ómoks CHIP before projects can proceed.

Areas that have been identified as having high archaeological potential (AOP) within K’ómoks core territory will also require a CHIP.¹⁸ Shorelines and major lake and river systems in the AOI are within the AOP. Project areas can be searched for potential overlap using the K’ómoks Area of Potential Location Search tool.¹⁹

Cultural sites were not assessed in this CWRP, but there is available funding to implementing support FireSmart activities to protect culturally significant sites.²⁰

3.6 Values at Risk/ Response Goals

Appendix G: Area of Interest Map includes a map and table with the key identified values at risk in the AOI.

Safety and Health of all Responders and the Public

In the event of wildfire approaching a community, the first response priority is to ensure the safety and health of all responders by protecting them, allowing them to effectively manage the emergency.²¹ The second is to prioritize the safety and rescue of people affected by the incident, including the evacuation of at-risk areas. Wildfire can move quickly and unpredictably. It takes time for people to evacuate an area, and safe access can be blocked by the fire itself or by vehicle congestion or accidents.²² There are areas in the AOI that have been identified as having logistical constraints related to evacuation, which include, but are not limited to:

- Mt. Washington Alpine Resort – There is only one access road in and out of the popular resort that operates year-round.
- Forbidden Plateau Neighbourhood - There is only one access road in and out of the area and there is a popular hiking and snowshoe location at the top of the hill.
- Denman and Hornby Islands – These Islands are only accessible by water and the BC Ferries system does not have the capacity to evacuate all the residents in the event of an emergency.
- Sandpines Neighbourhood – This area composed of dry pine stands and is subject to strong SE winds. Evacuation routes may be limited during a fast moving wildfire.

¹⁸ [CHIP - K’ómoks First Nation](#)

¹⁹ [Potential Location Search Tool](#)

²⁰ [FireSmart CSGS Guide](#)

²¹ [BC Emergency Management System](#)

²² [2024 Community Wildfire Resiliency Plan Instruction Guide](#)

Reduce Suffering and Protect Human Health

The third and fourth response goals are to reduce suffering by providing medical aid, shelter, and humanitarian assistance, while protecting public health by preventing the health hazards, including:

- A. **Wildfire Smoke** – Wildfire smoke contains a complex mixture of gases and fine particulate matter (PM2.5) that can have significant short- and long-term impacts on human health. The severity of these effects depends on factors such as the duration of exposure, the concentration of pollutants, and individual susceptibility. Comox Valley is at risk of poor air quality, so even moderate air quality levels can have impacts on vulnerable populations (i.e., those with asthma, chronic obstructive pulmonary disease, heart disease, dementia). Island Health, with the support of Health Emergency Management BC is undertaking the completion of Hazard Risk and Vulnerability Assessments (HRVAs)²³ for the Comox Valley. There is also guidance for the development of clean air spaces in communities.²⁴
- B. **Mental Health** – Wildfires can continue to have impacts on evacuees' mental health long after the wildfire. The School of Psychology at Laval University published a study that assessed the mental health of evacuees after the 2016 Fort McMurray wildfires.²⁵ The study was led by Genevieve Belleville and found that of the 55 evacuees interviewed, that 29.1% had symptoms of post-traumatic stress disorder, 43.6% experienced insomnia, and 25.5% depression. The British Columbia Government offers counselling and virtual services including crisis lines to help evacuees.²⁶ Critical Incident Stress Management teams are also in place on a local scale to help mitigate the risk of long term mental health issues.
- C. **Underhoused and Unhoused Population** – This population is particularly vulnerable to effects from wildfire smoke. A study completed in Salt Lake Country, Utah looking at the effects of wildfire impacts on air quality in the unhoused population found that of the sampled unhoused population 61% experienced physical reactions to air pollution and 37% experienced emotional stress from the air quality.²⁷

Protect Critical Infrastructure

The fifth emergency response goal is the protection of critical infrastructure to maintain essential services such as power, water, communications, and transportation. **The definition of critical infrastructure has not been clearly defined by the province**, therefore local governments are responsible for specifying what infrastructure they view to be critical through their local emergency planning for priority protection. At the time of this CWRP, the consideration of which infrastructure

²³ [Mapping wildfire hazard, vulnerability, and risk to Canadian communities](#)

²⁴ [Guidance for Cleaner Air Spaces during Wildfire Smoke Events](#)

²⁵ [Belleville, G., Ouellet, M.-C., & Morin, C. M. \(2019\).](#)

²⁶ [B.C. Government](#)

²⁷ [DeMarco, A. L., Hardenbrook, R., Rose, J., & Mendoza, D. L. \(2020\).](#)

is considered critical by the Regional Partners is under review and will be updated to align with the new EDMA as regulations become available from the province.

Utility infrastructure to support electrical power, natural gas and communications should also be considered critical infrastructure.

Municipal and Regional District Buildings

Municipal and Regional District buildings play a vital role by serving as coordination centers for response efforts, housing emergency operations centers (EOC), and ensuring continuity of essential public services for community resilience and recovery. Municipal and Regional District Buildings should serve as leading examples of the FireSmart Program, given their vital role in public services.

Electrical Power

Power is crucial in an emergency as it supports critical infrastructure, emergency response operations, communication systems, and essential services needed for public safety and recovery. Especially considering that Local Governments and Regional Districts move to implementing more electrified vehicles to offset their greenhouse gas emissions. BC Hydro is the only provider of electrical services to communities throughout the AOI.

Electricity is delivered through an expansive network of wood and steel structured transmission and distribution lines from hydroelectric generating facilities and substations.

BC Hydro has a well-established internal emergency management system and works closely with the BCWS and emergency responders in the event of a wildfire. They adhere to the Wildfire Act Regulations (with emergency exemptions), which includes monitoring wildfire locations and weather patterns as well as hot work procedures (e.g., wetting down work areas). They also have training, maintenance and inspections procedures in place. Their vegetation management program along the transmission and distribution power lines and at substations is comprehensive, as well as procedures in place to prevent damage to the structures from wildfire (e.g., wrapping or spraying poles with retardant materials). When the fire danger ratings are higher (i.e., May through September), BC Hydro evaluates risk on a circuit-by-circuit basis and if needed, operates the electrical system differently by disabling automatic reclosers and preventing remote energization following a fault on the system.

Natural Gas

Protecting natural gas pipeline infrastructure during wildfires is crucial to prevent explosions, gas leaks, and service disruptions that could endanger public safety, emergency response efforts, and critical utilities. Natural gas pipeline infrastructure within the AOI was provided by Fortis, there are several valve assembly and control stations along the pipelines that run along highway 19 and through Courtenay.

Fortis has an emergency management department, including a wildfire subcommittee, that interacts with the BCWS and emergency responders in the event of a wildfire. Like BC Hydro, they

follow regulatory requirements and have a routine vegetation management program at their operational sites. If required, they are prepared to apply PhosCheck to protect their infrastructure in the event of a wildfire. Community engagement is also a focus, which includes increasing public awareness regarding how to detect and respond to a gas leak and to engage and support the emergency responders (e.g., inter-agency drills).

Communications

Cell towers are crucial to protect during a wildfire because they support emergency communication, coordination of response efforts, and public alerts. There are several communications providers that operate in the AOI, with the associated infrastructure. The individual providers (i.e., Telus, Rogers, etc.) are responsible for the maintenance and protection of these structures. CVEM has a robust volunteer Emergency Radio Communication Team and turn-key ready Emergency Operations Centre emergency radio communication room and repeater network, should communications fail.

Protect Drinking Water Supply Area and Community Watersheds

Watershed protection should be included in critical infrastructure as it ensures the sustainability of clean water supplies, supports ecosystems, reduces the risk of flooding and erosion, and enhances resilience to climate change.

- A. **Drinking Water Supply** – Wildfires can significantly affect watersheds drinking water, disrupting water quality, availability, and infrastructure. These impacts can last for years and pose serious challenges to water resource management and public health. If an atmospheric river were to occur after a wildfire, it could cause widespread flash flooding and trigger landslides within the area.²⁸
- B. **Community Watersheds** – There are two designated community watersheds for drinking water in the AOI, the Puntledge Community Watershed (also referred to as the Comox Lake Watershed) and the Oyster Community Watershed.

Table 5: Designated community watersheds for drinking water in the AOI.

Watershed Name	Size (ha)	Description
Puntledge Community Watershed	59,000	Includes Comox Lake, the Puntledge River, and Brown’s River. As the watershed is open to the public, a variety of timber harvesting, recreational and residential activities occur around the lake. A large part of the watershed falls within Mosaics’ PMFL, Strathcona Provincial Park, with private lots completing the rest of the watershed.
Oyster Community Watershed	36,000	The Oyster River originates in the mountains of the Forbidden Plateau. Little Oyster River, Woodhus Creek, Piggot Creek, and Adrian Creek are the major tributaries. A large part of the watershed falls within Mosaics’ PMFL, Strathcona Provincial Park, with private lots completing the rest of the watershed.

²⁸ [British Columbia FireSmart](#)

The Comox Lake Watershed Protection Plan specifies wildfire as the highest risk to the watershed, as both fire and suppression techniques within this area could be catastrophic to water quality. It describes a 71-90% probability of wildfire occurrence in the watershed in the next 10 years. The water treatment plant has the capacity to treat high turbidity events but does not have the capacity to treat catastrophic events.

The BC Wildfire Service, and local fire departments, when fighting Class A Fires, use fire retardants to reduce the size and impact of wildfires (i.e., PhosCheck). Fire retardant use in the watershed could result in additional nutrients and contaminants potentially being introduced to the drinking water.²⁹ The water treatment plants likely do not have the capacity to treat contaminated water from fire retardant.



Figure 1: Unauthorized beach fire at Coal Beach, Comox Lake

- C. **Human Threats** – Although there are no fires permitted, unless under a permit, unauthorized fires and off-road vehicle use along the shore of Comox Lake (beach fires are common along the shores at Coal’s beach, Whyte’s Bay and Comox Lake Bluffs Ecological Park), coupled with restricted access in the summer from limited parking space, is a major concern for Cumberland and the local Fire Department. There is also currently not a provincial or municipal compliance mechanism to enforce unauthorized entry and fire, it is currently being managed with signage and education awareness campaigns.

There are seven different water systems that provide drinking water to the region³⁰, as listed in the following table.

Table 6: Regional Partners, Water Systems.

Water System	Water Source	Regional Partners Water Service Area	Approximate Number of People Served
Black Creek-Oyster Bay Water System	3 groundwater wells (Well No.1, Well No 4, Well No.5) and an infiltration gallery under the Oyster River (Well 2A/2B)	Black Creek – Oyster Bay	2,200
Comox Valley Water System	Comox Lake	Supplies bulk water to distribution systems operated by Courtenay, Comox, and the Comox Valley Local Service Area	50,000

²⁹ Comox Lake Watershed Protection Plan

³⁰ CVRD Water Systems

Water System	Water Source	Regional Partners Water Service Area	Approximate Number of People Served
Denman Island Water System	Graham Lake	Denman Island	50
Graham Lake Water System	Graham Lake	Denman Island	150
Royston Water System	5 lakes located in the Cumberland Creek and Perseverance Creek sub-watersheds (of Comox Lake), and a ground source at Coal Creek Historic Park	Royston	2,000
Union Bay Water System	Langley Lake	Union Bay	1,500
Perseverance Creek / Cumberland Creek Sub-watersheds Surface System	Surface reservoirs from five lakes: Henderson Lake, Hamilton Lake, Stevens Lake, Allen Lake, and the Cumberland Creek reservoir. Includes groundwater source at Coal Creek Historic Park.	Cumberland	5,000

Most of the area in these watersheds or surface reservoirs are in working PFMLs where the threat of industry-started wildfires is present. The Oyster River and Union Bay (Langley Lake) watersheds are sediment rich and would be more susceptible to turbidity impacts from wildfire. These water treatment systems would not have the capacity to treat water from catastrophic events.

Protect Property

Reducing damage to homes, businesses, and community assets is the sixth response goal. This plan does not provide details on all the business and community assets but does include historic sites which are also considered a value at risk.

Historic Sites

The BC Register of Historic Places is part of the provincial heritage register of historic and archaeological sites that exist as a statutory requirement of the *Heritage Conservation Act*. There are 48 registered historic sites in the AOI. These include neighbourhoods (e.g., Fifth Street, Courtenay), individual buildings (e.g. The Waverly Hotel, Cumberland; Tribune Bay Lodge, Hornby Island), parks (e.g., Lewis Park, Courtenay; Coal Creek Historic Park, Cumberland) and extends to other historic sites such as the Wellington Colliery Railway and Fanny Bay.

Table 7: Number of Registered Historic Sites in Communities within the AOI.

Community	Number of Historic Sites
Comox	3
Courtenay	23
Cumberland	18
Denman Island	2
Fanny Bay	1
Hornby Island	1
Total	48

Protect the Environment

The protection of the environment is the seventh emergency response goal.

Species at Risk

A search of the BC Conservation Data Centre (CDC) database, BC Species & Ecosystems Explorer, was performed to tabulate a list of provincially- and federally listed species and ecosystems. Using the following search criteria:

- BC Conservation Status: Red-Listed (Extirpated, Endangered, or Threatened) OR Blue-Listed (Special Concern), and / or on Species at Risk Act Schedule 1, and/or within BC Wildlife Act, and / or within Migratory Bird Conventions Act
- Regional District: Comox Valley Regional District

The search resulted in 364 records of potentially occurring species. Some records were excluded due to lack of applicability regarding overland wildfires or occurrence within the AOI, which brought the relevant search results to 284 records, with 22 fish, 6 amphibians, 7 reptiles, 61 birds, 12 mammals, 58 invertebrates, 70 vascular plants, 5 bryophytes, 16 lichen, and 58 ecological communities.

Animal species that might be found within the AOI would demonstrate different levels of wildfire tolerance depending on factors such as the intensity and size of the burn, the habitat resulting from a burn, and whether they are specialist, small, non-fossorial species.³¹ Fish species were not considered to be directly at risk in regard to wildfires. However, loss of riparian vegetation could be considered an indirect impact due to loss of nutrient drops, adequate cover and adequate shading of watercourses. Additionally, while natural wildfires with low severity might be beneficial to forest ecosystem health and related ecosystem services, it could also affect water quality and supply within the affected watershed.³² Plant species and ecological communities would also exhibit differences in tolerance to wildfires depending on their ability to re-establish and regenerate after a burn. Of particular importance to influencing biodiversity would be weather events such as rainfall

³¹ DeBano, L. F., Neary, D. G., & Ffolliott, P. F. (1998). *Fire effects on ecosystems*. John Wiley & Sons

³² Bladon et al, 2014

events after wildfires.³³ If the wildfire burns with enough intensity, then chemical changes can occur to the top layer of the soil that will cause a water-repellant layer to be created and will prevent rainfall from seeping into the soil.³⁴

Overall, wildfire poses varying effects on the biodiversity of the Comox Valley. Research on the effects of wildfires on plant and animal species has been ongoing. As such, it may be important to minimize the impact of and loss of biodiversity from wildfires in the AOI.

Sensitive Ecosystems

The AOI has several sensitive ecosystems scattered throughout the AOI as identified in the Sensitive Ecosystem Inventory. Riparian, Wetland, Terrestrial Herbaceous (open wildflowers meadows), Sparse Vegetated (sand or gravel or bedrock with little vegetation), Older Second Growth Forest and Older Forest. It was noted by Comox Valley Land Trust that the SEI data had not been updated since 2010 for the Comox Valley.

Through reviewing numerous Official Community Plans, the Regional Growth Strategy, BC Parks management plans and the First Nations Woodland Licence Management Plan, there is a wealth of information regarding sensitive ecosystems, species at risk, regionally important species, and uncommon plant species. Which may also include provincial Wildlife Habitat Areas, non-legal Old Growth Management Areas and Government Action Regulations Orders (e.g., Ungulate Winter Ranges). Given the depth of information specific to areas within the large AOI and the scope of this CWRP, it is recommended that specific plans be reviewed if further environmental information is required; for example, to assist in preparation of a fire management, fuel reduction treatment or response plan. Plans must be reviewed in the preparation of fuel management prescriptions for Crown Land or when a sensitive ecosystem may be impacted by the proposed activities.

Conservation Areas

Over 1100 hectares of conservations areas (available on the provincial database or otherwise provided) within the AOI are managed and / or owned by non-profit organizations. Generally, these are ecologically significant areas that have been identified as critical habitat and are conserved to help protect biological diversity and / or species at risk. Historically, targeted areas included Coastal old-growth forests, which are generally more resistant to wildfires, however more recently these areas include younger stands with a restoration goal. These are also areas that have been identified as valuable to the communities in the AOI.

Table 8: Non-profit organizations with private land in the AOI.

Lead Organization	Area (ha)
Comox Valley Land Trust*	24.5
Cumberland Community Forest Society / Village of Cumberland	220.6
Denman Conservancy Association	165.6
Ducks Unlimited Canada	271.4

³³ Pastro, Dickman & Letnic, 2011

³⁴ Ileana Wachtel, 2023

Lead Organization	Area (ha)
Island Trust Conservancy	120.6
The Nature Trust of British Columbia	301.7
Total	1104.3

**Note: This only represents the area for the qax mox conservation area, and does not include the private lands, including the Morrison Creek headwaters.*

Locally, the Comox Valley Land Trust works to protect, conserve and restore the ecologically significant land, waters, and wildlife habitat of the Comox Valley. Their protection program works with governments on sustainable development policies and co-operates with agencies on preservation initiatives through conservation covenants and land acquisitions. Through these initiatives, the Comox Valley Land Trust has helped protect over 600 hectares in the Comox Valley.³⁵ For instance, the Comox Valley Land Trust has worked together with the Cumberland Community Forest Society (CCFS), the municipalities and the CVRD to preserve parcels of land in the AOI. The CCFS is a community-based, charitable society which aims to purchase, protect and care for the Cumberland Forest. To date, the CCFS has completed 5 major land acquisitions which are protected through a *Land Title Act* Section 219 conservation covenants.³⁶

Parks

There is a multitude of Regional Parks, Community Parks (Electoral Area Parks and Municipal Parks) and Provincial Parks within the Regional Partnership. Together, parks and conservation areas protect 8.7% (22,000 ha.) of the region’s land base. However, less than 2% of the region’s total area is protected by regional or municipal parklands. Besides Strathcona Provincial Park, which accounts for most of the parkland in the region, the parks and protected areas and not considered large-scale.³⁷

Table 9: Park areas in the CVRD by ownership. ³⁸

Type	Area (ha)
Provincial Parks	17,165 (78%)
Conservation Lands	2,591 (12%)
CVRD Parklands	1,699 (8%)
Municipal Community Parks	556 (3%)
Total	22,011

Natural Assets

Municipal natural assets are natural features including wetlands, forests, and rivers that provide valuable economic services to the communities.³⁹ Natural assets help mitigate wildfires by acting

³⁵ [Comox Valley Land Trust](#)

³⁶ [Cumberland Community Forest Society](#)

³⁷ [CVRD Regional Parks & Trails Strategic Plan \(2024\)](#)

³⁸ [CVRD Regional Parks & Trails Strategic Plan \(2024\) APPENDICES](#)

³⁹ [University of Waterloo](#)

as fire breaks that slow or stop fire spread. Rivers, lakes, wetlands, and rocky outcrops create fuel-free barriers, while moisture-rich areas like riparian zones and deciduous forests resist burning. The Regional Partners launched a multi-year initiative with the Municipal Natural Assets Initiative to assign value to natural features within the Comox watershed.⁴⁰ The CV Land Trust has started completing eco-asset valuation with examples including Brooklyn Creek Eco-Asset Valuation, Saratoga-Miracle Beach Local Area Plan, and City of Courtney Integrated Stormwater Management Plan.⁴¹

Reduce Economic and Social Losses

By protecting and other resource values, recovery efforts can be supported to restore normalcy and minimize financial impact to the communities. Other resource values include:

- A. **Timber values** – Are extensive throughout the AOI in the form of Crown tenure Woodlots and Private Managed Forest Land; the latter of which makes up most timber harvesting areas.
- B. **Non-timber Forest Products** – May also be considered a significant additional resource value. Examples of non-timber forest products in the area could be forest-based foods (bigleaf maple or birch syrup, berries, mushrooms), cultural / medicinal plants, and ornamental products (salal, cedar, pine).
- C. **Local Government Recreation Services** – Are provided including aquatic centres, ice arenas, wellness centres, and outdoor facilities that provide horseback riding and track and field. Additionally, there is an abundance of outdoor activities such as mountain biking, skiing, hiking, golfing, fishing, and watersports. For example, the United Riders of Cumberland reported, though trail counters, 220,000 users in 2024 in the Cumberland trail networks, which is a 60% increase from 2019.
- D. **Festivals** – The Comox Valley also hosts numerous festivals including Woodstove Music and Arts Festival, BC Shellfish and Seafood Festival, Two Wheels Bike Festival, Hornby Festival and Comox Valley Winterfest to name a few.

Accessibility for tourists is easily available through the Comox Valley Airport, BC Ferries services sailing from Powell River to Comox, and sailings to Denman Island and Hornby Island.

Wildfires can severely affect agricultural areas, leading to immediate losses as well as long-term challenges for farmers, ranchers, and the surrounding ecosystem. These impacts include damage to crops, livestock, soil health, and infrastructure, as well as broader economic and environmental consequence.

⁴⁰ [Comox Valley Regional District Natural Assets Initiative](#)

⁴¹ [Comox Valley Conservation Partnership: Our Strategy](#)

4. Wildfire Risk Assessment

4.1 Wildfire History

During the 1920s and 30's, as the Comox Valley was initially being settled, extensive land clearing and logging took place. It was during this time that the region recorded large wildfires (over 10 ha), a majority of which were human caused. Land clearing efforts almost 100 years ago are still evident today as pastures and farmer's fields.

Between 1919-2017 a total of 931 wildfires were recorded, of which the majority were human caused (approximately 75%). There was a large stand replacing fire (approximately 33,000 ha) in 1938 that extended from Campbell Lake to Merville. The last large wildfire (>10 ha) was in 1958 and was 289 ha.

Since 2018, there have been 53 fires within the AOI. Humans caused 36 of the fires and 12 were lightning caused. The cause of five fires is unknown. Only one fire exceeded 1.0 hectare in size⁴². In 2023, there were eight fires, three of the fires were lightning caused and five were human caused. Two fires were considered interface fires (V71880, 0.2 ha, Sandy Creek and V71881, 0.2 ha, Chef Creek). All the fires were under 1.0 hectare in size.

In 2023, the North Island Mid Coast Fire Zone had 107 fires. Lightning caused 70 of the fires and 31 were human caused. The cause of the remaining six fires is unknown. Of these fires, 27 (25%) exceeded 1.0 ha in size. The largest fire was recorded at 2320 ha (Mount Con Reid, V82558, lightning caused).

In the Mid Island Fire Zone, there were 42 fires in 2023. Of these, 30 fires were caused by human caused and 10 were lightning caused. The cause of the remaining two is unknown. Of these fires, four (9.5%) exceeded 1.0 ha in size. The largest fire was recorded at 229 ha. (Cameron Bluffs, V70600, Human caused). It is worth noting that Cameron Bluffs and the Comox Lake watershed have the same topography.

During July and August, the number of lightning strikes was 75 per cent of the 20-year average, showing a lower frequency than usual. However, due to the dry, susceptible fuel, lightning accounted for a higher percentage (over 70 per cent) of wildfires this season compared to previous years (typically about 60 per cent)

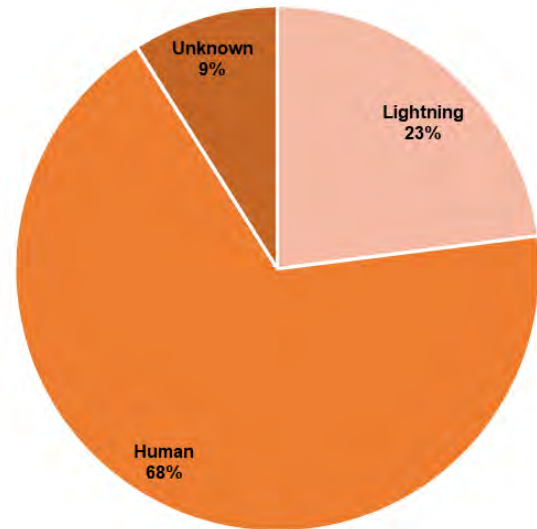


Figure 2: Wildfire by general cause in the AOI from 2018 to 2023.

⁴² [BC Wildfire Fire Incident Locations - Historical](#)

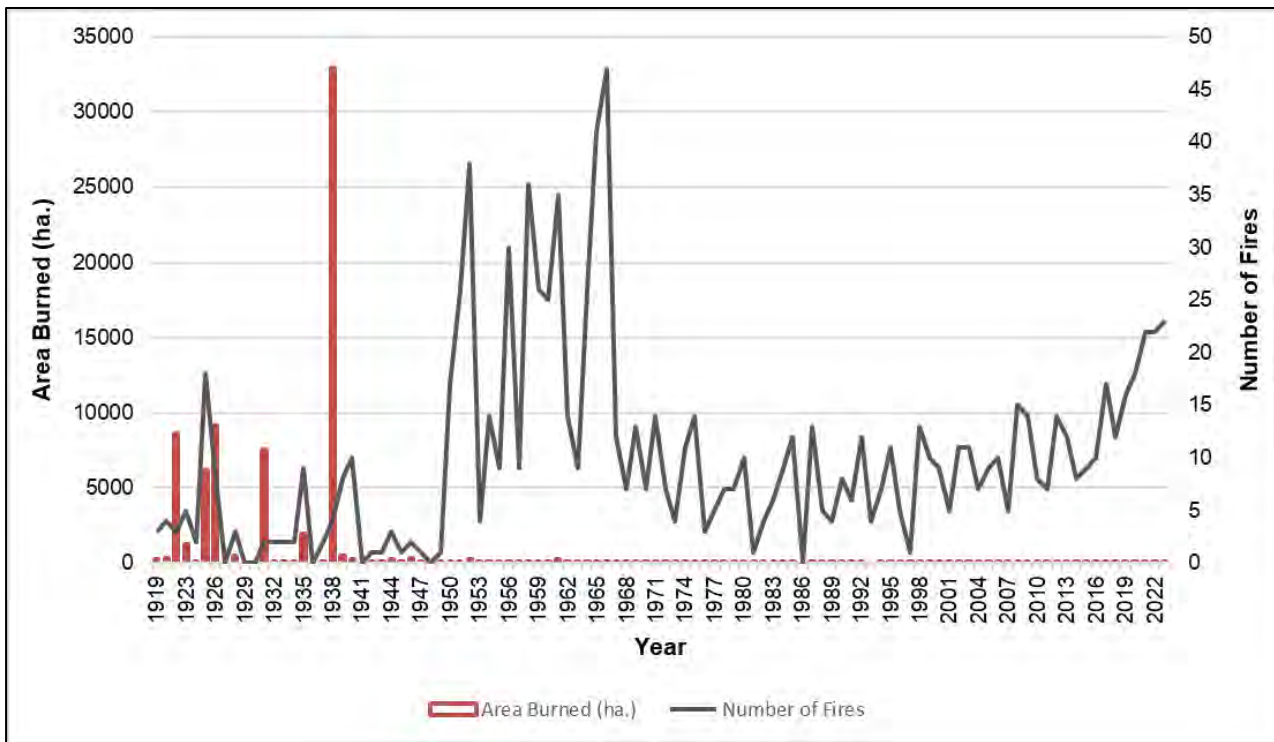


Figure 2: Historic (1919 – 2023) number of fires and total area burned (ha.) per year in the AOI.

In correlation with Figure 2, Section 113a of the *BC Forest Act* came into effect in 1938, making it obligatory that logging slash be burned in the fall for all operations on the Coast, which was rescinded in 1948 to facilitate a shift to spot burning. Refer the Appendix F: Fire History Map for a representation of the density of the burned areas.

Between 2018 and 2023, within the fire department jurisdictions there were several brush / vegetation fires of note:

- **Comox Fire Rescue:** Attended only one fire of significance in 2019 on Curtis Road. It was approximately three hectares and BCWS attended with a helicopter to bucket the fire. This was also a mutual aid response from other departments to assist.
- **Oyster River Fire Rescue:** Had 27 fires, with 21 of them being considered large enough to pose a threat to the community.
- **Courtenay Fire Department:** Responded to around 132 significant grass / brush fires in the City of Courtenay and its greater Fire Protection Area.
- **Cumberland Fire Department:** Responded to 30 calls related to fires with the majority related to unattended fires on Puntledge Lake and Comox Lake Road as well as roadside grass fires.
- **Ships Point Volunteer Fire Department:** During times of fire prohibition, they average one to two calls per month to address illegal backyard fires.

4.2 Wildfire Environment

The threat of wildfire is influenced by the environmental conditions that enable ignition, the spread and consumption of organic materials such as shrubs and woody material. The major components that define the threat of wildfire are.⁴³

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

The fire triangle (fuel, weather, and topography) requires all three components for a successful fire to ignite, and when one is removed or altered, fires have a smaller chance of igniting and spreading.

Fire behaviour is being intensified by shifted weather patterns associated with climate change. For example, the conventional understanding of the "active day, quiet night" is not predictable. Overnight warming is reducing the climatological barrier to nighttime fires. The primary factor driving recent overnight burns in large wildfires was the increased dryness of accumulated fuels, resulting in consecutive nighttime burns that, in some cases, persisted for weeks.⁴⁴

Weather

Weather data is sourced from the Canadian Climate Normals 1991-2020 Data from the Comox A weather station (climate ID 1021830). Due to variation in topography and elevation in the AOI, weather patterns may slightly differ across municipalities.

The Comox Valley has a temperate climate year-round due to its proximity to the Strait of Georgia. It experiences warm, dry summers with an average daily temperature of 16°C from May to September. Winters are mild and wet with temperatures usually remaining above freezing. The average daily temperature from

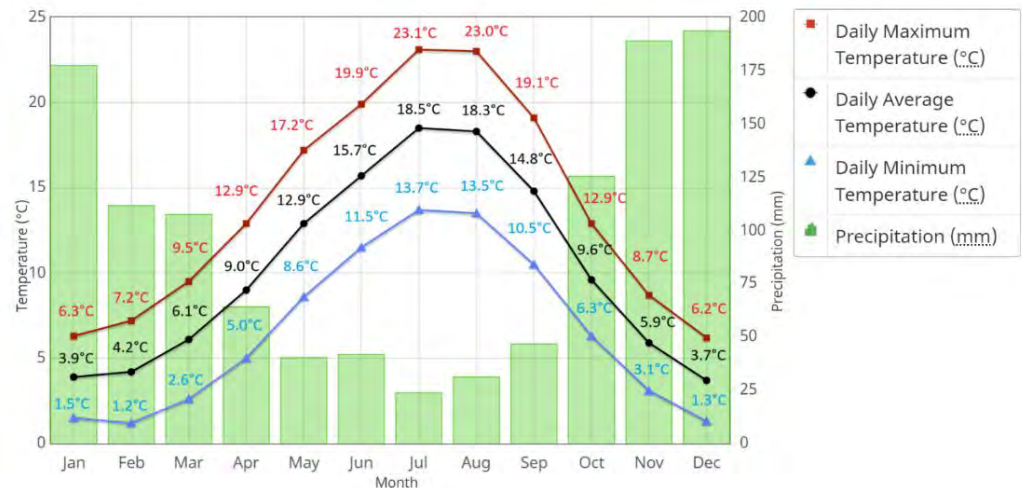


Figure 3: Temperature and Precipitation Graph for 1991 to 2020.

⁴³ BC All about wildfire

⁴⁴ Drought triggers and sustains overnight fires in North America

October to April is 6.1°C. The highest daily average temperatures usually occur in July and August, averaging 18.5°C and 18.3°C, respectively. The highest maximum daily temperature was recorded at 35.2°C (July 2009).

Average annual precipitation is 1,152.2 mm. Precipitation predominantly falls as rain with an average annual rainfall of 1,099.9 mm. There are 167.5 days a year with rainfall exceeding 0.2 mm and 130 days with rainfall exceeding one millimetre on average. Between October and April 83% of precipitation falls. With only 50.8 cm of annual snowfall on average, there is minimal snow accumulation. The average snow depth is one cm from December to February and zero cm for the remaining months of the year.

The average annual relative humidity at 0600 is 85.2%, but during summer months (July – September), average relative humidity is 81.9% at 0600. The average annual relative humidity at 1500 is 70.1%, but during summer months, average relative humidity is 59.6% at 1500. On average, there are 7.7 days a year where the humidex exceeds 30. This predominantly occurs in July and August, but instances can occur from May to September.

The primary wind direction is SE in summer and NW in winter. The average wind speed is 12.5 km/hr, and there are usually 24.2 days a year where wind speeds exceed 52 km/hr and eight days a year where wind speed exceeds 63 km/hr. In all months, extreme wind comes from the SE where sustained speeds can exceed 80 km/hr and is a concern for the BCWS with regards to wildfire spread. The fastest gust was recorded at 117 km/hr (March 2012).

There is limited BCWS fire weather stations in the AOI therefore Bowser was selected as being the most representative of a majority of the WUI. This station is coastal (1.6km from the ocean), is low elevation (121m) and has data from 1997 to 2016. The ISI Rose patterns show dominant east and northeast winds, with a less frequent northerly. Easterly winds come from the Salish Sea, and any northerly influenced wind is likely from drier, outflow winds originating on the BC central plateau.

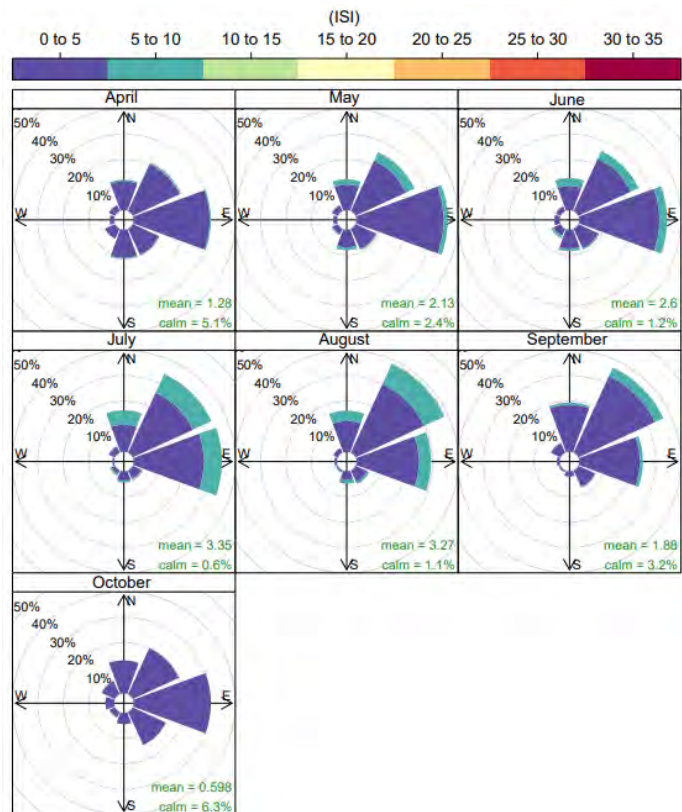


Figure 4: ISI Rose, BCWS Bowser.

Fuel (Vegetation)

Due to variation in fuel arrangement and morphology and the size of the WUI, the composition of the forest fuels associated with different forest types are varied. Forest fuels consist of dead or living vegetation and organic soil matter stratified out into four separate layers as follows:

Forest composition and ecosystem characteristics, which includes tree species, stand structure and age, and soil conditions can be used as an indicator of fuel loading on the landscape. For example, coniferous and woody shrub fuels are generally more flammable than deciduous forests because they tend to have lower moisture content. The Biogeoclimatic Ecosystem Classification (BEC) is an ecological framework that can be used to identify, describe, and map ecosystem units by combining site, soil, and vegetation characteristics to define and describe each unit.

The majority of the WIU is in the Very Dry Maritime Coastal Western Hemlock (CWHxm) zone (74.8%) which is characterized as a Douglas-fir, and western hemlock forest with a deciduous shrub understory. The CWH is characterized by longer summers that are significantly drier, with limited rainfall contributing to increasing wildfire risks.

It is followed by the Coastal Douglas-fir Moist Maritime (CDFmm) zone which is characterized as a dryer Douglas-fir, arbutus, Garry Oak Forest with sparse deciduous shrub understory. The CDF is characterized by a pronounced summer drought period, a key driver of wildfire risk.

Both ecosystems are classified as Natural Disturbance Type 2, which is described as having infrequent stand-initiating wildfires (every 200 years). But when fires do occur, they are often high-severity stand-replacing events.

Table 10: Summary of relevant BEC zones / subzones within the AOI WUI.

BEC Zone	BEC Zone Description	Area within WUI
<p>CWHxm Very Dry Maritime Coastal Western Hemlock</p>	<p>Distribution: Low elevations along southeast Vancouver Island Elevation: Sea level to 700m Climate: Warm, dry summers and moist, mild winters with little snowfall Tree Cover: Douglas-fir, western hemlock, with minor western red cedar Vegetation: salal, dull Oregon-grape, red huckleberry, Alaskan blueberry</p>	148,361 ha (74.8%)
<p>CDFmm Coastal Douglas-fir Moist Maritime</p>	<p>Distribution: Low elevations along southeast Vancouver Island from Victoria to Bowser Elevation: Sea level to 150m Climate: Warm, dry summers and mild, wet winters Tree Cover: Douglas-fir arbutus, Garry Oak Vegetation: salal, dull Oregon-grape, ocean spray, baldhip rose, snowberry</p>	42,737 ha (21.5%)
<p>MHmm1 Windward Mountain Hemlock Moist Maritime</p>	<p>Distribution: High elevations on Vancouver Island Elevation: 800 to 1350m Climate: Long wet and cold winters and short cool moist summers. Can have a substantial snowpack until July Tree Cover: amabilis fir, mountain hemlock, with some yellow cedar Vegetation: Alaskan blueberry, oval leaved blueberry</p>	4,969 ha (2.5%)

There are three other minor BEC Zones in the AOI: CWHmm1 - Submontane Moist Maritime Coastal Western Hemlock (1,239ha, 0.6%); CWHmm2 - Montane Moist Maritime Coastal Western Hemlock (1,067ha,0.5%); and CmAunp- Coastal Mountain-Heather Alpine (55ha, 0.0%).

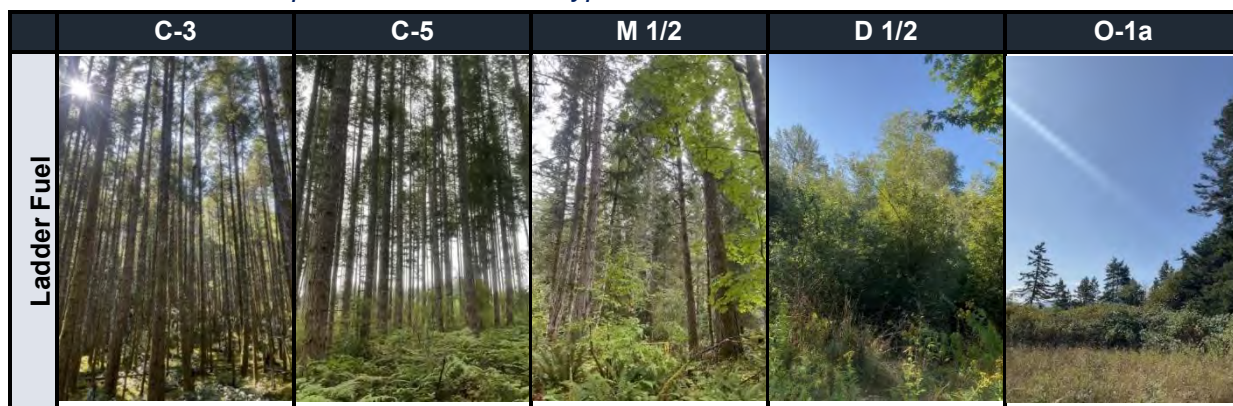
The Canadian Forest Fire Behavior Prediction (FBP) System⁴⁵ provides a quantitative estimate of potential fire spread rates, fuel consumption, and fire intensity, along with detailed fire characteristics. The system classifies vegetation into different fuel types, each potentially influencing fire behavior differently.

At each of the field plots established to collect wildfire threat data, the fuel type was noted. The majority of the Crown Land in the WUI is within the C-5 (30%) and deciduous forest types (37%). There were three fuel types that were evaluated in the field that were not consistent with the provincial data set, fuel type revisions were from D ½ to C5 and C-5 to C-3. Refer to Appendix E: Wildfire Assessment Plots for more information.

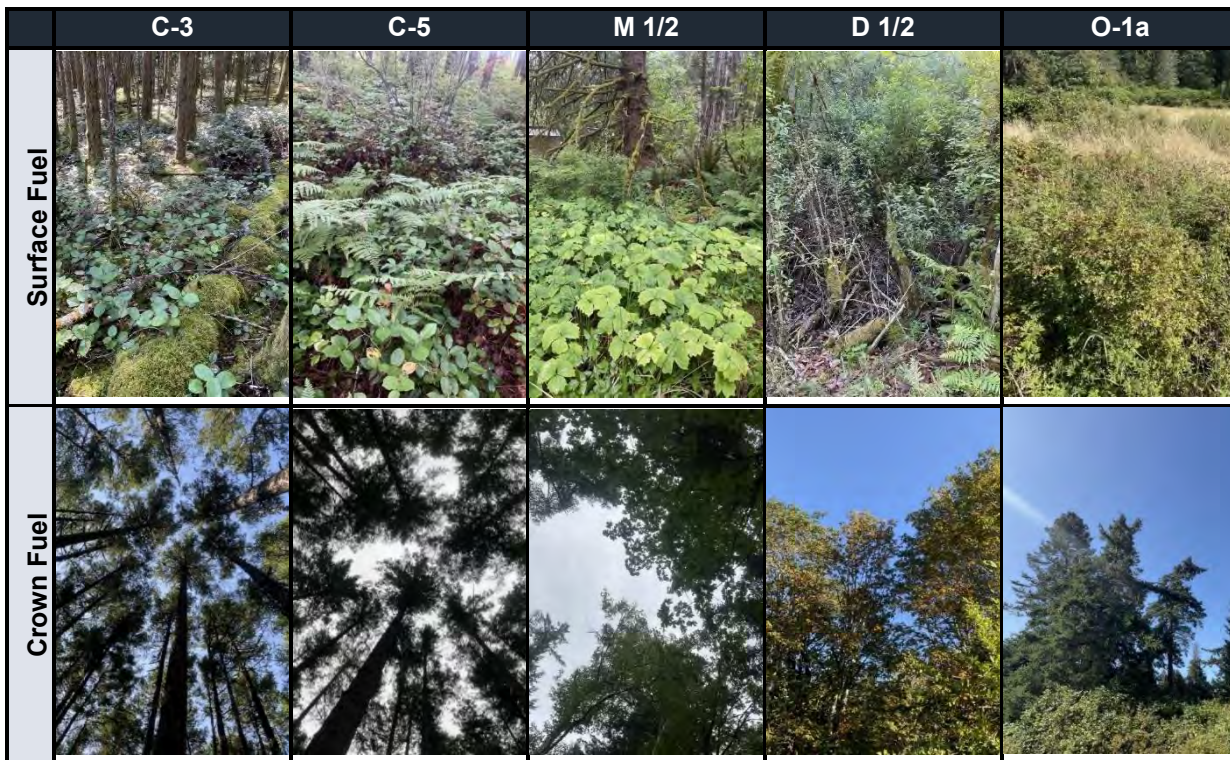
Table 11: Summary of fuel types within the WUI.

Fuel Type	Description	Area within WUI
C-3	Immature conifer-dominated stands with high stem densities, typically under 40 years old and less than 15 meters tall. Indicative of moderate to high fire intensity.	1,538 ha
C-5	Mature, low to moderate density Douglas-fir, western hemlock, and / or western redcedar stands typically over 40 years old and over 15 meters tall with high crown base heights. Surface fires with occasional torching.	25,121 ha
C-7	Open, park-like mature coniferous stands with low canopy closure (<50% overall) where the forest floor is dominated by perennial grass and herbs. Indicative of surface and crown fire potential in dry conditions.	33.4 ha
M-1 / M-2	Mixed deciduous and coniferous stands (15 – 75% coniferous and deciduous composition). M-1 (leafless) indicative of moderate fire behavior can transition to crown fires. M-2 (green) reduced fire potential with seasonal green leaves.	12,242 ha
D-1 / D-2	Deciduous stands (<25% coniferous composition). Fire potential similar to M type.	18,446 ha
S-1 / S-3	Recently harvested areas where ground cover is predominantly logging slash (typically one or two years old). Indicative of variable fire behavior depending on moisture.	110 ha
O-1a	Grassland fuel types. Also represents large lawns and agricultural fields. Indicative of rapid spread, higher flame lengths.	1,428 ha

Table 12: Photo examples of common fuel types in the WUI.



⁴⁵ Canadian Forest Fire Behavior Prediction (FBP) System



The forest types are fragmented throughout the WUI with a mix of different stand ages from a range of different management strategies, historic use and current land use with interspersed infrastructure. PMFLs and woodlots surround the communities and have a range of forest harvesting activities.

All private forest landowners and Crown tenure holders are subject to the *Wildfire Act* and *Wildfire Act Regulations*, and must comply with these requirements for fire prevention, fire control, and open fires⁴⁶. However, forest harvesting activities can leave varying volumes of coarse woody debris along the landscape which can influence fire intensity and spread rate. Also, regenerating stands are not managed at a stand level with the objective of fuel reduction (i.e., pruning is not a common practice).

PMFLs have a vested interest in protecting their timber values from wildfire, and reduce the risk by limiting access (e.g., gates and signage) and with increased monitoring (e.g., Mosaics completes aerial observation flights through the summer).⁴⁷

BCWS has identified the slash management practices in woodlots as being a concern which has been identified as an area of improvement for woodlots north of the AOI by the Forest Practices

⁴⁶ [Private Managed Forest Land in British Columbia – Frequently Asked Questions](#)

⁴⁷ [Mosaics Wildfire Fact Sheet](#)

Board.⁴⁸ Note that the auditors did not identify any concerns with fire protection activities in the woodlot licence W0085 located in Union Bay.⁴⁹

There were several field observations and discussions around the increased prevalence of tree mortality related to cedar dieback, grand fir and pine mortality, particularly on Denman and Hornby Island the southern areas of the Town of Comox and the prevalence of root rot throughout the AOI. This may be attributed to stress from climate change.

Topography

The Comox Valley's topography from past glacial activity transitions from coastal plains and river valleys to forested hills and rugged mountains, creating a varied landscape. The area is bordered by the Salish Sea to the east, featuring low-lying coastal plains that are characterized by gently sloping terrain, sandy beaches, and estuaries like the Comox Estuary, where the Courtenay and Puntledge Rivers meet the ocean.

To the west, the topography rises into the rugged peaks of the Beaufort Range, part of the Vancouver Island Ranges. Notable peaks include Mount Washington (1,588 meters), a popular ski destination, and Mount Albert Edward (2,093 meters), located within Strathcona Provincial Park. The mountainous areas are characterized by steep slopes, alpine meadows, and includes the Comox Glacier. Between the coastal plains and the mountains lie rolling hills covered in temperate rainforests, which are interspersed with creeks, small lakes, and wetlands, providing important habitats for wildlife.

In Cumberland, there are the mine tailings from the old coal mines around Cumberland (i.e. along Lake Trail Road, east end of Comox Lake) should be considered during any wildfire suppression activities as once wildfire gets into the tailing's suppression can be very difficult. The tailings along Lake Trail Road once burned for 25-30 years until it was eventually dug up.

The AOI includes Denman Island and Hornby Island, part of the Northern Gulf Islands, which feature rocky shorelines and lush forests.

4.3 Risk Framework

Different risk assessment methodologies evaluate hazards based on scale, environment, and specific risks, and can be tailored to develop effective mitigation strategies.

At a provincial level the BC Wildfire Service has developed a WUI Risk Class Framework with Maps that identifies at-risk areas at a strategic scale for Crown land⁵⁰. This framework classifies the AOI as a level five, which is the lowest relative risk. **However, this framework does not account for the 17.4% of PMFL in the WUI, which the province does not have access to the forest cover data.** This framework incorporates information from the Provincial Strategic Wildfire

⁴⁸ [2023-2024 Forest Practices Board Annual Report](#)

⁴⁹ [Woodlot Licence W0085 Forest Practices Board Audit](#)

⁵⁰ [Wildland Urban Interface Risk Class Maps](#)

Threat Analysis (PSTA). The purpose of the PSTA is to evaluate and map the wildfire threat present to values across the landscape in British Columbia. These values could be considered either man made community infrastructure or features that have social, economic, or environmental value.⁵¹ Datasets from a wide range of wildfire threat elements were input into modelling tools to produce threat maps that indicate the relative threat. This map can be used to identify areas to complete plots to quantify the threat class. Of the Crown land area that is available for the assessment in the WUI, the majority is a moderate wildlife threat.

Table 13: PSTA within the AOI from the provincial database.

PSTA	Description	Area (ha)
Extreme	Extremely dry forest fuel, new fires will start easily, burn vigorously; all aerial fuel will be engaged in the flaming front. Most fuel in the organic layer will be consumed and larger dead fuel will be consumed in the smoldering combustion.	46
High	Forest fuels are very dry, new fires may start easily, burn vigorously; aerial fuel will be engaged in the flaming front. Most fuel in the organic layer will be consumed and larger dead fuel will be consumed in the smoldering combustion.	2,758
Moderate	Forest fuels are drier and there is an increased risk of surface fires starting. There will be involvement of the organic layer, but larger dead material will not readily combust.	13,365
Low	Fires may start and spread slowly. There will be minimal involvement of deeper fuel layers or larger fuels.	14,569
No Data (Private Land)	Information not available for assessment.	35,518
No Data (Private Managed Forest Land)	Information not available for assessment.	104,492
Water	No Risk.	81,166

At a regional level, the current Comox Valley Emergency Plan (2018) includes an HRVA that ranks wildfires fourth in the high value resources or assets after earthquakes, floods, and power outages. This plan is under review and will be updated to align with *EDMA* as new regulations become available from the province and a new HRVA. This CWRP will also support informing the update of this plan and wildfire risk assessment.

At a site-specific level, the 2018 CWPP completed a spatial analysis and classified the Fire Risk Class in the AOI as 30% low, 50% moderate and 20% high. Provincial database updates from 2018 include additional C-3 forest type areas (immature conifer-dominated stands with high stem densities) and the identification of some extreme PSTA area. This could be attributed to an increased wildfire threat to the Comox Valley.

A specific risk assessment methodology or analysis was not utilized in this plan; however, it does focus on wildfire risk reduction activities to:

⁵¹ 2020 Wildfire Threat Assessment Guide

- Reduce the likelihood of a fire occurring and create access and defensible space for fire suppression.
- Reduce wildfire intensity and associated fire behaviour.
- Reduce the impacts of the fire to green spaces, values at risk and culturally significant sites.

4.4 Local Wildfire Threat Assessment

Wildfire threat assessment plots were completed, in accordance with the Wildlife Threat Assessment Guide⁵², to determine a fuel assessment rating (which aligns with PSTA ratings). The field worksheet focuses on the forest fuel availability based on the progression of a wildfire from a surface fire (organic and surface fuels involvement) to a passive crown fire (organic, surface and ladder fuel involvement) to an active crown fire (all fuel involved), as follows:

- **Ground Fuel** - The depth of the organic material in the soil influences the fire's rate of spread.
- **Surface Fuel** - Are typically the initial ignition source and where the flaming front is sustained. Surface fuels are smaller diameter (<7cm) woody debris that can lead to the initial spread of the fire. Large accumulations of coarse woody debris (>7cm) can contribute to sustained high intensity fires.
- **Ladder Fuels** – Are large wood shrubs, branches, and understory trees that bridge between the surface fuels and the crown. Dense ladder fuels deliver combustion to the crown fuel.
- **Crown Fuels** - Are the foliage, branches and debris within the canopy which produce the highest intensity fire burn rates due to the increase in wind exposure. Dense crown fuels with high connectivity increase the spread rate and spotting potential.

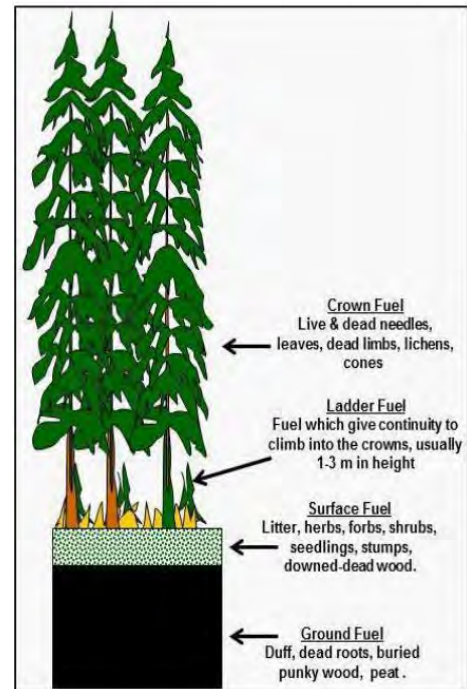


Figure 5: Forest Stand Layer and Fuel Descriptors.

To gain an understanding of the surrounding forest compositions and fuel types and associated threat layers in the WUI, an initial round of field plots was completed on Crown land. Although a plot is required to determine the threat rating, the following forest types have generally been associated with a high or moderate threat rating in the WUI:

⁵² 2020 Wildfire Threat Assessment Guide

- High Threat– Hemlock, amabilis / grand fir and cedar dominated stands in the CDF BEC zone, the findings consistently indicated that these stands consistently had a high threat rating.
- High Threat – Douglas-fir dominated stands with age class two to three (21-40, 41-60 years) with a crown closure of six or higher (>56 %), where the canopy is close together (high horizontal connectivity) and the ladder fuels reach the ground (0-1m fuel gap). Note that stands in age class one (0-20yrs) may act to effectively reduce fire behaviour potential however an assessment of residual slash / ground fuels would need to be completed to determine the threat.
- Moderate Threat - Douglas-fir stands that were >60 years old (age class 4 and above) and had a crown closure of 4 or higher (>36%)

Wildfire threat assessment plots were then focused on parcels owned, leased, or otherwise maintained by the CVRD, Courtenay, Comox, and Cumberland and K'ómoks treaty settlement lands. Given the size of the AOI, plot locations were prioritized based on the PSTA layer or, where no data existed, an assessment of imagery to determine the potential fuel threat based on the forest types listed above. Plots were also completed in areas identified as a value at risk (e.g., parks with high or moderate natural asset rating) or areas with high use or other public concerns.

The goal of these site visits was to assess the wildfire threat, ground-truth the PSTA data, confirm values at risk, and identify feasible potential fuel treatment areas. Refer to Appendix E: Wildfire Threat Assessment Plots for detailed information and photos.

5. FireSmart Disciplines

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.

There is a well-established regional Comox Valley FireSmart Resilience Committee (CVFSR) in place which is supported by Comox Valley Emergency Management (CVEM) and provided administrative and fiscal support from CVRD. The regional model objective is to provide multijurisdictional collaboration toward mitigating a known risk that will impact all Regional Partners.

Several public education and outreach efforts have been completed, which include:

- Partnering FireSmart Program with the CV Neighbourhood Emergency Preparedness Program (NEPP)
- Providing informational materials, including brochures, newsletters, videos, posters, social media, and websites.⁵³
- Participating in community events, such as field tours, workshops, trainings, lunch and learns, Emergency Preparedness week and Wildfire Community Preparedness Day.
- Local Fire Department routinely complete door-to-door site visits.
- Distribution of frequent media releases and public service announcements
- Establishment of the regional emergency alert system (Connect Rocket)⁵⁴

Residential FireSmart Home Ignition Zone Assessments (HIZ) are ongoing, by either the Local FireSmart Representatives from the local fire departments or a consultant. Gaining community support for the program is challenging due to misconceptions that residential FireSmart initiatives require land clearing and / or a lack of perceived wildfire risk for coastal ecosystems.

There has also been a dedicated effort to engaging neighbourhoods to be FireSmart which include:

- Martin Park Drive (Black Creek) designated FireSmart Recognized Neighbourhood (2019, 2020)

⁵³ [FireSmart™ | Comox Valley Regional District](#)

⁵⁴ [Emergency Notification System | Comox Valley Regional District](#)

- Neighbourhood assessments in progress for Dove Creek / Wildwood Road (Courtenay) & Camp Road (Cumberland)

Recommendations

Increase the transparency of the FireSmart Program (Action Item 1).

- The CVFSR, with support from CVEM, undertake several activities related to wildfire preparedness and risk reduction annually (e.g., HIZ Assessments, chipping programs, inter-agency drills, training, meetings, etc.). This information has not been consistently communicated to the Regional Partners. Regular updates (e.g., quarterly) and annual reports summarizing all the activities would inform the Regional Partners and could be shared to staff to promote awareness of the program.

Continue, increase and align public FireSmart Program awareness campaigns (Action Items - 2-5).

- There is information regarding the FireSmart Program on each of the Regional Partner's and local Fire Department webpages. The information is not standardized and there are opportunities to better align the messaging to be consistent amongst the platforms. Aligned messaging promotes public awareness across the region. Webpages should be continually updated and highlight program successes.
- Continue to organize, host and support FireSmart events in the communities, including Wildfire Community Preparedness Day.
- Except for the fuel treatment in progress on Hornby Island, there have not been any recent fuel threat reduction treatments in the Region. There is uncertainty in the communities, and among the Regional Partners, about how the prescription process works and how the forests will appear after any fuel reduction treatments. Given that fuel treatments are based on a calculated reduction of fuel loading factors dependent on the original fuel loading of the forested stand, and the forests on Vancouver Island generally do not have higher levels of fuel loading, treatments may not require intensive fuel reduction activities. As such the treatments can be designed to mimic more of a natural stand succession process that may be better described with a different term (e.g., stand tending). This concept, including terminology, should be developed that best emphasizes the nature of fuel treatments on Vancouver Island (i.e., includes the multifaceted goals of fuel treatments, that go beyond fuel hazard risk reduction to include ecological, cultural, and community-centered considerations), that can be better understood by the public. This should be incorporated into education campaigns, including signage, social media and linked to location based treated areas.

- Feedback mechanisms, such as public surveys, can assist with assessing community knowledge, identifying gaps in preparedness, and improving wildfire education efforts. They can help gauge public perception, inform future FireSmart initiatives, and ensure that wildfire mitigation strategies align with community needs. As there have not been any public surveys completed to date, it could be a useful mechanism for public awareness and support and to record knowledge holding.

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.

Incorporating measures to promote wildfire preparedness, such as integrating FireSmart principles and fuel management practices, into legislation and planning documents (e.g., by-laws and community plans) makes communities more resilient to increasing wildfire threats.

The key acts and regulations that may support or restrict the ability to implement community bylaws, in consideration of wildfire risk reduction and planning, which should be considered include:

- BC Building Act and Building Code
- BC Emergency and Disaster Management Act (EDMA)
- BC Local Government Act
- BC Open Burning and Smoke Control Regulation
- BC Parks Act
- BC Wildfire Act and Wildfire Regulations
- BC Forest & Range Practices Act
- BC Professional Governance Act
- Canada Federal Fisheries Act
- Canada Federal Species at Risk Act
- Migratory Birds Convention Act

The AOI is within the Vancouver Island Land Use Plan but does not overlap any resource management zones. There are several provincial, regional district and municipal parks and conservation areas in the AOI that have unique management plans. K'ómoks is in the process of developing land use plans for the treaty settlement lands. The Regional District and Municipalities have Official Community Plans, Strategic Plans, by-laws, and development permit requirements. Refer to Appendix C: Other Plans for relevant plans with any wildfire considerations.

Due to the detailed information specific to areas within the large AOI, it is recommended that relevant legislation, regulations and plans be reviewed when updating or developing by-laws or other plans.

Recommendations

Align burning restrictions and communications (Action Items 6-8)

- The conditions of the fire protection service by-laws vary regarding burning restrictions and permit requirements. Varying dates and rules may cause confusion among residents, especially considering the proximity of the communities. A collaboration of the Regional Partners in developing aligned updated by-laws will increase wildfire resiliency within communities. Note: For K'ómoks, IR1 is within the Comox Improvement District, IR 2 is within the Courtenay Improvement District and BCWS responds to the rest.
- There is information regarding the local burning restrictions and high-risk activity requirements on the Regional Partner's and local Fire Department webpages. Although there are guidelines related to when to activate sections of the regional communications plan, there are opportunities to better align / standardize the messaging to be consistent amongst the platforms. Aligned messaging promotes public awareness across the region. Webpages should be continually updated with the most current information.
- The BCWS provincial fire bans and restrictions may not always align with the local fire restrictions, including the use of campfires in BC Parks. When BCWS lifts provincial bans, there is messaging such as "always check with local government authorities for any other open fire restrictions"⁵⁵. This messaging is not always clear to residents, leading to instances where they burn despite local restrictions still being in place. BC Parks will allow campfires during periods of local fire restrictions if there are no provincial bans.

Include wildfire resiliency and risk reduction actions, including FireSmart Principles, in current and future by-laws and plans (Action Items 9-12).

- During engagement, it was identified that there was a range of knowledge regarding FireSmart Principles and wildfire risk reduction actions within the Regional District and Municipal departments. Hosting targeted information sessions or distributing FireSmart materials will enhance the successful integration of these principles into local planning documents and policies.
- Cumberland's fire protection by-law (Bylaw No. 988, 2014) includes the implementation of wildfire resiliency actions related to debris management and the closure of public use areas. The debris management actions are limited to properties that are undertaking land clearing or development activities or otherwise altered the landscape. This by-law should be updated to address the mitigation of properties that are not actively being developed but have a high fuel threat rating or conditions posing a wildfire risk (e.g., a young, dense forested stand

⁵⁵ Fire Prohibitions and Restrictions

adjacent to a senior’s complex). The Regional Partners should collaborate to update other fire protection service by-laws to include aligned wildfire resiliency actions.

- It is recommended that a review of all applicable bylaws and plans (including any K’ómoks land development plans being drafted) be undertaken in collaboration with a qualified professional to determine if bylaws are sufficient to mitigate wildland interface fire hazards and to incorporate FireSmart principles. An example would include tree removal by-laws, parks or urban forest management plans which may inadvertently promote conditions that may contribute to fire spread.
- Watershed plans can enhance wildfire resilience by protecting water quality, infrastructure, and ecosystems from fire impacts like erosion and contamination. The Comox Lake Watershed Protection Plan includes a wildfire risk assessment and includes 11 recommendations applicable to wildfire risk reduction. The Oyster River and Union Bay (Langley Lake) do not currently have current watershed plans and are located predominantly in PMFL’s. Consideration can be given to creating a Drinking Water and Watershed Protection Program similar to the Regional District of Nanaimo⁵⁶ and Cowichan Valley.⁵⁷

Incorporate FireSmart landscaping and invasive species management in current and future by-laws and plans (Action Items 13-16).

- Plants that include high resin, oil, or dry foliage content can ignite easily, burn intensely, or contribute to wildfire spread like cedar or invasive plants like scotch broom. FireSmart BC offers an extensive list of fire-resistant plants and information⁵⁸. There are references to FireSmart landscaping in the Regional Partner’s plans (e.g., Comox Climate Resilient Landscaping Standards), but there is not a standardized list of species for the region. A list of FireSmart, climate adapted, and native species should be created to inform Regional Partner’s as a part of planning, development, planting programs, tree or other by-laws and to inform landscaping requirements or projects.
- The Regional Partners are proactively managing invasive species though several individual plans and mechanisms (e.g., Comox Valley Regional District Weed Control Regulation Bylaw No. 764, 2024⁵⁹), however there is not a standardized list of species for the region. A standardised list of noxious weeds should be developed and considered in the Regional Partner’s applicable by-laws and plans.

⁵⁶ [Nanaimo RD Drinking Water and Watershed Protection Program](#)
⁵⁷ [Cowichan Valley RD Drinking Water and Watershed Protection Program](#)
⁵⁸ [FireSmart BC Landscaping Hub](#)
⁵⁹ [Comox Valley Regional District Weed Control Regulation Bylaw No. 764, 2024](#)

- Public education campaigns (e.g., website, social media, radio ads etc.) should be conducted to inform residents about the standardized list of preferred FireSmart plants in the AOI. This campaign could be paired with information regarding noxious weeds.
- The FireSmart Plant Program⁶⁰ is an initiative designed to help homeowners and communities select fire-resistant plants to enhance wildfire resilience. By collaborating with local garden centres and nurseries, the program provides FireSmart Plant Tags that identify plants less prone to ignition, making it easier for individuals to make informed landscaping choices. The Regional Partner's should consider initiating a plant program in the AOI.

⁶⁰ FireSmart Plant Program

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.

The predicted population growth in the Comox Valley (31%) with development being pushed into more rural areas (expanding the WUI) by community expansion and rising sea levels. Strong development planning reduces wildfire risk by integrating FireSmart principles, fire-resistant materials, defensible space, and safe evacuation routes. It ensures emergency access, infrastructure protection, and proactive hazard mitigation, making communities more resilient. Creating development permit areas for wildfire protection is a balance between the protection of the natural environment and the protection of development from hazardous conditions (i.e., wildfire).⁶¹

The Regional Partners have official community plans or other development plans in place as follows:

- **K'ómoks First Nation Comprehensive Community Plan:** Focuses on goals for emergency preparedness and response. It does not include specific policies for wildfire risk mitigation in new developments.
- **Rural Comox Valley Official Community Plan (Bylaw No.337):** The plan defines interface fire hazard areas and sets fire management policies for new subdivisions. In rural areas, applicants must submit a professional report on wildfire risk mitigation. It also recommends FireSmart guidelines and creating defensible space.
- **Mt. Washington Integrated Resort Community Plan:** Outlines the risk of wildfire for the community and the need for enhanced fire response capacity, it does not include robust wildfire mitigation strategies for new developments. However, it does require that all landscape plans be “FireSmart” and identifies that official FireSmart recognition is a goal for the community.
- **City of Courtenay Official Community Plan (Bylaw No.3070):** Requires that new development applications include wildfire hazard risk information when the proposed development is adjacent to a significant forested area. This is to allow the city to assess the contribution of development to wildfire risk and mitigate the risk of wildfire to development.

⁶¹ Local Government Act S. 488 (1) a, b

- **Town of Comox Official Community Plan (Bylaw No. 1685):** Identifies Forest fire as a risk that should be considered in new developments in the Hazardous Area DPA but does not include specific measures to mitigate the risk. This plan is currently being updated.
- **Village of Cumberland Official Community Plan (No.990):** This plan outlines the Council's goal of reducing wildfire risk through strong policies for wildfire-prone lands. The Bylaw designates the Wildland Urban Interface as Development Permit Area (DPA 4), requiring a Wildfire Assessment for new developments with recommendations on mitigation strategies for identified fuel hazards. Additionally, the Bylaw requires specific FireSmart Manual, BC Edition, 2004 guidelines to be followed for developments in DPA 4. For example, this requires that buildings be constructed with fire-resistant and / or non-combustible materials, and that vegetation and fuels be cleared, thinned, or pruned in accordance with recommendations for Priority Zones 1, 2 and 3, among other requirements. The Bylaw also sets requirements for fire control and evacuation access, setbacks between new buildings and forested areas, and timing of construction.

The official community plans for both Hornby Island and Denman Island are exceptions to those noted above, as they distinctly lack policies to mitigate wildfire risk in new developments. Instead, policies reflect the Island Trust's 'preserve and protect mandate, as follows:

- **Hornby Island Community Plan:** Recommends that the protection of the island from fire hazard be considered when developing land use regulations, it requires that screening and natural landscaping be maintained on all parcels and along lot lines to maintain neighbourhood views.
- **Denman Island Community Plan:** Prioritizes the maintenance and protection of natural ecosystems and wildlife habitats in all developments.

Also, over 1,100 hectares within the AOI are owned or managed by non-profit conservation organizations dedicated to restoration and conservation efforts to protect biodiversity, species at risk or other values.

These conservation areas have covenants / management plans that can restrict active management activities, such as fuel treatments. There are examples that have provisions allowing work to be completed to prevent wildfire, floods or other disasters (e.g., CCFS). These works would still require review and authorization from the covenant holder to ensure that the natural values in the area are not negatively impacted.

Recommendations

Create Wildfire Development Permit Areas (Action Items 17-19).

- Establish Wildfire Development Permit Areas⁶² in community plans, in consideration of the protection of the natural environment. Community plans should also include requirements based on FireSmart Home Initiation Zone and Priority Zones, FireSmart building materials and the implementation FireSmart landscape design recommendations. Where possible, the development permit and FireSmart requirements should be aligned between the Regional Partners.
 - Development Permit Areas should be established for areas covered by the Rural Comox Valley Official Community Plan for wildfire hazard protection upon review of wildfire risk to rural areas to reduce ambiguity in the current by-law.
 - Since 2004, FireSmart BC has had several updates including reducing the distance of the priority zones. Cumberland should review their Community Plan and update to the most current FireSmart principles.
 - Development Permit Areas should be established in the jurisdictional boundaries of Courtenay for wildfire hazard protection upon review of wildfire risk to Courtenay.
 - The 2025 Comox Community Plan should consider wildfire resiliency strategies. Development Permit Areas should be established in the jurisdictional boundaries of Comox for wildfire hazard protection upon review of wildfire risk to Comox.
 - Wildfire development requirements should be established prior to the development of K'ómoks treaty settlement lands.
 - The resort community of Mt. Washington should consider including guidance based on FireSmart Home Initiation Zone and Priority Zones.
 - Denman and Hornby Islands, where there is no other policy to mitigate wildfire risk, the requirement to use FireSmart building materials and to implement FireSmart landscape design recommendations should be implemented.
- Create standardized Terms of Reference for the Regional Partner's to provide to development applicants who are required to provide a wildfire risk assessment report by a qualified professional as part of development approvals in rural electoral areas. The document should be updated if / when standardized wildfire DPAs are established.

⁶² FireSmart Wildfire Development Permit Areas

- Consider completing wildfire exposure or other wildfire risk mapping to inform the location of high-risk development areas.⁶³

Inventory and review conservation area plans (Action Items 20-21).

- In addition to the conservation areas that are on publicly available data sets, there are private properties that are subject to covenants. For example, the CV Land Trust has covenants on ecologically significant private residential and other properties. The CVRD should consider developing a database of all lands under a registered land title covenant in the Regional District, with information from the CV Land Trust, the Nature Trust of BC, and any other identified conservancies. Mapping protected areas identifies wildfire risks, firebreaks, and conservation priorities, ensuring effective mitigation and response.
- The mandates of conservation areas are to protect ecologically significant areas. Public feedback highlighted fuel hazards (e.g., use of wood chips in trails or dense forests, or fuel hazards related to younger stands) or fire department access concerns along boundaries shared with urban neighbourhoods. In collaboration with the covenant area holders / managers (e.g., the CV Land trust and Cumberland Community Forest Society) review the covenant land titles (Section 219) to determine if works related to wildfire prevention can be permitted, with the required approvals.

⁶³ CRD Electoral Area Wildfire Exposure Maps

5.4 Interagency Cooperation

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

EDMA, replacing the *Emergency Program Act* in November 2023, promotes interagency collaboration by enabling coordinated planning, resource sharing, and unified responses, enhancing BCs disaster resilience. Since wildfires, and other natural hazards, transcend administrative boundaries, interagency cooperation is crucial for wildfire resilience as it ensures coordinated responses, resource sharing, and strategic planning across jurisdictions. Resilience is based on relationship building and a shift from reactive to proactive.

Recommendations

Continue the Regional CVFSR Committee and initiatives (Action Items 22-25).

- There is a well-established regional CVFSR that has representation from all the municipal fire departments, rural fire departments, CFB Comox fire services, K'ómoks and CVEM. Regional FireSmart committees are key to enhancing wildfire resilience by coordinating risk reduction, resource sharing, and strategic planning among local governments, fire departments, and communities. The committee meets regularly and invites guest speakers to provide updates on projects and other wildfire resiliency initiatives. Maintaining the regional CVFSR committee should continue. **Provincial core funding is required to ensure sustainable administrative and staffing support to maintain this committee and all the associated initiatives.**
- Attendance at the Community FireSmart and Resiliency Committee Meetings in adjacent Regional Districts can provide important learning and information sharing opportunities for similar communities. An example is the Strathcona Regional District, who sends a representative to the CVFSR meetings.
- Members of the CVFSR or other individuals involved in community wildfire resiliency activities should continue to attend the Wildfire Resiliency and Training Summit.
- A focus for the Committee would be to establish a monitoring program for the implementation and success of this CWRP.

Continue to foster collaboration, information sharing and response planning with other agencies and landowners (Action Items 26-34).

- The Ministry of Forests Wildfire Risk Reduction Coordinators from the two areas that are within the Regional Partnership are very engaged and responsive to requests for support. There is a WRR funded project fuel reduction project currently occurring on Hornby Island. Engage with the Ministry of Forests Wildfire Risk Reduction Coordinators, to explore joint projects and wildfire risk reduction funding opportunities. Funding for fuel treatments on K'ómoks treaty settlement lands, should be coordinated with the First Nations' Emergency Services Society and the MoF WRR Coordinators. This includes advocating for an online repository showcasing successful grant-funded projects to help First Nations and local governments learn from each other's experiences.
- Wildfires require coordinated efforts, with BCWS planning its response reactively at the time of an incident using their internal GIS data (that does not include provincial layers) and Emergency Operations Center support. Given the diverse values at risk in the AOI, Regional Partners, including K'ómoks, may lack resources to provide necessary information or operational support upon short notice. Regional Partners and Interest holders emphasized the need for proactive information sharing with BCWS to pre-plan wildfire strategies and firebreaks, fostering collaboration. Priority should be placed on building the relationship with the Mid Island Fire Zone, who requested that equipment lists, and water source locations be shared between the local fire departments and BCWS for Denman and Hornby Islands. Another priority would be to map out the locations of tailings from the old coal mines in Cumberland for consideration during response planning.
- Coastal ecosystems have difficult and steep terrain with large trees and potentially limited water. For example, on Denman and Hornby Islands, deploying hose lays in steep forested areas can be challenging unless the fire is near the shoreline. A functional training exercise on the Islands would help wildfire crews familiarize themselves with the terrain and improve emergency response strategies. Training exercises could also be done in the forests of the Comox Lake watershed (e.g., Village of Cumberland Forest Lands), which has the same topography as Cameron Bluffs, which had a fire that spread to 229ha and isolated communities.
- CFB Comox Fire provides critical wildfire response support, especially with regards to any airplane related incidents. It is also only one of two airports in the country that also includes civilian airspace and operations. Strong communication between municipalities is required to allow for quick response when the emergency is within proximity to the base. A simulated emergency response exercise involving an airplane crash could be conducted to enhance communication and response actions.

- Additional assessments were completed on Federal Lands which included the Seal Bay Armory and the military houses (barracks). The neighbourhood with the barracks, which is near the airbase, borders a track of forested lands that connect into the Crown Isle Resort and Golf course. The neighbourhood has single access routes. BCWS identified that the southeast wind tunnels that occur at the airport pose a significant threat. If the fuel is not managed (i.e., grass kept short) a plane crash could create embers that will take off into the adjacent community. The CVFSR should support the CFB Comox Fire service in advocating for fuel reduction treatments on the airport and the barracks neighbourhood forest.
- Also, there is an established cooperative relationship between CVEM and the utility companies, Telus and Fortis BC, which includes their participation in wildfire response drills opportunities. Fortis would like to continue with these drills and / or participate in other response scenarios.
- With the increased prevalence of tree mortality related to dieback and root rot, BC Parks should consider completing a detailed fuel threat assessment in the Parks, particularly on Denman and Hornby Islands. The 20–30-year-old stands in the Denman Island Park and possible embers from Strathcona Park were concerns raised during the engagement. This action could also be informed by the results of the WRR reports when available.
- Continue to request collaboration from agencies that are critical for wildfire resiliency planning (e.g., BC Ferries and Emergency Management and Climate Readiness). CVEM should advocate for BC FireSmart Committee representation from Emergency Management and Climate Readiness's Legislation and Policy officials who understand the EDMA, to improve alignment between FireSmart funding and EDMA-related funding programs. The Regional Partners should also continue to engage with Emergency Management and Climate Readiness, prior to a wildfire event, to review expectations, liabilities and funding regarding post-wildfire natural hazards risk analysis⁶⁴ and how property owners and residents should be informed of risks.
- Continue to request PMFLs (17.40% of the WUI) to actively engage and share information to develop a comprehensive understanding of the local wildfire threat in the WUI.

⁶⁴ [Post wildfire natural hazard risk analysis - Province of British Columbia](#)

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.

The FireSmart Community Funding and Supports (FCFS) program fund supports a range of training opportunities for FireSmart positions and for cross training opportunities that range from basic fire suppression to structure protection and include training on the basic concepts of the Incident Command Structure. The most current FCFS guide should be referenced for the list of courses eligible for funding.

Recommendations

Continue the support for FireSmart staff positions and cross-training opportunities (Action Items 35-37).

- There was consistent feedback from Regional Partners and the CVFSR, related to having FCFS-CRI to provide sustainable core funding for staff positions dedicated to FireSmart initiatives and wildfire risk mitigation. The current contract-based or grant-to-grant approach does not foster strong relationships, and valuable verbal knowledge is lost when contracts end. A stable team supports education, funding management, and interest holder collaboration, preventing disruptions in wildfire risk reduction and resilience planning. Focus should be less on the precision regarding job titles and tasks and more towards an openness regarding the achievement of wildfire risk reduction outcomes. Examples include:
 - Adding seasonal parks & groundskeeping staff to focus on vegetative debris management
 - Policy analysts to implement changes listed in CWRPs
 - Risk advisors
 - Dedicated trainers to expand expertise in fire adaptation
- The regional CVFSR and CVEM routinely have cross training opportunities, which includes emergency response personnel and Regional Partner staff. Continue with offering cross training opportunities, particularly in the rural areas with limited access to emergency response services (e.g., Mt. Washington, Hornby, and Denman Islands). Consideration should be given to proving operations staff (i.e., water, landfill, and other services) S100 in the event that a wildfire encroaches on key infrastructure. Include Emergency Management

and Climate Readiness's Exercise & Training staff in the conversations regarding training, exercises, ICS capacity development, etc. to holistically advance cross-sector training.

- Continue to provide Local FireSmart Representative training opportunities for the Fire Department members to facilitate the completion of additional FireSmart Home Ignition Zone Assessments and Critical Infrastructure Assessments.

5.6 Emergency Planning

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

The Comox Valley Regional Emergency Program Public Plan outlines the level the high-level structure and organization required to effectively plan, prepare, coordinate response and recovery to emergencies within the Comox Valley. This plan is under review will be updated to align with EDMA as new regulations become available from the province. This CWRP, including the Wildfire Preparedness Conditions Guide, can inform the update of the plan.

Operational guidelines for emergencies and evacuations are coordinated at the site by first responder agencies and are internal to the Emergency Operations Centre (EOC) operations.⁶⁵ There is a Mutual Aid agreement between the Regional Partners Fire Departments (including Campbell River from the Strathcona Regional District and Canadian Forces Base Comox -19 Wing Comox) for emergency response support.

The following preparedness condition level table provides an example when developing local daily action guidelines based on expected wildfire conditions.

Table 14: Wildfire Preparedness Conditions Guide.

Fire Danger Rating	Preparedness Conditions
I LOW	<ul style="list-style-type: none"> All Community staff on normal shifts. Staff will update fire danger signs.
II MODERATE	<ul style="list-style-type: none"> All Community staff on normal shifts. Staff will update fire danger signs.
III HIGH	<ul style="list-style-type: none"> All Community staff on normal shifts. Daily detection patrols by staff. Regional fire situation evaluated. Daily fire behaviour advisory issued. Wildland fire-trained Community staff and EOC staff notified of Prep-Con level. Establish weekly communications with local wildland fire agency contacts. Hourly rain profile for all weather stations after lightning storms. Update fire danger signs.
IV EXTREME	<ul style="list-style-type: none"> Rain profile (see III). Daily detection patrols by Staff. Daily fire behaviour advisory issued.

⁶⁵ [Emergency Plans & Guidelines | Comox Valley Regional District](#)

	<ul style="list-style-type: none"> • Regional fire situation evaluated. • EOC staff considered for stand-by. • Wildfire Incident Command Team members considered for stand-by/extended shifts. • Designated Community staff: water tender and heavy machinery operators, arborist may be considered for stand-by/extended shifts. • Consider initiating Natural Area closures to align with regional situation. • Provide regular updates to media Services members/Community staff on fire situation. • Update public website as new information changes.
V FIRE (S) ONGOING	<ul style="list-style-type: none"> • All conditions apply as for Level IV (regardless of actual fire danger rating). • Provide regular updates to media/structural fire departments/park staff on fire situation. • Mobilize EOC support if evacuation is possible, or fire event requires additional support. • Mobilize Wildfire Incident Command Team under the direction of the Fire Chief. • Implement Evacuation Alerts and Orders based on fire behaviour prediction and under the direction of the Fire Chief.

Recommendations

Develop an aligned list of critical infrastructure (Action Item 38).

- With no clear provincial definition, local governments must identify critical infrastructure in emergency plans. Regional Partners are reviewing their priorities to align with the EDMA as provincial regulations evolve. Having a clear definition of critical infrastructure is important when it comes to response and recovery eligible costs, Disaster Financial Assistance program and consideration of the Community Emergency Preparedness Fund grants. Once there is clarity on the definition of critical infrastructure, one aligned list of critical infrastructure for all the Regional Partners must be developed and should be available in a spatial GIS layer as well and consider having it available in the CVRD iMap.

5.7 Vegetation and Fuels Management

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

Vegetation management is crucial for community wildfire resiliency planning. Natural fuel build-up is a part of forest succession, but it can pose problems in the wildland-urban interface if not addressed. Modifying vegetation is one of the best ways to enhance opportunities for effective wildfire suppression during emergency situations. Vegetation management can be completed at a landscaping level (i.e., first 30m around a structure), or in broader stand level fuel management treatments (i.e., 1 km of areas with a structure density class greater than 6).

FireSmart Landscaping (Residential and Critical Infrastructure)

Homes and structures are at risk of ignition for ember showers when the HIZ or Critical Infrastructure zones are not adequately maintained, and buildings lack fire-resistant materials. Reducing fuel load and modifying fuels in the HIZ, extending 30m from every home, is one of the most effective ways residents can safeguard their homes in the event of wildfire.

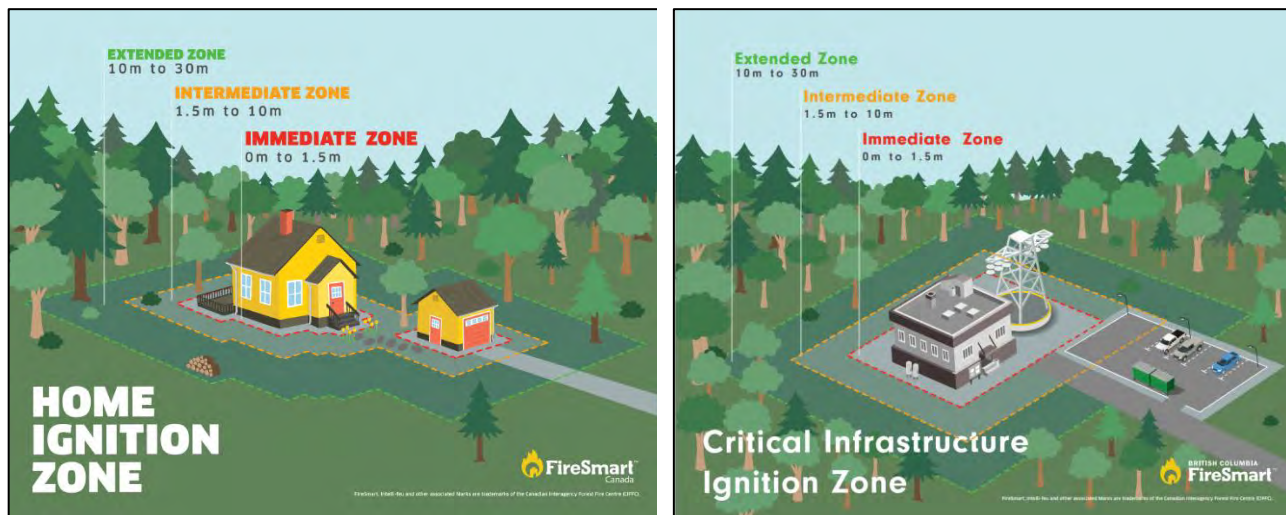


Figure 6: FireSmart home and critical infrastructure ignition zones.

Recommendations

Expand the FireSmart Landscaping (Residential and Critical Infrastructure) Programs (Action Items 39-42).

- Residential FireSmart HIZ Assessments are ongoing, by either the Local FireSmart Representatives from the local fire departments. . The Home Ignition Zone Assessments should continue to be supported by FireSmart funding, targeting neighbourhoods adjacent to larger tracts of forests (e.g., Private Managed Forest Lands) and communities that have constraints related to evacuation (e.g., Mt. Washington Alpine Resort, Forbidden Plateau and Denman and Hornby Islands). Assessments should be tracked for the CVFSR updates to be provided to the Regional Partners.
- Conduct a FireSmart Critical Infrastructure Hazard Assessment ⁶⁶ within the wildland urban interface. If the aligned list has not been developed, begin with the fire department buildings. Fire departments should lead by example. The goal is to complete assessments on all the infrastructure identified on the aligned list. Municipal and Regional District Buildings should be prioritized as they serve as leading examples of the FireSmart Program, given their vital role in public services. Assessments should be tracked for the CVFSR updates to be provided to the Regional Partners.
- Conduct fuel and vegetation management and other actions identified in the Critical Infrastructure Hazard Assessments, as required, and install FireSmart signage to increase awareness in the communities. Activities should be tracked for the CVFSR updates to be provided to the Regional Partners.
- Chipper programs support FireSmart by providing an efficient way to encourage residents to dispose of flammable vegetation, reducing hazardous fuels and lowering wildfire risk in communities. There have been several successful chipper programs completed by the Fire Departments in the WUI, with the chips being disposed of at licensed organic waste facilities. There are instances where the public has requested to keep the chips, which provides a FireSmart educational opportunity. This program should continue, with consideration for expansion.

Explore the FireSmart Cultural Sites and Green Spaces Program (Action Items 43-45).

- There are other opportunities for FireSmart activities, specifically the cultural sites and green spaces (e.g., gardens, cemeteries, greenways, boulevards, etc.) that are not currently being utilized. It is applicable for small spaces (< 3 ha) where there is no removal of trees greater than 2 meters in height and / or there is no disturbance of sensitive areas. A list of green spaces for assessments should be developed by the Regional Partners Parks or Archaeological Departments. Note K'ómoks may choose to complete cultural sites

⁶⁶ FireSmart Critical Infrastructure Hazard Assessment

assessments internally and keep them confidential. Appendix A: Regional Partner Summaries includes a list of the parks and treaty settlement lands assessed in this CWRP.

- Complete the assessments and determine if FireSmart activities are required. Areas should be reviewed for sensitive areas by the Regional Partners planning departments or a consultant. Activities include managing vegetation and implementing fire-resistant landscaping practices and specifically excludes routine maintenance activities. Where activities are determined to be required, develop a plan (e.g., priorities, timelines, etc.) for completing the activities and maintaining the space.
- Fuel and vegetation management and other actions identified in the assessments should be conducted. In public spaces, install FireSmart signage to increase awareness for the communities.

Fuel Management Treatments

Fuel management treatments typically consist of the manipulation or reduction of living or dead forest or grassland fuels to reduce fire intensity and increase suppression opportunities. Fuel treatments improve opportunities to mitigate negative impacts to life, values at risk, cultural values and resources, and natural resources. The objectives of the wildfire risk reduction activities, including fuel management, in this CWRP are:

1. Provide access and safe work areas for local Fire Department and other suppression crews.
2. Reduce the probability of fire occurrence.
3. Reduce the likelihood of fire spreading into the canopy.
4. Consider other land use objectives (i.e., succession or biodiversity).

Note: FCFS funding is applicable for treatment units within 1 km of areas with a structure density class greater than 6 but may be approved to extend further with solid rationale. Funding is not available for private land (i.e., owned by the CCFS or privately owned and under a Comox Valley Land Trust Covenant).

The WUI includes a diverse range of values at risk managed by the Regional Partners, either directly or indirectly (e.g., Cumberland Community Forest Society). These lands have diverse conservation and protection management objectives that may be impacted by fuel treatment activities. As such, a range of wildfire risk reduction activities are presented for consideration during the assessment of the treatment units the following table.



Figure 7: Signage posted in the lower perseverance corridor in Cumberland.

Note: The IER mandates that Indigenous communities, such as the K’ómoks Nation, be meaningfully consulted on land use and risk mitigation on their treaty settlement lands, ensuring their priorities are reflected in wildfire preparedness plans and risk reduction activities.

Table 15: Description of wildfire risk reduction activities proposed for the treatment units.

Activity	Description
Stand Tending	Fuel management should focus on the reduction of surface fuels (i.e., reducing the potential surface fire intensity levels below the critical level of 2,000kW/m), increasing the height to the live crown (i.e., to create a higher critical surface fire intensity threshold) and creating routes for safe access for responders (i.e., established wide and clear trails). Disposal of fuel materials post treatment can include removal or cut and scatter. Alternate options to burning (e.g., chipping) should be considered to address air quality concerns. A prescription prepared by a registered Forest Professional is required for these activities. When properly maintained, fuel treatments provide long-term effectiveness in reducing wildfire risk. Figure 8 provides additional information.
Removal of Invasive Species	Invasive plants that include high resin, oil, or dry foliage content can ignite easily, burn intensely, or contribute to wildfire spread like scotch broom.
Reducing Anthropogenic Risks	Restricting activities such as restricting campfires or motorized vehicle use and closing / gating areas after dark can reduce the probability of occurrence. Informational signage and education campaigns (e.g., social media) can also be used to raise public awareness. Consideration of the use of barriers or the closing of trails can also be used to protect sensitive ecosystems or enhance degraded areas. The Comox Lake Watershed Protection Plan provides good examples of measures to reduce anthropogenic risks.
Determining Natural Asset Ratings.	Regarding the wildfire risk score for Natural asset ratings, ratings are higher (higher scores = higher value asset) for areas with low fuel loads and natural fire resilience. Low fuel loads are commonly associated with flammability fuel types (e.g. D-2 deciduous or C7 high crown base height). Naturally fire resilient forests have species with thick bark and deep roots, an open canopy structure that reduces crown fire spread, and low fuel buildup (e.g., swamps, wetlands, deciduous forests). Consideration for tree / shrub planting alternate species with a focus on 100-year succession or for enhancing birds or other species at risk can also increase the rating.
No Action	Where fuel treatments would pose a significant risk to the objective (e.g., habitat for species at risk), a decision may be made not to implement a fuel reduction activity. This decision must be made in collaboration with the land manager, local fire department, applicable Regional Partner, forest professionals and other professionals, as required.

The use of cultural and prescribed fire was not included in Table 15, but could be considered as it was historically used by K’ómoks in areas such as the Tsolum River prairie to maintain the Garry Oak ecosystems.⁶⁷

Treatment Type	Description	FUEL TREATMENT PRINCIPLES			
		Surface Fuels	Ladder Fuels (crown base height)	Crown Fuels (crown spacing)	Fire Resilient Trees
Thinning from below	Cutting of entire trees (ladder and crown fuels). Requires secondary method to reduce surface fuels.	Increase	Decrease	Decrease	Increase
Pruning	Cutting both dead and living limbs (ladder fuels) from lower tree bowls. Requires secondary method to reduce surface fuels.	Increase	Decrease	No effect	No effect
Prescribed fire	Resource management open burning and broadcast slash burning. Often requires secondary method to change fuel arrangement to control flame length and crown fire initiation.	Decrease	Decrease	No effect	Increase
Cut, pile, and burn	Cutting and piling of non-merchantable stems and surface fuels that are then burned.	Decrease	Decrease	No effect	No effect
Cut and scatter	Cutting and scattering or cutting, chipping, and scattering of ladder fuels and surface fuels that are then left on site to decompose.	Conversion (temporary increase)	Decrease	No effect	No effect
Cut, chip and haul away	Cutting and chipping into a truck for offsite disposal.	Decrease	Decrease	No effect	No effect
Mastication and Mowing	Excavator mounted mowing/slashing/grinding of standing stems up to practical size limit that scatters debris on site to decompose.	Conversion (temporary increase)	Decrease	No effect	No effect
Grazing	Allowing livestock to graze and consume fine fuels.	Decrease (only edibles)	No effect	No effect	No effect
Species conversion	Retaining larger, more fire-resistant species and restocking with lower flammability species following thinning to alter long-term stand fuel hazard.	No effect	No effect	Decrease (long-term)	Increase

Figure 8. Treatment type and its influence on each fuel treatment principle.⁶⁸

⁶⁷ Comox Valley Agricultural Plan – Final Interim Report

⁶⁸ 2024 Fuel Management Practices Guide

The identification of fuel treatment units included the consideration of:

1. Local wildfire threat assessments.
2. Proximity to value being managed for (i.e., within 1 km of community, critical infrastructure, etc.).
3. Identified as a value at risk (e.g., parks with high or moderate natural asset rating).
4. Areas with high public use, history of illegal campfires or other public concerns (e.g., illegal yard waste dumping).
5. Accessibility for first responders and the location water sources.
6. Development plans for the treaty settlement lands.

The CVFSR has identified priority treatment units for the 2025/2026 grant funding application, including potential demonstration forests (>5ha) within each Regional Partner’s jurisdiction. However, priorities are needed for all the treatment units to focus annual activities, including budgeting. BCWS has developed a priority setting worksheet⁶⁹ which considers topography, vehicle access, proximity to values at risk and other treatment area. Given the complexities of the land ownership and diverse range of values at risk in the WUI, a unique scoring system should be used with the following considerations, in no particular order:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Land Ownership – Crown / Treaty Settlement Lands, Regional District, Municipal. 2. Suppression Considerations – Response time, water supply, access (including evacuation routes). 3. Values at Risk – Within or near the unit, consideration of the management objectives. 4. Public Use – Recreational use, illegal campfires, motorized vehicles, yard waste dumping etc.. 5. Local Wildfire Threat Assessment – refer to the Treatment Unit List. | <ol style="list-style-type: none"> 6. Stand Uniformity – uniform or fragmented stand ages and composition. 7. Other Vegetation – includes understory shrub types and invasive plants (especially broom). 8. Natural Asset Rating – if available (e.g., some CVRD parks) 9. Topography – Slope, aspect, and slope position (if slope > 20%). 10. Funding Availability – WRR, UBCM-CRI or other. |
|---|---|

The priority list should also include comments regarding the appropriate wildlife risk reduction activities. The list should also include the consideration of a demonstration forests and any other action items required (i.e., treatment decision survey⁷⁰). Demonstration forests help build public

⁶⁹ 2020 Wildfire Threat Assessment Guide

⁷⁰ Fuel Management Survey Data Collection Standard May, 2023

support by providing a real-world example of how fuel reduction treatments improve wildfire resilience while maintaining healthy ecosystems on the coast.

Treatment units are listed in Appendix D: Fuel Treatment Units, with the locations mapped in Appendix I: Treatment Unit Maps.

Recommendations

Review and prioritize identified treatment units using a multidisciplinary approach (Action items 46-47).

- Given the diverse range of values at risk and overlapping resource management objectives, the identified treatment units should be further assessed, preferably in the field, using a multidisciplinary approach with input from the following representatives:
 - Regional Partner’s Parks or Archaeological Departments
 - Regional Partner’s Planning and / or Environmental Departments
 - Registered Forest Professional (required)
 - Fire Department
 - Land Manager (as applicable)
 - MoF or BCWS Representative (if available)
 - Other Professionals, such as Biologists, as required.

The team should be assembled and the treatment unit areas visited in a short time frame.

- For each treatment unit, the team should complete a distinct priority checklist, determine suitable wildfire risk reduction activities, and assess its potential as a demonstration forest. The final prioritized list will be used to inform the 5-year plan.

Create a 5-yr plan to implement the wildfire risk reduction activities (Action Item 48).

- Fuel treatments identified in this CWRP are expected to take more than 5 years to complete. The priority list and wildfire risk reduction activities for the treatment units can serve as the basis for developing a detailed five-year implementation plan. Sites selected to be demonstration forests should be prioritized. Wildfire risk reduction activities, not including fuel treatments or natural asset assessments, should be completed within the 5 years. Any removal of invasive plants or actions to reducing anthropogenic risks should be prioritized. The plan should include budgets and potential funding sources to support applications.

For activities on Crown land, the Ministry of Forests Wildfire Risk Reduction Coordinators should be included and for activities in on treaty settlement lands the First Nations’ Emergency Services Society should be included (refer to action item 26).

Develop prescriptions treatment units and complete other wildfire risk reduction activities (Action Items 49-50).

- Fuel treatments identified in this CWRP are expected to take more than 5 years to complete. However, the prescriptions can be developed based on their assigned priority (highest priority first) ratings to support implementations and budget planning. An additional field visit will be required to create a treatment prescription.

Note: The South Island Natural Resource District generally conducts four activities related to fuel treatments. They remove hazardous trees for safety, brush dying conifers (excluding cedar) that contribute to ember lofting, prune lower branches above three meters to prevent fire spread to the crown, and buck and spread downed debris for faster decomposition. A non-pruned edge is left at the forest edge to reduce wind impact, with the first 200 meters treated for improved sprinkler access and water distribution. Canopy thinning is limited to 30% to maintain forest integrity.

- Where other wildfire risk reduction activities have been identified (e.g., signage, removal of invasive species), these should also be completed.

Implement fuel reduction treatments and develop a monitoring plan (Action Items 51-52)

- Fuel treatment units enhance community and ecosystem resilience to fire. When properly maintained, they provide long-term effectiveness in reducing wildfire risk. Following the prescription, complete the fuel management treatments.
- Fuel treatments must be monitored to ensure they effectively reduce wildfire risk, support ecosystem health, and allow for necessary adjustments over time. For each treatment that is completed, ensure that there is a maintenance plan developed that includes periodic assessments.

6. Action Plan

Action plans have been developed using the **SMART Criteria** to set clear, achievable, and measurable goals. It ensures that objectives are well-defined and actionable. SMART stands for:

- **S – Specific** - The goal should be clear and specific, answering the "what," "why," and "how."
- **M – Measurable** - The goal should have measurable criteria to track progress and success.
- **A – Achievable** - The goal should be realistic, considering available resources and constraints.
- **R – Relevant** - The goal should align with broader objectives or priorities.
- **T – Time-Bound** - The goal should have a clear deadline or timeframe.

The CWRP Action Plan includes 52 action items to be completed in the next 5 years. Refer to Table 1 in the Executive Summary for the table of action items.

Routine tracking of the action items should be completed to ensure accountability, progress monitoring, and effective implementation. A comprehensive review of the CWRP should be completed to determine if there have been any significant changes to the plan that require consideration or revision. The plan should be revised in 5 years.

Note: FCFS (UBCM-CRI) funding is not available for all the action items. The Regional Partners should continue to advocate for increased, consistent funding and a streamlined application process to reduce administrative burdens. As well as to improve alignment between FireSmart funding and EDMA-related funding to support comprehensive risk reduction across all phases of emergency management.

7. Appendices

Appendix A: Regional Partner Summaries

K'ómoks First Nation

Key Points

- 6.5% of the WUI is IR and treaty settlement lands.
- Water supply from the provincially designated community watershed (Puntledge Community Watershed), with majority of land owned by PMFLs. The Comox Lake Watershed Protection Plan specifies a 71-90% probability of wildfire occurrence in the watershed in the next 10 years.
- BCWS has identified the slash management practices in woodlots as being a concern which has been identified as an area of improvement for woodlots north of the AO by the Forest Practices Board in 2023/2024 (the Royston Forest was not audited).
- Fuel treatment occurring on Hornby Island on Crown land parcel directly adjacent to the treaty settlement parcel.

Key Action Items

1. Enhance public awareness and understanding of FireSmart initiatives through aligned messaging on the website.
2. Distribute any provided regular or annual updates that highlight the Fire Smart program successes to all departments.
3. Offer knowledge regarding the alignment or fire service by-laws on burning restrictions and permits and align messaging across websites and social media, in collaboration with BCWS, to communicate local regulations and lifting of bans.
4. Facilitate CVEM information sessions, with distribution of FireSmart materials, to educate staff in relevant departments on integrating FireSmart principles into planning.
5. Wildfire development requirements should be established prior to the development of K'ómoks treaty settlement lands. Ensure land development plans effectively mitigate wildland interface fire hazards and incorporate FireSmart terminology, including FireSmart landscaping and invasive species management with regionally aligned lists.
6. Provide continued support for maintaining the regional CVFSR committee.
7. Continue to support the CVEM and CVFSR to foster collaboration, information sharing and response planning with other agencies and Landowners with the First Nations Emergency Society of BC (FNESS).

8. Continue supporting cross training opportunities to Regional Partner Staff and emergency responders.
9. When a clear definition of critical infrastructure is provided in EDMA regulations, continue to support CVEM to create one aligned list of critical infrastructure for all the Regional Partners.
10. Increase the number of HIZ assessments, conduct and implement mitigation actions from FireSmart Critical Infrastructure Hazard Assessment, prioritizing key community buildings.
11. Develop a list of cultural sites for assessment, complete evaluations, and create a plan for activities and ongoing maintenance.
12. Support and participate in a multidisciplinary team to review treatment objectives, prioritize units, and identify wildfire risk reduction activities and priorities for the identified treatment units.
13. Implement the fuel management treatments (with MoF and FNESS), additional risk reduction measures, and a maintenance strategy for long-term effectiveness.

Local Wildfire Threat Ratings

Table 16: Wildfire threat ratings for K’ómoks treaty settlement lands.

Treaty Settlement Area Name / Wildfire Threat Rating			
High			
DL50*	Royston Forest*	Wildwood Forest Tribal Park*	WL1677*
Wood Mountain West			
Moderate			
Browns River	DL28/31/32*	DL7*	Hornby Island
Intersection Lands	Lot 2	Lot 3*	Northeast Woods*
Piercy Road	Railway Corridor	Royston Forest*	Sage Hills
Scout Camp	Waveland Beacon	Wildwood Forest Tribal Park*	Williams Beach*
WL0026*	WL0085	WL1677*	Wood Mountain
Low			
Goose Spit	Kus-kus-sum	Pentledge 2	WL1677*
Federal Parcel 1*			

*Local wildfire threat assessment field plot completed. Note that some areas have a mix of high and moderate ratings, as identified in both sections.

Identified Treatment Units

Treatment units identified to be further assessed using a multidisciplinary approach to determine preferred wildfire reduction activities include:

1. Williams Beach
2. Wildwood Forest Tribal Park – Priority for 2025/2026 CRI Funding. Potential demonstration forest.
3. Federal Parcel 1 (Waveland Beacon)
4. Northeast Woods – Priority for 2025/2026 CRI Funding. Potential demonstration forest.
5. District Lot 7 – Priority for 2025/2026 CRI Funding. Potential demonstration forest.
6. District Lot 50
7. Hornby Island
8. Woodlot #0085 (Southlands, Musgrave Rd) – Priority for 2025/2026 CRI Funding.

Comox Valley Regional District

Key Points

- There are areas in the AOI that have been identified as having logistical constraints related to evacuation, which include, but are not limited to: Mt. Washington Alpine Resort, Forbidden Plateau Neighbourhood, Denman and Hornby Islands.
- Majority of the water supply is from the provincially designated community watershed (Puntledge Community Watershed), with majority of land owned by PMFLs. The Comox Lake Watershed Protection Plan specifies a 71-90% probability of wildfire occurrence in the watershed in the next 10 years. Other smaller drinking watersheds are sediment rich and would be more susceptible to turbidity impacts from wildfire.
- Majority of wildfires from 2018 were human caused (68%).
- In all months, extreme wind comes from the SE where sustained speeds can exceed 80 km/hr and is a concern for the BCWS with regards to wildfire spread, specifically in the Royston and Union Bay areas.
- There were several field observations and discussions around the increased prevalence of tree mortality related to cedar dieback, particularly on Denman and Hornby Island. It was identified that on Hornby and Denman Islands, deploying hose lays in steep forested areas can be challenging unless the fire is near the shoreline.
- Several parks have already been assigned a natural asset rating.
- Fuel treatment occurring on Hornby Island on a Crown land parcel with community infrastructure.

Key Action Items

1. Enhance public awareness and understanding of FireSmart initiatives through aligned messaging on regional district and Fire Department websites.
2. Distribute any provided regular or annual updates that highlight the FireSmart program successes to all relevant departments.
3. Align fire service by-laws on burning restrictions and permits with all Regional Partners and standardize messaging across websites and social media, in collaboration with BCWS, to communicate local regulations and lifting of bans.
4. Revise existing fire service by-laws to incorporate wildfire resiliency actions, Cumberland can be used an example.
5. Consider reviewing all relevant plans and by-laws, including tree removal, to ensure they effectively mitigate wildland interface fire hazards and incorporate FireSmart terminology, including FireSmart landscaping and invasive species management with regionally standardized lists.

6. Create standardized Terms of Reference for required wildfire risk assessment reports in rural electoral areas.
7. Aligned Development Permit Areas should be established by all the Regional Partners, including areas covered by the Rural Comox Valley Official Community Plan for wildfire hazard protection areas to reduce ambiguity in the current by-law. FireSmart requirements should be included.
8. Provide continued support for maintaining the regional CVFSR committee.
9. Establish a monitoring program for the implementation of the action items in this CWRP.
10. Collaborate with MoFs WRR Coordinators and BCWS to explore joint wildfire risk reduction projects, funding opportunities, and proactive planning, including information sharing and joint training exercises. Additionally, work with CFB Comox, BC Parks, Telus, BC Hydro, and PMFLs to conduct emergency response simulations, advocate for fuel reduction funding, and request information for local wildfire threat assessments and WRR reports.
11. Advocate for FCFS-CRI to provide sustainable core funding for multi-year staffing plans.
12. Continue providing cross training opportunities to Regional Partner Staff and emergency responders, including providing LFR training to increase capacity for HIZ and critical infrastructure assessments.
13. When a clear definition of critical infrastructure is provided in EDMA regulations, create one aligned list of critical infrastructure for all the Regional Partners and make data available in a spatial format.
14. Increase the number of HIZ assessments, conduct and implement mitigation actions from FireSmart Critical Infrastructure Hazard Assessment, prioritize municipal and Fire Department buildings, and continue the chipping program.
15. Develop a list of green spaces for assessment, complete evaluations, and create a plan for activities and ongoing maintenance.
16. Coordinate a multidisciplinary team to review treatment objectives, prioritize units, and identify wildfire risk reduction activities. Develop a five-year plan with timelines, budgets, and prescriptions for treatment areas. Implement fuel management treatments, additional risk reduction measures, and a maintenance strategy for long-term effectiveness.

Local Wildfire Threat Ratings

Table 17: Wildfire threat ratings for CVRD parks.

Park Name / Wildfire Threat Rating			
Moderate			
Baynes Park	Bear Creek Nature Park*	Beulah Creek Nature Park	Bill Mee Park
Bracken Park	Croteau Beach Greenway	Daye Park	Dove Park
Driftwood Marine Park*	Glover Community Nature Park*	Headquarters Townsite Park	Hidden Beach Park
High Salal Park	Jack Shark Park*	Joe Walker Park*	Keith Ware Park
Little River Nature Park*	Masters Greenway*	Morning Beach Park	Mount Geoffrey Bench Park
Mount Geoffrey Nature Park*	Mount Spirit Nature Park*	Nymph Falls Nature Park*	Pinecrest Bike Skills Park
Sandpines Park	Sandpiper Beach Park	Saratoga Park	Sea Terrace Park
Seal Bay Nature Park*	Ship Peninsula Park*	Ships Point Park	South Maccaulay Heights Park
Stanhill Park	Tralee Park	Trent River Greenway*	Tsolum River Commons
Union Bay Nature Park*	Wells Park	Wildwood Interpretative Forest*	Wildfred Road Conservation Area
Low			
Arthurs Park	Avonlee Greenway	Barbara Road Greenway	Clam Shell Park
Denman Cross Island Trail	Dyke Road Greenway	Dyke Road Park	Eagles Park Drive
Eagles Greenway	Emerton Park	Fanny Bay Community Park	Foden Park
Goose Spit Park	Gull Road Greenway	Hawkins Greenway	Hillview Greenway
Hornby Roadside Trail	Huband Park	Hyland Road Greenway	King Coho Greenway
Lazo Wildlife Park	Loxley Park	Maccaulay Heights Park	Mallard Creek Nature Park
Maris Nature Park	Montrose Park	Nob Hill Greenway	One Spot Trail
One Spot Trail – Maccaulay Road	Pearl of the Oyster Park	Periwinkle Park	Piercy Bridge Greenway
Piercy Park	Railway Grade Connector Trail	Ravine Nature Park	Roy Creek Park
Royston Seaside Trail	Royston to Cumberland Railway Trail*	Sarah and Brian McLoughlin Park	Saratoga Beach Access
Schulz Greenway	Seacliffe Park	Shingle Spit Boat Launch	Spike Road Park

Park Name / Wildfire Threat Rating			
St. John's Point Park	Summer Greenway	Trillium Park and Greenways	Union Bay Connector Trail
Union Bay Greenway	Wildwood Marsh	Bear Creek Nature Park*	Union Bay Nature Park*

*Local wildfire threat assessment field plot completed. Note that some areas have a mix of low and moderate ratings, as identified in both sections.

Identified Treatment Units

Treatment units identified to be further assessed using a multidisciplinary approach to determine preferred wildfire reduction activities include:

1. Seal Bay Nature and Forest Park - Priority for 2025/2026 CRI Funding
2. Mt Geoffery Nature Park - Priority for 2025/2026 CRI Funding
3. Ships Peninsula Park
4. Sandpines Park - Priority for 2025/2026 CRI Funding
5. Nymph Falls Nature Park

City of Courtenay

Key Points

- Have the highest number of registered historic sites (a total of 23) in the AOI.
- Municipality has key Fortis and BC Hydro infrastructure.
- Majority of the water supply is from the provincially designated community watershed (Puntledge Community Watershed), with majority of land owned by PMFLs. The Comox Lake Watershed Protection Plan specifies a 71-90% probability of wildfire occurrence in the watershed in the next 10 years.
- Increased response calls to significant grass / brush fires and unattended fires in local parks is a concern.

Key Action Items

1. Enhance public awareness and understanding of FireSmart initiatives through aligned messaging on municipal and Fire Department websites.
2. Distribute any provided regular or annual updates that highlight the Fire Smart program successes to all municipal, or other relevant, departments.
3. Align fire service by-laws on burning restrictions and permits with all Regional Partners and standardize messaging across websites and social media, in collaboration with BCWS, to communicate local regulations and lifting of bans.
4. Facilitate CVEM information sessions, with distribution of FireSmart materials, to educate staff in relevant departments on integrating FireSmart principles into planning.
5. Revise existing fire service by-laws to incorporate wildfire resiliency actions, Cumberland can be used an example.
6. Consider reviewing all relevant plans and by-laws, including tree removal, to ensure they effectively mitigate wildland interface fire hazards and incorporate FireSmart terminology, including FireSmart landscaping and invasive species management with regionally standardized lists.
7. Development Permit Areas should be established in the jurisdiction boundaries of Courtenay for wildfire hazard protection upon review of wildfire risk to Courtenay. Where possible, development permit areas and requirements should be aligned across regional partners.
8. Provide continued support for maintaining the regional CVFSR committee.
9. Continue to foster collaboration, information sharing and response planning with other agencies and Landowners.

10. Continue supporting cross training opportunities to Regional Partner Staff and emergency responders, including providing LFR training to increase capacity for HIZ and critical infrastructure assessments.
11. When a clear definition of critical infrastructure is provided in EDMA regulations, continue to support CVEM to create one aligned list of critical infrastructure for all the Regional Partners.
12. Increase the number of HIZ assessments, conduct and implement mitigation actions from FireSmart Critical Infrastructure Hazard Assessment, prioritize municipal and Fire Department buildings, and continue the chipping program.
13. Develop a list of green spaces for assessment, complete evaluations, and create a plan for activities and ongoing maintenance.
14. Participate in a multidisciplinary team to review treatment objectives, prioritize units, and identify wildfire risk reduction activities and priorities for the identified treatment units.
15. Support the implementation of fuel management treatments, additional risk reduction measures, and a maintenance strategy for long-term effectiveness.

Local Wildfire Threat Ratings

Table 18: Wildfire threat ratings for Courtenay parks.

Park Name / Wildfire Threat Rating			
Moderate			
Bear James Park*	Capes Park	Crown Isle Park*	Dogwood Park
Elderberry Park	Lerwick Nature Park*	Millard Creek Park*	Morrison Creek Park*
Puntledge Park*	Roy Morrison Park	Sandwick Park*	Tarling Park
Vanier Nature Park			
Low			
13 th Street	26 th Buffer Park	Air Park with Rotary Skywalk	Anderton & 1st
Ashwood Park	Bill Moore Park	Blue Jay Park	Cliffe & 5 th
Comox Valley Rhododendron Garden	Condensory Park*	Cooper Park	Costco Frontage Park
Cottonwood Community Garden	Courtenay Marina Park	Courtenay Riverway	Cousins Park
Crown Isle Park*	Crown Isle Park 150 Year Grove	Cumberland & 20 th	First Street Park
Fitzgerald Park	Galloway Park	Harborview Park	Harmston Park
Hawk Glen Park	Hebrides Park	Hobson Park	Idiens Park
Inverclyde Park	Knights of Columbus Park	Krebs/Larsen Park	Lawrence Burns Park
Lewis Park	Malahat Storm Park	Malcolm Morrison Sr. Park	Maple Park

Park Name / Wildfire Threat Rating			
Martin Park	McPhee Meadows	Millard Creek Greenway	Monarch Park
Muir/McLauchlin Park	Pinegrove Park	Rise Park	Riverside Park
Rosewall Buffer Park	Second Street Park	Sheffield Park	Simms Millenium Park
South City Park	Standard Park	Streams Park	Sunrise Park
Sussex Park	The Ridge Park	Trumpeter Glen Park	Valley View Greenway
Walbran Park	Willemar Park	Woodcote Park	Millard Creek Park*

*Local wildfire threat assessment field plot completed. Note that some areas have a mix of low and moderate ratings, as identified in both sections.

Identified Treatment Units

Treatment units identified to be further assessed using a multidisciplinary approach to determine preferred wildfire reduction activities include:

1. Millard Creek Park
2. Morrison Creek Park
3. Condensory Park - Priority for 2025/2026 CRI Funding
4. Hurford Hill Nature Park
5. Dogwood Park
6. Vanier Nature Park

Town of Comox

Key Points

- The Sandpines Neighbourhood was identified as being a higher risk for wildfire with the predominate pine stand type and exposure to the SE winds.
- Municipality has key Fortis infrastructure.
- Majority of the water supply is from the provincially designated community watershed (Puntledge Community Watershed), with majority of land owned by PMFLs. The Comox Lake Watershed Protection Plan specifies a 71-90% probability of wildfire occurrence in the watershed in the next 10 years.
- In all months, extreme wind comes from the SE where sustained speeds can exceed 80 km/hr and is a concern for the BCWS with regards to wildfire spread, specifically in the residential areas surrounding the airport.
- There were several field observations and discussions around the increased prevalence of tree mortality related to, grand fir and pine mortality, particularly on the southern areas of the Town of Comox and the prevalence of root rot throughout the AOI.

Key Action Items

1. Enhance public awareness and understanding of FireSmart initiatives through aligned messaging on municipal and Fire Department websites.
2. Distribute any provided regular or annual updates that highlight the Fire Smart program successes to all municipal, or other relevant, departments.
3. Align fire service by-laws on burning restrictions and permits with all Regional Partners and standardize messaging across websites and social media, in collaboration with BCWS, to communicate local regulations and lifting of bans.
4. Facilitate CVEM information sessions, with distribution of FireSmart materials, to educate staff in relevant departments on integrating FireSmart principles into planning, including FireSmart landscaping and invasive species management with regionally standardized lists.
5. Revise existing fire service by-laws to incorporate wildfire resiliency actions, Cumberland can be used an example.
6. Consider reviewing all relevant plans and by-laws, including tree removal, to ensure they effectively mitigate wildland interface fire hazards and incorporate FireSmart terminology, including FireSmart landscaping and invasive species management with regionally aligned lists.
7. The 2025 Comox Community Plan should consider wildfire resiliency strategies. Development Permit Areas should be established in the jurisdiction boundaries of Comox

for wildfire hazard protection upon review of wildfire risk to Comox. Where possible, development permit areas and requirements should be aligned across regional partners.

8. Provide continued support for maintaining the regional CVFSR committee.
9. Continue to foster collaboration, information sharing and response planning with other agencies and Landowners.
10. Continue supporting cross training opportunities to Regional Partner Staff and emergency responders, including providing LFR training to increase capacity for HIZ and critical infrastructure assessments.
11. When a clear definition of critical infrastructure is provided in EDMA regulations, support CVEM to create one aligned list of critical infrastructure for all the Regional Partners.
12. Increase the number of HIZ assessments, conduct and implement mitigation actions from FireSmart Critical Infrastructure Hazard Assessment, prioritize municipal and Fire Department buildings, and continue the chipping program.
13. Develop a list of green spaces for assessment, complete evaluations, and create a plan for activities and ongoing maintenance.
14. Participate in a multidisciplinary team to review treatment objectives, prioritize units, and identify wildfire risk reduction activities and priorities for the identified treatment units.
15. Support the implementation of fuel management treatments, additional risk reduction measures, and a maintenance strategy for long-term effectiveness.

Local Wildfire Threat Ratings

Table 19: Wildfire threat ratings for Comox parks.

Park Name / Wildfire Threat Rating			
Moderate			
Condor Park*	Foxwood Park	NE Woods*	
Low			
Anderton Park	Comox Valley Lions Club Park	Highwood Park	McDonald Bog
Aspen Park	Cottonwood Greenway	Lancaster Park	McDonald Greenway
Baybrook Nature Park	Elks and Royal Purple Park	Lazo Foreshore Multi-use Path	Port Augusta Park
Brooklyn Creek Greenway	Filberg Lodge Park	MacDonald Wood Park*	Salish Park
Carthew Creek Greenway	Highland Park	Mack Laing Park	Skeena Park
Claddagh Estates	Highmoor Grenway	Marina Park	Village Park-Tot Lot
Comox Community Centre			

*Local wildfire threat assessment field plot completed.

Identified Treatment Units

Treatment units identified to be further assessed using a multidisciplinary approach to determine preferred wildfire reduction activities include:

1. Northeast Woods – Priority for 2025/2026 CRI Funding. Potential demonstration forest.
2. Condor Park
3. Braybrook Creek Green Belt

Village of Cumberland

Key Points

- The majority of the PFML lands in the WUI (17.4%) surrounds the town.
- Unlike the rest of the communities in the AOI that have aging populations, Cumberland has a growing youth population.
- Has the second highest number of registered historic sites (a total of 18) in the AOI.
- Has valuable recreation areas, with a reported 60% increase in trail usage from 2019.
- Unauthorized fires and off-road vehicle use along the shore of Comox Lake (beach fires are common along the shores at Coal's beach, Whyte's Bay, and Comox Lake Bluffs Ecological Park), coupled with restricted access in the summer from limited parking space, is a major concern.
- There were several field observations and discussions around the increased prevalence of root rot throughout the CCFS / Village Forest lands.
- The mine tailings from the old coal mines around Cumberland (i.e. along Lake Trail Road, east end of Comox Lake) should be considered during any wildfire suppression activities as once wildfire gets into the tailing's suppression can be very difficult.
- Comox lake watershed (e.g., Village of Cumberland Forest Lands), has the same topography as Cameron Bluffs, which had a fire that spread to 229ha and isolated communities.
- FireSmart principles and wildfire resiliency actions incorporated well into community planning and development.
- Village forest lands under a covenant that permits works related to wildfire prevention, with the required approvals. Note: Only publicly owned lands are eligible for funding and are included as identified treatment units.

Key Action Items

1. Enhance public awareness and understanding of FireSmart initiatives through aligned messaging on municipal and Fire Department websites.
2. Distribute any provided regular or annual updates that highlight the Fire Smart program successes to all municipal, or other relevant, departments.
3. Align fire service by-laws on burning restrictions and permits with all Regional Partners and standardize messaging across websites and social media, in collaboration with BCWS, to communicate local regulations and lifting of bans.
4. Facilitate CVEM information sessions, with distribution of FireSmart materials, to educate staff in relevant departments on integrating FireSmart principles into planning.

5. Revise existing fire service by-laws to incorporate wildfire resiliency actions, specifically related to undeveloped properties.
6. Consider reviewing all relevant plans and by-laws, including tree removal, to ensure they effectively mitigate wildland interface fire hazards and incorporate FireSmart terminology, including FireSmart landscaping and invasive species management with regionally standardized lists.
7. Review the Community Plan and update to the most current FireSmart principles (e.g., distance of the priority zones). Where possible, development permit areas and requirements should be aligned across regional partners.
8. Develop a GIS spatial inventory of all covenant lands within the Regional District and collaborate with conservancy holders / managers to review conservation land titles for permissible wildfire prevention activities.
9. Provide continued support for maintaining the regional CVFSR committee.
10. Continue to foster collaboration, information sharing and response planning with other agencies and Landowners.
11. Continue supporting cross training opportunities to Regional Partner Staff and emergency responders, including providing LFR training to increase capacity for HIZ and critical infrastructure assessments.
12. When a clear definition of critical infrastructure is provided in EDMA regulations, continue to support CVEM to create one aligned list of critical infrastructure for all the Regional Partners.
13. Increase the number of HIZ assessments, conduct and implement mitigation actions from FireSmart Critical Infrastructure Hazard Assessment, prioritize municipal and Fire Department buildings, and continue the chipping program.
14. Develop a list of green spaces for assessment, complete evaluations, and create a plan for activities and ongoing maintenance.
15. Participate in a multidisciplinary team to review treatment objectives, prioritize units, and identify wildfire risk reduction activities and priorities for the identified treatment units.
16. Support the implementation of fuel management treatments, additional risk reduction measures, and a maintenance strategy for long-term effectiveness.

Local Fire Threat Ratings

Table 20: Wildfire threat ratings for Cumberland parks.

Park Name / Wildfire Threat Rating			
Moderate			
Camp Road Greenway	Coal Creek Historic Park*	Cumberland Community Forest Park*	Cumberland Lake Park*
Egremont Park	Ravenwood Park	Solport Park	South Wellington Colliery Railway
Perseverance Creek*			
Low			
Derwent Park	Hope Park	Nikkei Park	No.6 Mine Heritage Park
Old Orchard Park	Peace Park	Postbox Garden	Ulverston Park
Village Park*	Village Square*		

*Local wildfire threat assessment field plot completed.

Identified Treatment Units

Treatment units identified to be further assessed using a multidisciplinary approach to determine preferred wildfire reduction activities include:

1. Cumberland Community Forest Park Priority for 2025/2026 CRI Funding. Potential demonstration forest.
2. Conservation Lands at Comox Lake

Appendix B: Engagement Summary

Table 21: Engagement summary table.

Name	Format	Description
Presentations		
Project Kick Off Meeting	Virtual/ In-person	General overview meeting to introduce the CWRP project and gather information. All the identified key interest holders were invited, but the timing was at the end of August during summer holiday season, so the attendance was low. A follow up e-mail was sent to those that did not attend or follow up by phone call or e-mail.
Community FireSmart Resilience Committee Meetings	In-person	Attendance at three meetings and presented the ongoing and final results of the CWRP project. Input for the CWRP was provided by representatives of all the Regional Partners.
K'ómoks First Nation	Virtual/ In-person	The results of the field assessments were presented and provided to the Disaster Risk Reduction Coordinator for sharing. An overview presentation of the CWRP, as well as a copy of the report, was presented to the Chief and Council.
Watersheds, Wildfire, and Changing Forest Landscapes Symposium	In-person	Participated and presented at the symposium, hosted by the Cumberland Community Forest Society, in Cumberland. Several Regional Partner representatives and interest holders were in attendance and provided additional input to the plan.
Comox Valley Regional District Board.	In-person	An overview presentation of the CWRP, as well as a copy of the report, was presented to the Board.
Direct Engagement		
K'ómoks First Nation	Virtual/ In-person	As a Regional Partner, the Disaster Risk Reduction Coordinator was engaged and updated throughout the project. The Natural Resources and Archaeology & Referrals departments also provided support and input.
Comox Valley Regional District & Emergency Services	Virtual/ In-person	As a Regional Partner, and as the project administrator, the Emergency Services Department, including the Regional Fire Chief, was heavily engaged and provided support to this project as well as being key contributors to the plan. The GIS staff, and staff from the engineering services and planning and development services also provided support and input for the plan, particularly with identifying values at risk and natural asset ratings.
City of Courtenay	Virtual	Met with the Development Services (planning) and the Recreation and Cultural Services (parks and rec) staff to review the results of the field assessments and any public concerns

Name	Format	Description
		regarding fuel management in the municipal parks and other development planning considerations regarding FireSmart and wildfire resiliency.
Courtenay Fire Department	Virtual/ In-person	The Fire Chief and Operations Assistant (Chair of the CVFSR) provided key input for many aspects of the plan.
Town of Comox	In-person	Met with the Development Services (planning) and the Operational Services (parks and rec) staff to review the results of the field assessments and any public concerns regarding fuel management in the municipal parks and other development planning considerations regarding FireSmart and wildfire resiliency.
Comox Fire Department	In-person	The Fire Chief and Lieutenant provided key input for many aspects of the plan.
Village of Cumberland	In-person	Met with the CAO, Building and Development Department (planning, community Services and public works) and the Parks and Recreation Department (parks and rec) staff to review the results of the field assessments and any public concerns regarding fuel management in the forested village lands and other development planning considerations regarding FireSmart and wildfire resiliency.
Cumberland Fire Department	In-person	The Deputy Fire Chief and Lieutenant provided key input for many aspects of the plan and provided a tour of the Fire Department's areas of concern in the community.
Denman Fire Department	Virtual	The Fire Chief provided key input for many aspects of the plan.
Hornby Island Department	Virtual	The Fire Chief provided key input for many aspects of the plan.
CFB Comox Fire Service	In-person	The Deputy Fire Chief provided key input for many aspects of the plan and provided a tour of the Fire Department on base and areas of concern on federal land adjacent to in the living quarters (barracks). Access was also granted to assess the Seal Bay training grounds.
BC Wildfire Service	Virtual	Wildfire Officers from the Mid Island Zone and Coastal Fire Centers provided key input for many aspects of the plan.
Ministry of Forests	Virtual	The Land and Resource Coordinators – Wildfire Risk Reduction for the South Island and Campbell River Natural Resource Districts provided key input for many aspects of the plan. Both were also available to support and respond to information requests promptly.
BC Parks	Phone/ Virtual	The Miracle Beach and Von Donop Area Supervisors provided key input for many aspects of the plan.

Name	Format	Description
Island Health and Health Emergency Management B.C.	Virtual	A range of representatives provided key input for the human health section of the plan.
First Nations' Emergency Services Society	Virtual/ In-person	The Mitigation Liaison provided key input for many aspects of the plan and was available to support and respond to information requests promptly.
Cumberland Community Forest Society	Virtual/ In-person	The Executive Director provided key input for many aspects of the plan.
Comox Valley Land Trust	Virtual	The Executive Director provided key input for many aspects of the plan.
BC Hydro	Virtual	Representatives from the Communications and Field Operations (distribution and substation) departments provided key input for the electrical power and interagency cooperation sections of the plan.
Fortis BC	Virtual	Representatives from the Operations and Planning departments provided key input for the natural gas and interagency cooperation sections of the plan.
Woodlot Licensees	E-mail	Notifications and requests for input were sent to all the Schedule A and B woodlot tenure holders, with varying levels of response.
PMFL Management	E-mail/ Virtual	Both Mosaic Forest Management and Manulife Investments provided information regarding meeting regulatory requirements but were unable to provide any data or information to support the wildlife risk or fuel threat assessments.
Islands Trust	E-mail	Engagement was limited to emails, with meeting requests unfulfilled.
Mt. Washington	E-mail	Engagement was limited to emails, with meeting requests unfulfilled.

Appendix C: Other Plans

Table 22: Table of other plans reviewed in this CWRP.

Jurisdiction	Plan Name	Description and Additional Information	Relationship to CWRP
K'ómoks First Nation	K'ómoks First Nation Comprehensive Community Plan Version 1.0 (2014-2024)	Comprehensive Community Planning is a community-led approach to planning, where the process is driven and owned by all community members rather than by a small group or committee. Describes the history of the K'ómoks First Nation, values important to the community, and sets out a vision or future target for each of these elements. Highlights need for environmental protection as “[the] K'ómoks First Nation relies on the natural environment for food, social, and ceremonial purposes”. Values important to the K'ómoks First Nation include lands, governance, education, health, safety, environmental protection, cultural values and sustainability.	Defines ‘sustainability’ as planning for climate change and being ready for emergency events, which would include wildfires. Provides community demographic data and growth trends.
CVRD	Rural Comox Valley Official Community Plan, Bylaw No. 337 (2014)	Key tool for guiding future growth and change in the three electoral areas of the Regional Partners (Area A, B and C). Outlines the objectives regarding the protection of the natural environment (i.e., sensitive ecosystems, watersheds and water sources, parks and greenways, erosion, and other natural hazards) and cultural heritage resources.	Defines interface fire hazard areas and sets the requirement for development in rural settlement areas to include a report on addressing and mitigating wildfire risks.
	Comox Valley Regional Emergency Program Public Plan	Outlines the structure and organization required to effectively coordinate response and recovery to disasters and emergencies within the Comox Valley, and summarizes the potential hazards and risks present within the local authority jurisdiction	Provides a wildfire risk score in Zone 1 (Cumberland), Zone 7 (CVRD North), Zone 8 (CVRD South), and Zone 9 (K'ómoks First Nation) through a HRVA matrix. Identifies the Fire – Wildland/Interface Contingency Checklist. Ranks wildfires fourth in the high value resources or assets after earthquakes, floods, and power outages.
	Comox Valley Regional District Regional Growth Strategy, Bylaw No. 120, 2010, Amendment No. 1 (2018)	Describes impacts of population growth in the Regional Partners and sets out goals and strategies for addressing these issues. The RGS informs the provincial government of local priorities and objectives and helps to guide local growth. Outlines goals and sets policy for environmental protection, including exploring opportunities for restoration and conservation on forestry lands, and identifying and mapping areas for conservation. Describes objectives for ecosystems, natural areas, and parks (i.e. estuaries, riparian areas, sensitive ecosystems, critical watersheds, biodiversity corridors, and existing parks and proposed parks and greenways).	Sets policy which directs new housing away from high-risk natural hazard areas including fire hazard areas. Outlines the objective for improving regional fire safety and supporting policies including completing fire hazard mapping, eliminating fire service gaps in the region and addressing fire protection needs for developments in the interface areas where there is a high risk of forest fires. Describes increasing wildfire risk due to climate change and growth pressure pushing new developments into rural areas bordering on forest lands, and highlights increasing demand for fire services. Recognizes increasing wildfire risk as a public health and safety and implemented Objective 7-C to improve regional fire safety.
	Comox Valley Regional District Rural Areas Community Climate Action Plan (2015)	Serves as the action plan for the targets set out by the Regional Growth Strategy and the Sustainability Strategy and refined in the OCP. The Action Plan is aligned with the CEEI data, with actions in three major categories: transportation, land-use and buildings, and solid waste. Agricultural and forestry related actions and recommendations have also been made. Targets for the year 2030 include 90% of new housing units will be built in core settlement areas.	Identifies developing a Climate Change Resiliency Plan that includes projections on climate change impacts including wildfire as a short-term (0-5 years) goal. Next steps for climate change adaptation include reviewing fire hazard mapping and guidelines and considering land use implications.
	Comox Lake Watershed Protection Plan (2022)	This plan recognizes that high quality drinking water is produced by a healthy ecosystem that functions properly with processes and attributes; specifically, those aquatic and riparian processes that capture, store, and release water while simultaneously moderating or removing suspended sediments, bacteria, viruses, parasites and excess nutrients.	The Comox Lake Watershed falls within the WUI. The Protection Plan specifies wildfire as a very high risk to the watershed, as both fire and suppression techniques within this area could be catastrophic to water quality. Plan includes 11 recommendations applicable to wildfire including implementing an annual fire drill for the

Jurisdiction	Plan Name	Description and Additional Information	Relationship to CWRP
			watershed, installing spill huts on major tributaries, and assessing the need / utility of creating deliberate fire breaks. This plan states that likelihood of wildfire within the watershed increased from 2016, with a 71-90% probability of occurrence in the next 10 years. Five recorded fires in or near Comox Lake watershed from April to Aug 2021, 3 unknown causes and 2 person caused.
	Denman Island Official Community Plan, Bylaw No. 185 (2008)	Outlines the planning goals of Denman Island, and the policies to help the community reach them. Provides a framework to guide elected officials and community members in future development and conservation initiatives. Restricts the Denman Island Local Trust Committee to only enact those bylaws and undertake work which is consistent with the Official Community Plan.	Outlines water management objectives including Objective 3: “ensure water is available for fire-fighting and agricultural purposes”; Identifies fire as a natural disturbance under Ecological Principle 6.
	Hornby Island Official Community Plan, Bylaw No. 149 (2014)	Provides a statement of local government goals, objectives and policies. It is intended to provide policy guidance for the Hornby Island Local Trust Committee and the public regarding the existing and proposed land use and development in the Local Trust Area.	Identifies significant fire risk in the Mount Geoffrey area, and the threat this could cause to groundwater resources. Consequently, sets Objective 3: “protect the forest from major disturbance by fire”. Sets policies 4.5.8: “Enclosed cisterns and ponds for storage of rainwater to supplement water supply for individual or group household use and fire protection and irrigation are encouraged”; 6.1.15: “The protection of the Island from fire hazard should be considered when developing land use regulations”; and 6.8.3: “strongly encourage the retention of forest cover except for the clearing of land for farming in the Agricultural Land Reserve. Trees on private property should be maintained where possible to sequester carbon and provide habitat, although it is understood that some clearing is necessary for growing food, to guard against forest fires and to create protected house sites”.
	Mt. Washington Integrated Resort Community Plan (2013)	Provides the policies and guidelines for growth, development, and environmental protection within the Mt. Washington IRCP area (Electoral Area ‘C’). Identifies protected areas and important wildlife habitat (i.e., sensitive alpine ecosystems, Strathcona Provincial Park boundary, critical Vancouver Island marmot habitat) surrounding Mt. Washington.	Requires that Mt. Washington Master Plan addresses wildfire suppression. Includes the development of a Community Wildfire Protection Plan (CWPP) through collaboration with the CVRD as an advocacy policy with official “FireSmart” recognition a goal for the community. Encourages the Mt. Washington ownership group to continue collaboration with agencies responsible for the management of Strathcona Provincial Park and landowners of adjacent private forest lands in emergency preparation relative to wildfires. Sets the requirement for landscaping plans to reduce the risk of wildfire. <i>CWPP was to be adopted within five years of the adoption of the IRCP (i.e. 2018).</i>
	Mount Geoffrey Nature Park and Crown Land Trails Management Plan (2017)	This plan sets the vision and goals for the park and Crown land trails, identifies the natural features of the lands, and outlines an implementation strategy to manage the natural environment and trail network for public enjoyment, recreation and conservation into the future (2017 to 2030).	Identifies wildfire risk management as an important goal for the park and Crown lands. Specifically, establishes Goal 10: “Work with fire services to reduce the risk of wildfires on Mt. Geoffrey”. This goal is supported by 6 action items which include themes of emergency planning (10.1, 10.2: maintain helicopter landing sites, fire ponds, and trails to act as fire breaks), education (10.3,10.4: continue park patrols and establish new signage), interagency cooperation (10.5: encourage collaboration between Hornby Island Fire Dep., Coastal Fire Centre and BC Parks) and vegetation management (10.6: back burns and / or prescribed burning supported when appropriate when suppressing wildfire). Hornby Island CWPP (2006) assessed Mount Geoffrey as high to extreme fire risk. Recent (2017) review of fire risk by BC Wildfire Service suggests that current threat is lower than previously assessed (moderate), and fire risk is variable with usage and climate change.

Jurisdiction	Plan Name	Description and Additional Information	Relationship to CWRP
	Regional Parks & Trails Strategic Plan (2024)	Provides overall direction and guidance for planning and managing the CVRD's new Regional Parks and Trails service over the next 20 years.	Describes the Regional Parks and Trail's potential to support regional resilience to climate change impacts such as wildfire risk. Sets action items 5.1 and 5.2 which requires Regional Park / Trail Management Plans to align with region-wide planning directions on topics including wildfire risk / resiliency and requires that Regional Parks and Trails be included in region-wide planning including Wildfire Management.
	Seal Bay Nature Park and Forest Management Plan (2019)	Describes the park's natural environment, cultural and social history, and recreational, cultural, and social uses. It aims to guide the long-term management of Seal Bay Nature Park through a set of management themes, goals and actions developed to achieve the park vision. Management themes include environmental stewardship (i.e. protecting the park's rare and sensitive ecological communities, and preserving natural ecosystems), visitor experience, sustainable trail network, partnerships and collaboration, and public safety. Outlines the park values which include natural values, economic values, recreational values, cultural values, social values, and climate change	Describes the role this Community Wildfire Protection Plan will play in achieving goals relating to public safety and aim to implement the wildfire risk recommendations developed through this CWRP. Indicates that the CWRP, once released, will "provide a high-level assessment of the wildfire risk in Seal Bay Park." Describes actions required to coordinate emergency response planning (i.e. develop emergency response guidelines and emergency wayfinding signage for the park, identify specific areas of wildfire risk vulnerabilities in the park, and ensure adequate access to the park is maintained to meet emergency response needs). Identifies that BC Wildfire Service would respond to a wildfire in Seal Bay Park.
	Strathcona Park Master Plan (2001)	Sets Strathcona Park's role as a large wilderness area and its significant contribution to the representation of natural ecosystems and the protection of special features and recreation opportunities; gives direction on park additions; management of vegetation, fish, wildlife and cultural values, recreation, access, and First Nations. The plan establishes a public advisory committee to provide advice on the implementation of the plan.	No mention of wildfire management. Bans open fires from the park except in areas where facilities are provided for campfires.
City of Courtenay	City of Courtenay Official Community Plan, Bylaw No. 3070 (2022)	The OCP is a bylaw, prepared and adopted by the City of Courtenay in compliance with the Provincial Local Government Act, which provides long-term strategic direction for City Council and staff until 2031. Outlines objectives for the natural environment (ex. urban forest canopy cover, protection of sensitive ecosystems, clean soil, air, and water) and parks and recreation (ex. connected and integrated parks and natural areas), and sets policies for each objective.	Sets the requirement for a Wildfire Hazard Risk development application to be submitted when proposed development is adjacent to significant forested areas. Identifies exploring the establishment of Development Permit Areas for wildfire hazard protection as an implementation action that the city will have to undertake to achieve OCP Policy Part C – BL 9.
	City of Courtenay Strategic Priorities (2023-2026)	Identifies priorities aligned with the City of Courtenay Official Community Plan to be achieved by the Courtenay City Council over a four-year period.	Describes public safety as a priority, wherein the City aims to build capacity for emergency planning and local response. Supports resource allocation for CWRP implementation.
Town of Comox	Town of Comox Strategic Plan (2022-2026)	Strategic plans help prioritize a community's annual goals and activities for goal setting, implementation, and budgeting purposes. Identifies priorities to be achieved by the Comox Council over a five-year period.	Specifies FireSmart support and wildfire mitigation as priorities within the 'Public Safety' Area of Focus. Supports resource allocation for CWRP implementation.
	Town of Comox Urban Forest Management Plan (2012)	Details recommendations and a management strategy to help the Town of Comox achieve a sustainable urban forest. Provides the Town of Comox with information on its' streets and parks. Note: At the time of this CWRP, public engagement was ongoing for the development of an updated plan.	Identifies 'Fire and the Urban-Rural Interface' as a key element for Best Management Practices for Urban Forestry. Recommends writing a natural area management plan for the Town of Comox that addresses 'Preservation and Protection, 'Health, Safety and Liability' and 'Biodiversity Conservation' as management topics with 'Fire Management' as a management specific.
Village of Cumberland	Cumberland Community Forest Society 2023-2028 Strategic Plan	Identifies broad goals and priorities of the Cumberland Community Forest Society. Society seeks to expand conservation of mature second-growth forest in the Regional Partnership.	Describes aim to increase collaborative stewardship and management planning, and to strengthen relationships with local, regional, Indigenous, and provincial levels of government.

Jurisdiction	Plan Name	Description and Additional Information	Relationship to CWRP
	Cumberland Forest Covenant	The voluntary, legal agreement between the Village of Cumberland, the Comox Valley Land Trust, and The Land Conservancy of British Columbia for the management of the Cumberland Community Forest Park. This covenant is permanently attached to the title of the property. Permits natural processes to occur (includes windthrow, flooding, channel changes and slope failure, but not wildfire) There is public interest in protection (from wildfire), preservation, conservation, maintenance, enhancement, and restoration of natural state	Sets several provisions for the Forest, some of which have implications to fire hazard mitigation. i.e.: <ul style="list-style-type: none"> • Human intervention in forest succession processes is not permitted. <ul style="list-style-type: none"> – Native vegetation cannot be cut down, removed or defoliated in any way or tampered with – Standing or downed dead trees or fallen branches cannot be removed. • The Village of Cumberland must not allow or cause fires on the land. • Heavy equipment must not be used on the land.
	Village of Cumberland Official Community Plan, Bylaw No. 990, 2014	Provides a broad framework of goals, objectives, and policies to guide decisions on future planning and land management within Cumberland. Outlines objectives and sets policy related to environmental preservation, views and landscape character, climate change and adaptability, and First Nations. The new OCP is currently in Phase 3 of community engagement, and the formal bylaw review process is expected to commence in winter 2025.	Identifies the Village's goal to reduce risks to life and property in wildfire interface areas and objective to promote activities to reduce wildfire. Defines Development Permit Area 4 – Wildfire Urban Interface. Sets policy and guidelines for development within the Wildfire Urban Interface and Natural Hazardous Areas (ex. Access requirements for evacuation and fire control in subdivisions, setbacks between new buildings and forested areas). Sets policy that the guidelines of the Homeowners FireSmart Manual, BC Edition, 2004 be applied to Wildfire Urban Interface Areas.
	Village of Cumberland Forest Lands Management Direction Statement (2021)	Provides strategic direction for the management of the Village of Cumberland Forest Lands until a comprehensive management plan can be prepared. The Village Forest Lands comprise seven private properties owned by the Village of Cumberland totalling 229.5 hectares in the Perseverance Creek Watershed. <ul style="list-style-type: none"> • Most stands within the forest are mature second growth approaching 100 years in age. • Thinning treatments applied to most regenerating stands to reduce stem densities in the 1960's, 70's and 80's. • Eleven species at risk have been found in the Lands (ex. Common Nighthawk, Northern Red-legged Frog, Little Brown Bat). Access to the Lands almost exclusively requires crossing private forest managed lands on private, gated roads (closed to public vehicles)	Identifies forest and vegetation management and wildfire as priority management issues. To address these issues, the following action items are in place: Action #7: "Investigate opportunities to design and implement forest fuel management programs (e.g. stand thinning) to reduce risk of landscape-level wildfire, including exploring partnership opportunities with stakeholders in the Perseverance Creek watershed." Action #9: "Continue the current extreme forest fire risk practices of implementing additional patrols by the Village Fire Department and coordinated decision making for public trail access restrictions".
	Village of Cumberland Urban Forest Management Plan (2020-2040).	Describes the status of Cumberland's urban forest and benefits of urban forests in general and locally. Provides management recommendations to preserve and improve the urban forest into the future. Provides an inventory on individual 'urban forest' trees and parks within Cumberland with a variety of statistics. Describes benefits of the urban forest (environmental, economic, and social).	Describes risk of wildfire in the Village of Cumberland. Identifies that there is currently no FireSmart Community Plan in place for Cumberland as a whole. Provides recommendations for wildfire resiliency including encouraging homeowners to read and implement recommendations in the FireSmart Homeowner's Manual and creating and implement a FireSmart Community Plan. Describes how climate change could increase forest fire likelihood.

Appendix D: Fuel Treatment Units

Table 23: Fuel treatment units.

FTU	Name	Owner Type	Total Area (ha)	Treatment Unit Objective	Local Risk Rating	Treatment Rationale/ Constraints/ Comments
K'ómoks First Nation						
1	Williams Beach	Crown (Treaty)	548.4	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk)	High (moderate)	<p>Treatment Unit (TU) 1 is a contiguous mixed conifer stand, lead by pine. It is characteristic of a C-3 stand with a high local fuel threat rating. It is near the ocean and subject to summer SE winds.</p> <p>It was a former intensively managed woodlot licence area with high recreation use by hikers and equestrian riders. There is limited road access. It is surrounded by rural residential and undeveloped properties, with properties located between the unit and the water.</p> <p>Further stratification of treatment units is required. Any stand tending should be targeted to create access and defensible space near residential properties, increase the fuel strata gap and to reduce the anthropogenic risks.</p>
2	Wildwood Forest Tribal Park	Crown (Treaty)	281.2	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk), Demonstration Forest	High (moderate)	<p>TU 2 is a young Douglas-fir dominant stand with very dense (80% crown closure) and low (<4m) crown base height and fuel strata gap.</p> <p>The park is currently maintained by the CVRD, with a high assessed natural asset rating. It is a heavily used recreation area, with an extensive trail network. Located in a rural area surrounded by private, forested properties and woodlot parcels (W0026). Hydro transmission line runs parallel through the park. It is connected to the Wildwood Marsh wetland, which is particularly important to support local wildlife and biodiversity. The area is used for traditional medicines.</p> <p>Further stratification of treatment units is required. Any stand tending should be targeted to create access and defensible space near residential properties, increase the fuel strata gap and to reduce the anthropogenic risks. The area above north of Burns Road is a potential location for a stand tending demonstration forest. Identified as a priority for further assessment and treatment in 2025/2026 CRI Grant.</p>
3	Federal Parcel 1 (Waveland Beacon)	Federal (Treaty)	9.3	Wildfire Risk Reduction Activities (Removal of Invasive Species)	Moderate	<p>TU 3 is a small parcel, with sparse, young Douglas-fir dominating the stand. The presence of tall high scotch broom throughout the unit which increases the threat from low to moderate.</p> <p>The unit is surrounded by rural residential properties. An invasive species management plan should be created and implemented.</p>
4	Northeast Woods	Crown (Treaty)	13.1	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk), Demonstration Forest	Moderate	<p>TU 4 is a younger Douglas-fir dominant stand, with dense crown closure and some ladder fuels.</p> <p>It is managed by the City of Comox and is heavily used by the public for recreation (e.g., dog walking) and e-bike users. It is surrounded by residential areas and is adjacent to Lazo Marsh Wildlife Park.</p> <p>Illegal yard waste dumping along property boundaries is a concern for residents and the Fire Department as access is limited and inhibits suppression activities.</p> <p>Stand tending activities could include creating defensible space along residential properties, increasing the fuel strata gap and providing access for suppression activities. It is a potential location for a stand tending demonstration forest. Identified as a priority for further assessment in and treatment 2025/2026 CRI Grant.</p>

FTU	Name	Owner Type	Total Area (ha)	Treatment Unit Objective	Local Risk Rating	Treatment Rationale/ Constraints/ Comments
5	District Lot 7	Crown (Treaty)	36.8	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk, Natural Asset), Demonstration Forest	Moderate	TU 5 is a maturing Douglas-fir dominant stand, with some ladder fuels. It includes 9.2ha of ecological lands wetland in the western portion with a high environmental value. It is adjacent to the historic community Union Bay and K'ómoks AOP with a heavily used public trail network. Stand tending activities could include creating defensible space along residential properties and increasing the fuel strata gap. It is a potential location for a stand tending demonstration forest. It may also have the potential to enhance the Natural Asset Rating. Identified as a priority for further assessment and treatment in 2025/2026 CRI Grant.
6	District Lot 50	Crown (Treaty)	7.7	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk)	High	TU 6 is a younger Douglas-fir dominant stand with a low fuel strata gap (<4m). It is adjacent to Comox Lake and is connected to the conservation lands at lower perseverance creek corridor (Cumberland Forest Community Society), the conservation lands at Comox Lake (Cumberland) and several cabin properties. The area is heavily used area for recreation and mountain biking. Includes area identified as a sensitive ecosystem. Stand tending activities could include creating defensible space along residential properties and increasing the fuel strata gap. Could also consider installing signage like those in adjacent lower perseverance corridor creek trails.
7	Hornby Island	Crown (Treaty)	13.0	Wildfire Risk Reduction Activities (Stand Tending)	Moderate	TU 7 is a Douglas-fir dominated stand with cedar. A WRR fuel reduction treatment will be completed in 2025 on the adjacent crown land where the community's infrastructure is located (i.e., fire hall, community center, baseball diamond). Stand tending activities could include consideration for extending the treatment area into the parcel to increase the size of the fuel break and defensible space from the community infrastructure.
8	Woodlot #0085 (Southlands, Musgrave Rd)	Crown (Treaty)	9.6	Wildfire Risk Reduction Activities (Stand Tending)	High	TU 8 is a dense Douglas-fir leading forest, representative of a C-3 fuel type, with a fuel strata gap of less than 3m. The woodlot is located immediately south of the current K'ómoks Woodlot #1968 (Royston Forest). A section of high fuel threat forest is located off Musgrave rd. A clearcut does provide a defensible space from residential homes. However, it is directly connected to the Union Bay Nature Park which has a high natural asset value and connects to the Union Bay residential area. There is also concern regarding embers travelling to Deman island in the event of a fire. Stand tending activities should focus on increasing the fuel gap to prevent a crown fire. Identified as a priority for further assessment and treatment in 2025/2026 CRI Grant.
Comox Valley Regional District						
9	Seal Bay Nature and Forest Park	Crown, Local Government (CVRD)	635.2	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk)	Moderate	TU 9 is a Maturing Douglas-fir stand with some ladder fuels. The Nature Park is owned and managed by the CVRD, and the Forest Park is on Crown land and is managed by the CVRD through a lease. The park is surrounded by residential areas. It has a high natural asset rating, with an ecological reserve area defined in the center of the park, outside the boundary, that is Crown. High public use for hiking and equestrian use and is a high value area for the community. Note that the Park Management plan includes creating a succession plan to promote bird habitat.

FTU	Name	Owner Type	Total Area (ha)	Treatment Unit Objective	Local Risk Rating	Treatment Rationale/ Constraints/ Comments
						Further stratification of potential treatment units is required to identify specific areas of wildfire vulnerabilities within the park. Stand tending should include creating defensible spaces along residential property boundaries and increasing access for suppression activities as water resources can limit suppression abilities (i.e., water tanks may be required). Identified as a priority for further assessment and treatment in 2025/2026 CRI Grant.
10	Mt Geoffery Nature Park	Crown, Local Government (CVRD)	333.3	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk)	Moderate	<p>TU 10 is a young single species, Douglas-fir, stand with very dense (80% crown closure). Characteristics of a C-3 type. Adjacent to the Mt, Geoffery Escarpment Park BC Provincial Park.</p> <p>The park has a high natural asset rating and is heavily used by the public for hiking and biking. Steep terrain, and access and water for suppression activities is limited. There is limited evacuation capability for the island in the event of major fire.</p> <p>Further stratification of potential treatment units is required to identify specific areas of wildfire vulnerabilities within the park. Stand training should include increased access for suppression activities, clearing debris from popular trails and other activities such as signage. Identified as a priority for further assessment and treatment in 2025/2026 CRI Grant.</p>
11	Ships Peninsula Park	Local Government (CVRD)	2.1	Green Spaces	Moderate	<p>TU 11 is a Douglas fir leading stand with cedar and grand fir. The understory conifers provide connectivity to the crown. There is high public usage and proximity to homes with only one evacuation road exiting neighbourhood. High winds from the ocean dry out the fine fuels and vegetation. It is close to the Baynes Sound – Fanny Bay Conservation Area with a Moderate natural asset rating.</p> <p>Potential for green spaces funding. Could also consider Ships Point Park and Baynes Park in the same area for green spaces funding.</p>
12	Sandpines Park	Local Government (CVRD)	1.4	Green Spaces or Stand Tending.	Moderate	<p>TU 12 is a maturing Douglas-fir and pine dominant stand.</p> <p>It is surrounded by private residences, which makes it difficult for access for fire department.</p> <p>Potential for green spaces funding or stand tending if more intensive treatments are required to provide access for suppression activities. Identified as a priority for further assessment and treatment in 2025/2026 CRI Grant.</p>
13	Nymph Falls Nature Park	Crown	61.0	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk)	Moderate	<p>TU 13 is a Douglas-fir leading stand. The understory vegetation and low lateral branches increase the chance of a ground fire spreading to the crown.</p> <p>The park as a high natural asset rating and is heavily used by the public with an extensive trail network. It is in the Forbidden plateau neighbourhood, which has a single evacuation route.</p> <p>Further stratification of potential treatment units is required to identify specific areas of wildfire vulnerabilities within the park. Stand tending activities could include creating defensible space along residential properties, increasing the fuel strata gap and providing access for suppression activities. Could also consider installing signage.</p>

FTU	Name	Owner Type	Total Area (ha)	Treatment Unit Objective	Local Risk Rating	Treatment Rationale/ Constraints/ Comments
City of Courtenay						
14	Millard Creek Park	Local Government (Courtenay)	13.7	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk)	Moderate	TU 14 is a Mature Douglas-fir leading stand, with some ladder fuel potential. It is surrounded by residential and commercial areas and is adjacent to Millard Creek Conservation area. There have been several unauthorized campfires in the forest, with multiple Fire Department calls. Further stratification of potential treatment units is required to identify specific areas of wildfire vulnerabilities within the park. Stand tending activities could include increasing the fuel strata gap and to increase visibility into the park.
15	Morrison Creek Park	Local Government (Courtenay)	2.8	Green Spaces	Moderate	TU 15 is a Douglas-fir leading stand with open paths of deciduous trees. There are several unauthorized campfires in the forest, with multiple Fire Department calls. Potential for green spaces funding to increase the fuel strata gap (below 2m), reduce understory fuels and to increase visibility into the park.
16	Condensory Park	Local Government (Courtenay)	5.2	Green Spaces	Low	TU 16 is a deciduous leading stand with a dense deciduous understory. It is along the Puntledge River. There have been several unauthorized campfires in the forest, with frequent Fire Department calls per year. All fires were ground fires. Potential for green spaces (if maintained area less than 3ha) funding to increase the visibility and access into the park. Identified as a priority for further assessment and treatment in 2025/2026 CRI Grant
17	Hurford Hill Nature Park	Local Government (Courtenay)	10.7	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk, Natural Asset Rating)	Low	TU 17 is a mixed stand with Douglas-fir, grand fir and deciduous trees. It is surrounded by urban neighbourhoods along a slope. Several unauthorized campfires in the forest, with multiple Fire Department calls. The park is under a covenant, managed CV Land Trust. Further stratification of potential treatment units is required to identify specific areas of wildfire vulnerabilities within the park. Stand tending activities could include increasing the fuel strata gap and to create access for suppression activities. Could also consider installing signage. It may also have the potential to enhance the Natural Asset Rating.
18	Dogwood Park	Local Government (Courtenay)	2.3	Green Spaces	Low	TU 18 is a mixed stand with conifers and deciduous trees. It is in a residential area, adjacent to public recreation field and other municipal forested land with high public usage. Public has expressed concerns regarding the risk of wildfire. It is also along the rail line. Potential for green spaces funding to increase the fuel strata gap (below 2m), reduce understory fuels and to increase visibility into the park.
19	Vanier Nature Park	Local Government (Courtenay)	5.4	Green Spaces or Wildfire Risk Reduction Activities (Reduce Anthropogenic Risk, Natural Asset Rating)	Low	TU 19 is a mixed stand with conifers and deciduous trees. It is a rare example of a wetland Garry oak ecosystem. The park is under a covenant, managed CV Land Trust. The unit is adjacent to public high school and other municipal forested land with high public usage. Public has expressed concerns regarding the risk of wildfire. Potential for green spaces (if maintained area less than 3ha) funding to reduce the fuel strata gap. Could also consider installing signage. It may also have the potential to enhance the Natural Asset Rating.

FTU	Name	Owner Type	Total Area (ha)	Treatment Unit Objective	Local Risk Rating	Treatment Rationale/ Constraints/ Comments
Town of Comox						
20	Northeast Woods	Crown	51.2	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk), Demonstration Forest	Moderate	TU 20 is a younger Douglas-fir dominant stand, with dense crown closure and some ladder fuels. It is managed by the City of Comox and is heavily used by the public for recreation (e.g., dog walking) and e-bike users. It is surrounded by residential areas and is adjacent to Lazo Marsh Wildlife Park. Illegal yard waste dumping along property boundaries is a concern for residents and the Fire Department as access is limited and inhibits suppression activities. Stand tending activities could include creating defensible space along residential properties, increasing the fuel strata gap and to provide access for suppression activities. It is a potential location for a stand tending demonstration forest. Identified as a priority for further assessment in and treatment 2025/2026 CRI Grant.
21	Condor Park	Crown	3.6	Green Spaces	Moderate	TU 21 is a Douglas-fir leading urban forest surrounded by residential areas and adjacent to IR 1. The public uses the area for recreation and residents have expressed concerns regarding the risk of wildfire. Potential for green spaces funding to increasing the fuel strata gap and to increase visibility into the park.
22	Braybrook Creek Green Belt	Local Government (Comox)	12.0	Green Spaces or Wildfire Risk Reduction Activities (Stand Tending, Natural Asset Rating)	Low	TU 22 is a Douglas-fir and grand fir leading mixed deciduous stand. It is a sequence of parks/ greenways that runs along Brooklyn Creek. Includes Baybrook Nature Park, Mack Laing Park, Mc Donald Wood Park, Brooklyn Nature Park and the Brooklyn Creek Greenway. Mack Laing Park is the only C5 area, the rest of the parks are mostly a deciduous riparian area. It is surrounded by residential properties and is experiencing grand fir die off. There is high public use in these parks. Potential for green spaces (if maintained area less than 3ha) funding to reduce the fuel strata gap. Could also consider installing signage. It may also have the potential to enhance the Natural Asset Rating.
Village of Cumberland						
23	Cumberland Community Forest Park	Local Government (Cumberland)	200.9	Wildfire Risk Reduction Activities (Reduce Anthropogenic Risk, Stand Tending)	Moderate	TU 23 is the Cumberland Community Forest which has a diverse range of Douglas-fir leading forest ages and fuel strata gaps. It is heavily used for recreation (hiking and mountain biking, including e-bikes) and valuable to the community. There are three sections of the forest that are within one km of the town site (the original purchase, second purchase and space nugget). The water treatment plant located in space nugget. Aquifer intake is located adjacent to the original purchase. There are sensitive areas (wetland/marsh) between the parcels and the residential buildings. Any stand tending activities would require further stratification of potential treatment units to identify specific areas of wildfire vulnerabilities within the unit. Stand tending would be to increase fire department access, create defensible space around the water treatment plant, and to increase the fuel strata gap to reduce ladder fuel potential along younger/older forest edges. There is a covenant on the unit, but there are provisions allowing work to be completed to prevent wildfire, with approvals. Could be a BCWS training ground and/ or potential demonstration forest. Identified as a priority for further assessment in and treatment 2025/2026 CRI Grant.

FTU	Name	Owner Type	Total Area (ha)	Treatment Unit Objective	Local Risk Rating	Treatment Rationale/ Constraints/ Comments
24	Conservation Lands at Comox Lake	Local Government (Cumberland)	42.7	Wildfire Risk Reduction Activities (Stand Tending, Reduce Anthropogenic Risk)	Moderate	<p>TU 24 has a diverse range of Douglas-fir leading forest ages and fuel strata gaps. It is owned by the village and is within one km of cabins along Comox Lake. It is a section of the corridor along the lake, but the whole area is heavily accessed for swimming, with frequent unauthorized campfires and off-road motorized vehicle use. There is signage in place, and an ongoing public education campaign to promote awareness of the ecological sensitivity of the area. These activities should continue to reduce the anthropogenic risk. The adjacent parcel owned by the Cumberland Community Forest Society would have the same considerations if in the future ownership is transferred to local government.</p> <p>Any stand tending activities would require further stratification of potential treatment units to identify specific areas of wildfire vulnerabilities within the unit. Stand tending would be to increase the fuel strata gap, especially in the younger stands with heavily used trails. There is a covenant on the unit, but there are provisions allowing work to be completed to prevent wildfire, with approvals.</p>

Appendix E: Local Wildfire Threat Assessment Plots and Photos

Table 24: Local wildfire threat assessment plot data.














Plot Number	Date	Crown Species Composition (species %)	Depth	Surface and Ladder Fuel (0.1-3.0 meters in height)					Stand Structure and Composition (dominant and co-dominant stems)					Total Score	Rating	Slope (%)	Aspect	Fuel Type	Notes
				Surface Fuel Comp.	Dead and Down Material Continuity	Ladder Fuel	Ladder Horizontal	Understory Stems / ha	Overstory comp. (CBH)	Fuel Strata Gap	Stems / ha	Crown Closure	Dead and Dying						
1	26-Aug-24	PI8 Fdc2 Pw	1	4	4	15	2	2	4	3	2	2	5	44	Moderate	4	185	C-3	
2	26-Aug-24	Fdc8 PI2	1	6	4	15	2	4	4	3	3	2	2	45	Moderate	2	180	C-5	Fire threat rating revised from Low to Moderate.
9	12-Sep-24	Hm5 Ba3 Yc2	3	5	4	8	8	6	4	3	3	2	2	49	Moderate	8	290	C-5	
12	12-Sep-24	Hm25 Ba6 Yc15	1	4	4	15	8	4	4	3	3	2	2	50	Moderate	15	290	C-5	
13	12-Sep-24	Ba7 Hm2 Yc1	3	4	4	15	8	4	4	3	3	2	2	52	Moderate	48	25	M 1/2	
14	26-Aug-24	Mb4 Dr2 F2 Ss1 Bg1	1	4	4	5	8	2	2	1	2	1	2	34	Low	3	190	M 1/2	Fire threat rating revised from Moderate to Low.
15	26-Aug-24	Fdc6 Hw3 Ss1	3	4	4	15	2	2	4	3	2	1	2	42	Moderate	2	90	C-5	
16	26-Aug-24	Fdc10	3	4	4	15	2	2	4	3	3	2	2	44	Moderate	5	70	C-5	
17	26-Aug-24	Fdc10	3	4	4	15	2	2	4	3	3	2	2	44	Moderate	2	80	C-5	Fire threat rating revised from Low to Moderate.
18	26-Aug-24	Fdc10	1	4	4	15	2	2	5	5	3	2	2	45	Moderate	5	70	C-5	Fire threat rating revised from High to Moderate.
19	26-Aug-24	Fdc10	3	4	8	15	0	2	3	0	3	2	2	42	Moderate	6	80	C-5	
20	26-Aug-24	Fdc10	3	6	4	15	8	2	5	5	3	2	2	55	Moderate	5	110	D 1/2	
21	26-Aug-24	Ss9 Dr1	3	4	4	15	2	2	5	5	2	1	2	45	Moderate	3	280	C-5	
22	26-Aug-24	Fdc9 Mb1	3	4	4	15	2	2	4	3	2	2	2	43	Moderate	7	70	C-5	Fire threat rating revised from Low to Moderate.
23	12-Sep-24	Fd5 Bg4 Mb1	3	4	4	15	8	2	3	1	3	1	2	46	Moderate	3	20	C-5	Fire threat rating revised from High to Moderate.
25	27-Feb-25	Fd5 Bg5	1	15	4	8	0	4	5	5	0	0	2	44	Moderate	2	060	C-5	
27	24-Oct-24	Fd9 Dr1	1	4	4	15	8	4	5	5	0	1	2	49	Moderate	5	0	C-5	
28	24-Oct-24	Fd75 Dr25	1	4	4	5	8	4	5	5	0	1	2	39	Low	2	0	C-5	
29	12-Sep-24	Fd100	1	4	4	15	8	2	3	0	2	2	2	43	Moderate	3	0	C-5	Fire threat rating revised from Low to Moderate.
30	29-Aug-24	Fdc8 Mb1 Bg1	3	4	8	15	8	2	5	5	2	2	2	56	Moderate	14	60	C-5	
31	29-Aug-24	Fd7 Bg2 Dr1	3	4	8	15	10	2	5	5	3	2	2	59	High	6	350	C-5	
32	29-Aug-24	Hw6 Cw3 Dr1	3	4	4	8	2	2	3	3	2	1	2	34	Low	3	340	C-5	
33	29-Aug-24	Fdc8 Ac2	3	4	8	15	8	2	5	5	3	5	2	60	High	0	210	C-5	
35A	12-Sep-24	Fd9 Mb1	3	4	8	15	15	2	5	5	4	5	2	68	High	3	5	C-5	Fire threat rating revised from Low to High.




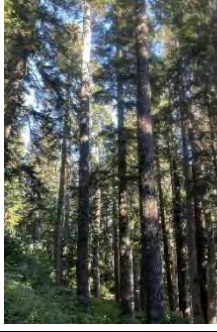




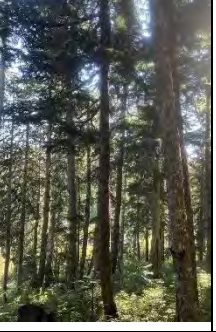




Plot Number	Date	Crown Species Composition (species %)	Depth	Surface and Ladder Fuel (0.1-3.0 meters in height)					Stand Structure and Composition (dominant and co-dominant stems)					Total Score	Rating	Slope (%)	Aspect	Fuel Type	Notes
				Surface Fuel Comp.	Dead and Down Material Continuity	Ladder Fuel	Ladder Horizontal	Understory Stems / ha	Overstory comp. (CBH)	Fuel Strata Gap	Stems / ha	Crown Closure	Dead and Dying						
35	12-Sep-24	Fd7 Cw2 Hw1	1	4	8	15	8	4	3	1	3	1	2	50	Moderate	6	0	C-5	
36	29-Aug-24	Dr6 Fdc2 Ac2	1	6	8	5	2	4	5	5	2	2	2	42	Moderate	1	5	N 1/2	
37	29-Aug-24	Dr7 Hw3	3	4	4	5	2	2	5	5	2	1	2	35	Low	3	80	M 1/2	
39	29-Aug-24	Dr9 Fdc1	1	4	8	5	2	2	4	3	2	1	2	34	Low	4	240	D 1/2	Fire threat rating revised from Moderate to Low.
40	12-Sep-24	Hw8 Pl2	5	6	8	8	8	4	5	5	3	1	2	55	Moderate	2	10	C-5	Fire threat rating revised from Low to Moderate.
41	30-Aug-24	Fdc6 Hw2 Cw2	3	4	4	15	2	2	4	3	2	2	2	43	Moderate	6	70	C-5	Fire threat rating revised from Low to Moderate.
42	30-Aug-24	Mb6 Ac4	3	4	4	0	2	2	0	0	0	1	2	18	Low	7	230	D 1/2	Fire threat rating revised from Moderate to Low.
43	30-Aug-24	Fdc10	3	6	4	15	2	4	3	1	3	2	2	45	Moderate	13	240	C-5	Fire threat rating revised from High to Moderate.
44	28-Aug-24	Fdc10	3	4	8	15	0	2	5	5	0	0	2	44	Moderate	2	80	C-3	Fire threat rating revised from High to Moderate.
45	28-Aug-24	Fdc6 Cw4	3	4	4	15	2	2	4	3	2	1	2	42	Moderate	2	50	C-5	
46	28-Aug-24	Fdc7 Dr2 Ss1	5	4	4	15	2	2	3	1	3	1	2	42	Moderate	14	80	C-5	FBP Fuel Type revised from D 1/2 to C-5
47	28-Aug-24	Fdc7 Mb3	3	4	4	15	2	2	3	0	0	0	2	35	Low	6	70	C-5	
48	28-Aug-24	Fdc7 Mb3	3	4	4	15	2	2	4	3	2	1	2	42	Moderate	5	50	C-5	FBP Fuel Type revised from D 1/2 to C-5
49	28-Aug-24	Fdc9 Mb1	3	6	8	15	8	2	5	5	3	5	2	62	High	6	60	C-3	FBP Fuel Type revised from C-5 to C-3
50	28-Aug-24	Fdc8 Cw2	3	6	4	15	2	2	4	3	2	2	2	45	Moderate	3	190	C-5	
51	28-Aug-24	Fdc10	3	4	8	15	2	2	3	1	3	2	2	45	Moderate	8	60	C-5	
52	28-Aug-24	Hw6 Fdc3 Cw1	5	6	8	8	2	4	4	3	2	2	2	46	Moderate	4	80	C-5	
53	28-Aug-24	Fd5 Dr4 Cw1	3	4	8	15	2	2	4	3	2	2	2	47	Moderate	4	60	C-5	
56	27-Aug-24	Fdc10	3	4	8	15	2	2	4	3	4	5	2	52	Moderate	12	330	C-3	Fire threat rating revised from High to Moderate.
57	27-Aug-24	Fdc8 Cw2	3	4	4	15	2	4	3	1	3	2	2	43	Moderate	3	60	C-5	
58	27-Aug-24	F4 Bg3 Pl2 Dr1	3	4	0	0	0	2	0	1	0	0	2	12	Low	5	130	O-1 a/b	
59	27-Aug-24	Fdc8 Cw2	3	4	8	15	2	2	4	3	3	2	2	48	Moderate	5	330	C-5	
63	27-Aug-24	Fdc9 Hw1 Pw1	3	6	8	15	2	6	5	5	2	0	2	54	Moderate	9	320	D 1/2	Fire threat rating revised from Low to Moderate.
64	27-Aug-24	Fdc6 Cw3 Hw1	5	6	4	15	2	2	4	3	3	2	2	48	Moderate	4	80	C-5	

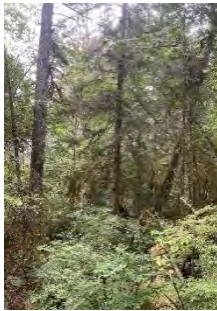








Plot Number	Date	Crown Species Composition (species %)	Depth	Surface and Ladder Fuel (0.1-3.0 meters in height)					Stand Structure and Composition (dominant and co-dominant stems)					Total Score	Rating	Slope (%)	Aspect	Fuel Type	Notes
				Surface Fuel Comp.	Dead and Down Material Continuity	Ladder Fuel	Ladder Horizontal	Understory Stems / ha	Overstory comp. (CBH)	Fuel Strata Gap	Stems / ha	Crown Closure	Dead and Dying						
67	30-Aug-24	Bg5 Fdc4 Cw1	3	6	4	15	8	2	4	3	3	2	2	54	Moderate	37	250	M 1/2	Fire threat rating revised from Low to Moderate.
68	30-Aug-24	Fd10	3	4	8	15	2	4	3	1	2	1	2	45	Moderate	5	180	C-5	
69	30-Aug-24	Fdc10	3	6	4	15	2	2	3	1	4	2	2	46	Moderate	4	40	C-5	Fire threat rating revised from Low to Moderate.
70	30-Aug-24	Fdc10	3	4	4	15	2	2	3	1	4	2	2	42	Moderate	6	70	C-5	Fire threat rating revised from Low to Moderate.
71	12-Nov-24	Fd6 Cw3 Bg1	3	4	4	15	2	2	4	3	2	2	2	43	Moderate	10	35	C-5	
72	12-Nov-24	Ac5 Mb3 Bg2	3	4	4	5	2	2	2	1	3	1	2	29	Low	4	60	D 1/2	
73	12-Nov-24	Fd6 Bg2 Mb1 Hw1	3	4	4	15	2	2	4	3	3	2	2	44	Moderate	6	345	C-5	
74	12-Nov-24	Fd6 Bg2 Mb2	3	4	4	15	2	2	4	3	2	1	2	42	Moderate	13	35	C-5	
75	12-Nov-24	Fd6 Cw3 Mb1	3	6	4	15	2	4	4	3	2	1	2	46	Moderate	4	70	C-5	
76	12-Nov-24	Bg7 Dr2 Ss1	5	4	4	8	2	2	4	3	2	1	2	37	Low	4	55	C-5	
77	12-Nov-24	Ss5 Fd2 Cw2 Ac1	3	4	4	8	2	2	4	3	2	1	2	35	Low	7	70	C-5	
78	12-Nov-24	Fd6 Hw3 Cw1	3	4	4	15	2	2	4	3	3	2	2	44	Moderate	35	15	C-5	
79	12-Nov-24	Fd100	3	4	4	15	8	2	4	3	3	2	2	50	Moderate	9	70	C-5	
80	24-Oct-24	Fd95 Pw05	1	4	8	15	10	4	3	1	3	2	2	53	Moderate	3	25	C-5	
80A	12-Nov-24	Fd8 Hw2	5	6	4	15	2	2	4	3	3	2	2	48	Moderate	6	45	C-5	
82	12-Nov-24	Fd10	3	4	4	15	2	2	4	3	3	2	2	44	Moderate	4	50	C-5	
85	12-Nov-24	Fd5 Ss3 Ac2	5	4	4	15	2	2	4	3	2	1	2	44	Moderate	6	80	C-5	
86	13-Nov-24	Fd9 Ac1	3	4	4	15	2	2	4	3	2	2	2	43	Moderate	7	80	C-5	
87	13-Nov-24	Fd5 Bg3 Mb2	3	4	4	15	2	2	4	3	2	2	2	43	Moderate	4	45	C-5	
88	13-Nov-24	Bg4 Fd3 M2 Ss1	3	4	4	15	2	2	4	3	2	1	2	42	Moderate	4	25	C-5	
89	13-Nov-24	Fd10	3	4	4	15	2	2	4	3	3	2	2	44	Moderate	7	305	C-5	
90	13-Nov-24	Fd10	3	4	4	15	2	2	3	1	3	5	2	44	Moderate	6	90	C-5	
91	13-Nov-24	Fd10	3	4	4	15	2	2	3	1	3	5	2	44	Moderate	7	285	C-5	
92	13-Nov-24	Dr10	3	4	4	0	0	2	0	1	2	1	2	19	Low	6	250	D 1/2	
95	13-Nov-24	Fd10	3	4	4	15	2	2	4	3	3	2	2	44	Moderate	8	105	C-5	
100	27-Feb-25	Fd9 Hw08 PI02	1	6	4	15	8	6	3	5	3	2	2	55	Moderate	3	312	C-5	
101	27-Feb-25	Fd8 Cw2	3	6	8	15	8	4	3	5	3	2	2	59	High	2	054	C-5	
102	27-Feb-25	Fd8 Dr1 Mb1	1	4	8	5	10	4	3	5	4	2	2	48	Moderate	4	002	C-5	

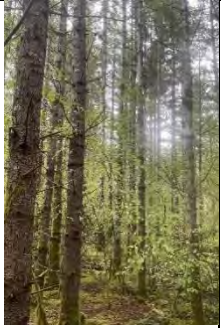


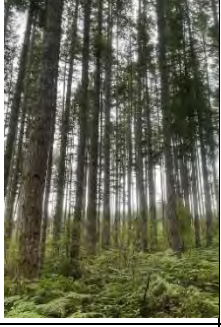









Plot Number	Date	Crown Species Composition (species %)	Depth	Surface and Ladder Fuel (0.1-3.0 meters in height)					Stand Structure and Composition (dominant and co-dominant stems)					Total Score	Rating	Slope (%)	Aspect	Fuel Type	Notes
				Surface Fuel Comp.	Dead and Down Material Continuity	Ladder Fuel	Ladder Horizontal	Understory Stems / ha	Overstory comp. (CBH)	Fuel Strata Gap	Stems / ha	Crown Closure	Dead and Dying						
103	27-Feb-25	Fd75 Mb25	1	4	4	5	2	2	3	1	2	2	2	28	Low	5	220	C-5	
104	27-Feb-25	Fd9 Mb1	1	4	4	5	1	2	3	0	3	1	2	27	Low	3	324	C-5	
105	27-Feb-25	Mb5 Atc5	1	4	8	0	0	2	0	0	2	1	5	23	Low	1	023	D – 1/2	
106	27-Feb-25	Fd6 Bg2 Mb2	1	4	4	5	2	2	2	1	3	1	2	27	Low	2	214	C-5	







Table 25: Local wildfire threat assessment plot photos.














Plot	Ladder	Surface	Crown	North	South	East	West
1							
2							
9							










Plot	Ladder	Surface	Crown	North	South	East	West
12							
13							
14							






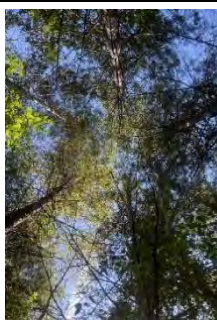



Plot	Ladder	Surface	Crown	North	South	East	West
15							
16							
17							










Plot	Ladder	Surface	Crown	North	South	East	West
18							
19							
20							








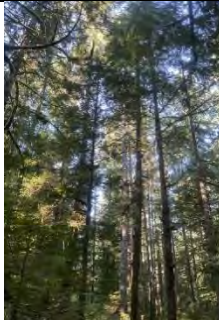





Plot	Ladder	Surface	Crown	North	South	East	West
21							
22							
23							














Plot	Ladder	Surface	Crown	North	South	East	West
25							
27							
28							





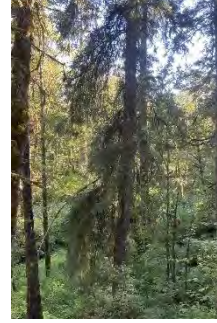
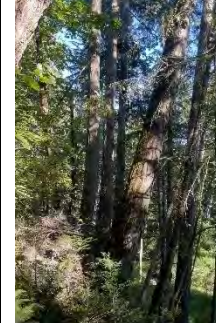



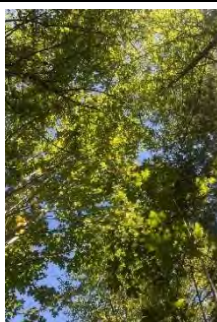



Plot	Ladder	Surface	Crown	North	South	East	West
29							
30							
31							

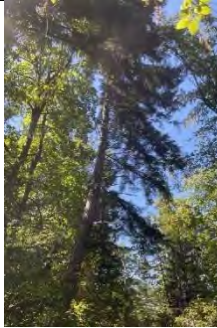


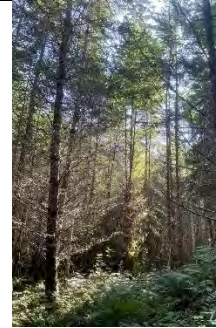
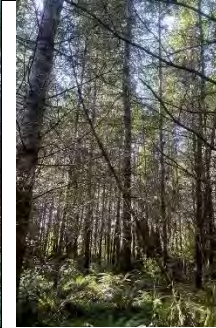







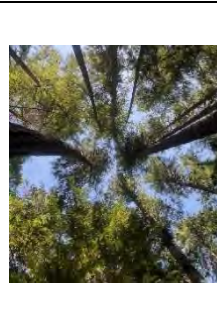
Plot	Ladder	Surface	Crown	North	South	East	West
32							
33							
35							



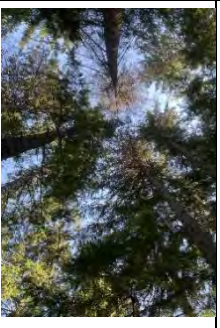










Plot	Ladder	Surface	Crown	North	South	East	West
35A							
37							
39							






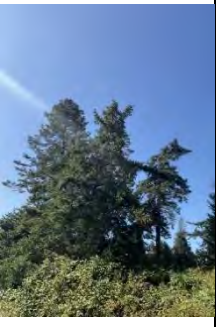



Plot	Ladder	Surface	Crown	North	South	East	West
40							
41							
42							



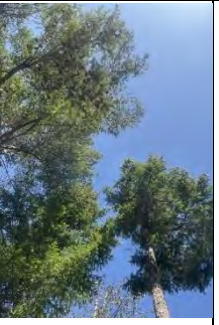
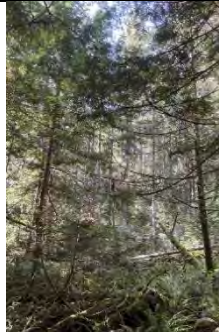



Plot	Ladder	Surface	Crown	North	South	East	West
43							
44							
45							







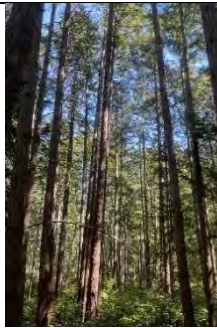


Plot	Ladder	Surface	Crown	North	South	East	West
46							
47							
48							

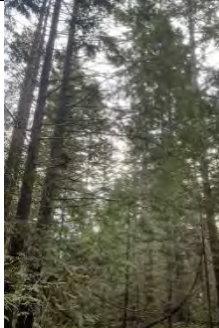








Plot	Ladder	Surface	Crown	North	South	East	West
49							
50							
51							










Plot	Ladder	Surface	Crown	North	South	East	West
52							
53							
56							



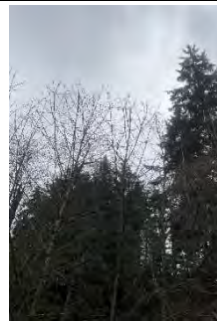

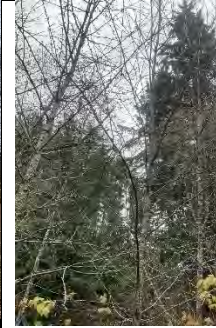








Plot	Ladder	Surface	Crown	North	South	East	West
57							
58							
59							





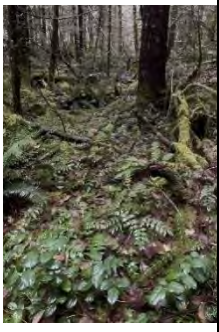



Plot	Ladder	Surface	Crown	North	South	East	West
63							
64							
67							




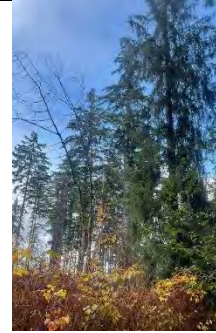
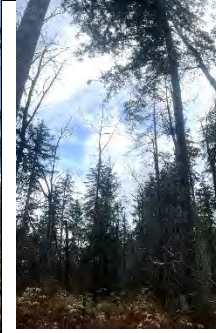




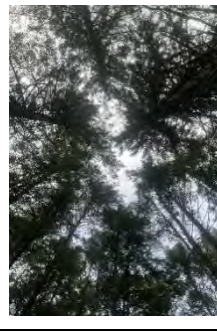
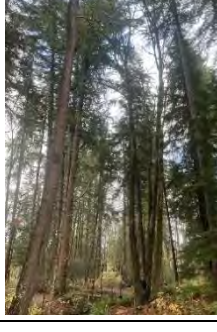


Plot	Ladder	Surface	Crown	North	South	East	West
68							
69							
70							














Plot	Ladder	Surface	Crown	North	South	East	West
71							
72							
73							




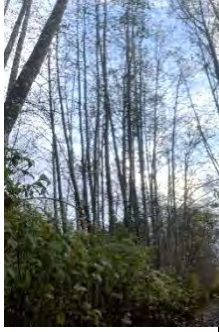





Plot	Ladder	Surface	Crown	North	South	East	West
74							
75							
76							

Plot	Ladder	Surface	Crown	North	South	East	West
77							
78							
79							

Plot	Ladder	Surface	Crown	North	South	East	West
80							
80A							
82							



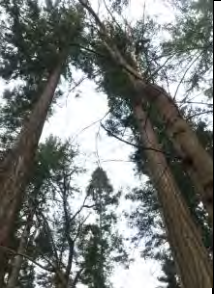




Plot	Ladder	Surface	Crown	North	South	East	West
85							
86							
87							

Plot	Ladder	Surface	Crown	North	South	East	West
88							
89							
90							

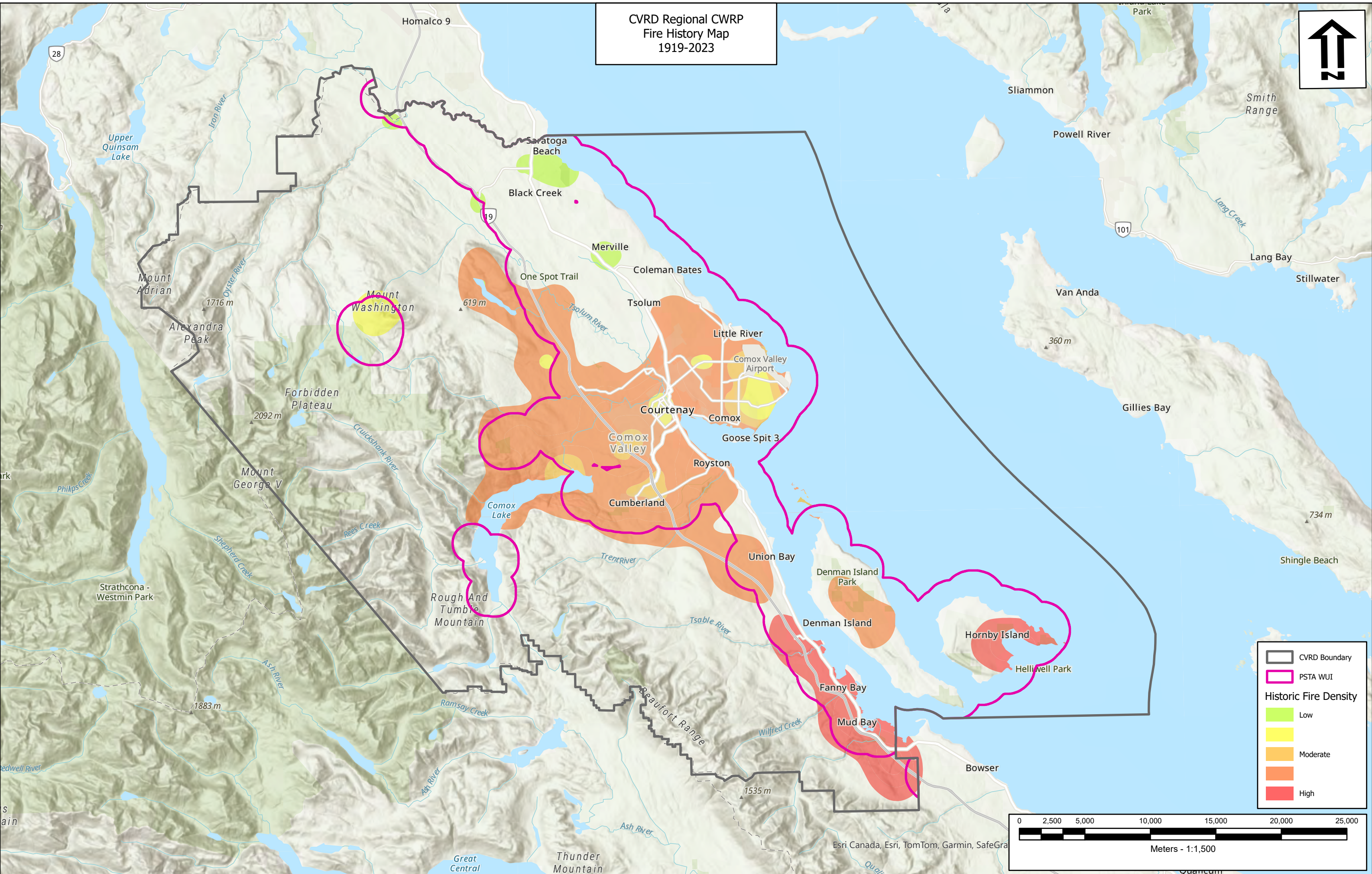
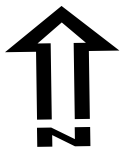
Plot	Ladder	Surface	Crown	North	South	East	West
91							
92							
95							

Plot	Ladder	Surface	Crown	North	South	East	West
100							
101							
102							

Plot	Ladder	Surface	Crown	North	South	East	West
103							
104							
105							

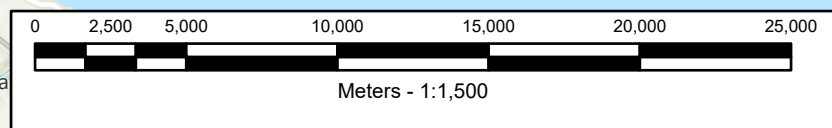
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106							

CVRD Regional CWRP
Fire History Map
1919-2023



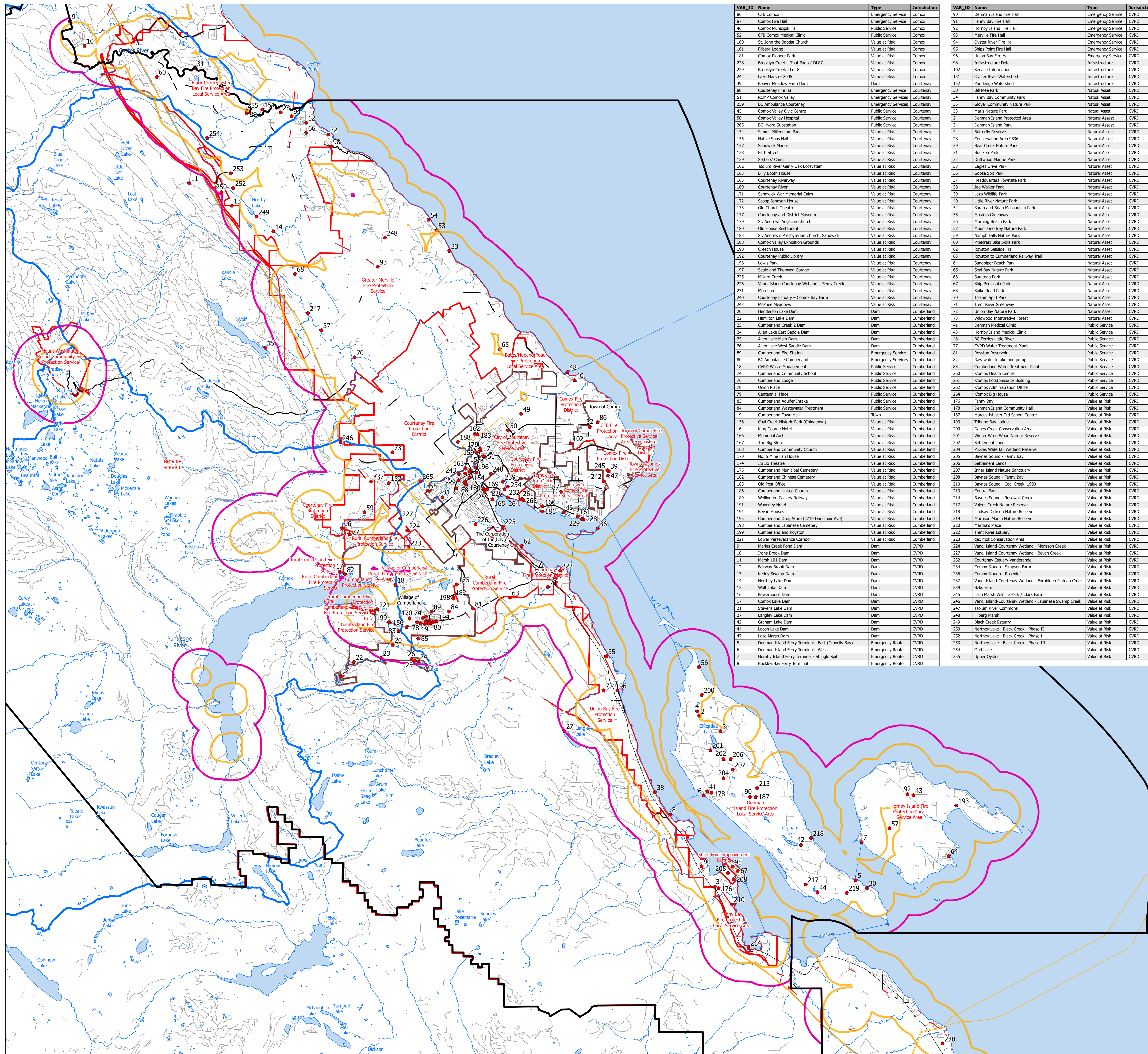
Legend:

- CVRD Boundary
- PSTA WUI
- Historic Fire Density
 - Low
 - Moderate
 - High



CVRD Regional Wildfire Resiliency Plan CRI-688 Overview

Map 1: Area of Interest



VAR ID	Name	Type	Jurisdiction	VAR ID	Name	Type	Jurisdiction
86	CFB Comox	Emergency Service	Comox	90	Denman Island Fire Hall	Emergency Service	CVRD
87	Comox Fire Hall	Emergency Service	Comox	91	Fanny Bay Fire Hall	Emergency Service	CVRD
46	Comox Municipal Hall	Public Service	Comox	92	Hornby Island Fire Hall	Emergency Service	CVRD
52	CFB Comox Medical Clinic	Public Service	Comox	93	Merville Fire Hall	Emergency Service	CVRD
160	St. John the Baptist Church	Value at Risk	Comox	94	Oyster River Fire Hall	Emergency Service	CVRD
161	Filberg Lodge	Value at Risk	Comox	95	Ships Point Fire Hall	Emergency Service	CVRD
181	Comox Pioneer Park	Value at Risk	Comox	96	Union Bay Fire Hall	Emergency Service	CVRD
228	Brooklyn Creek - The Part of DL97	Value at Risk	Comox	98	Brooklyn Creek - The Part of DL97	Infrastructure	CVRD
229	Brooklyn Creek - Lot B	Value at Risk	Comox	102	Service Information	Infrastructure	CVRD
242	Lazo Marsh - 2005	Value at Risk	Comox	151	Oyster River Watershed	Infrastructure	CVRD
49	Beaver Meadow Farm Dam	Dam	Courtenay	152	Puntledge Watershed	Infrastructure	CVRD
88	Courtenay Fire Hall	Emergency Service	Courtenay	30	Bill Mee Park	Natural Asset	CVRD
51	RCMP Comox Valley	Emergency Services	Courtenay	34	Fanny Bay Community Park	Natural Asset	CVRD
259	BC Ambulance Courtenay	Emergency Services	Courtenay	37	Headquarters Townsite Park	Natural Asset	CVRD
45	Comox Valley Civic Centre	Public Service	Courtenay	53	Maris Nature Park	Natural Asset	CVRD
50	Comox Valley Hospital	Public Service	Courtenay	2	Denman Island Protected Area	Natural Asset	CVRD
265	BC Hydro Substation	Public Service	Courtenay	3	Denman Island Park	Natural Asset	CVRD
154	Simms Millennium Park	Value at Risk	Courtenay	4	Butterfly Reserve	Natural Asset	CVRD
155	Natives Sons Hall	Value at Risk	Courtenay	28	Conservation Area 9836	Natural Asset	CVRD
157	Sandwich Manor	Value at Risk	Courtenay	29	Star Creek Nature Park	Natural Asset	CVRD
158	Fifth Street	Value at Risk	Courtenay	31	Bracken Park	Natural Asset	CVRD
159	Settlers' Cairn	Value at Risk	Courtenay	32	Driftwood Marine Park	Natural Asset	CVRD
162	Tsolium River Garry Oak Ecosystem	Value at Risk	Courtenay	33	Eagles Drive Park	Natural Asset	CVRD
163	Billy Booth House	Value at Risk	Courtenay	36	Goose Spit Park	Natural Asset	CVRD
165	Courtenay Overway	Value at Risk	Courtenay	37	Headquarters Townsite Park	Natural Asset	CVRD
169	Courtenay River	Value at Risk	Courtenay	38	Joe Walker Park	Natural Asset	CVRD
171	Sandwich War Memorial Cairn	Value at Risk	Courtenay	39	Lazo Wildlife Park	Natural Asset	CVRD
172	Scoop Johnson House	Value at Risk	Courtenay	40	Little River Nature Park	Natural Asset	CVRD
173	Old Church Theatre	Value at Risk	Courtenay	54	Sarah and Brian McLoughlin Park	Natural Asset	CVRD
177	Courtenay and District Museum	Value at Risk	Courtenay	55	Masters Greenway	Natural Asset	CVRD
179	St. Andrew's Anglican Church	Value at Risk	Courtenay	56	Morning Beach Park	Natural Asset	CVRD
180	Old House Restaurant	Value at Risk	Courtenay	57	Mount Geoffrey Nature Park	Natural Asset	CVRD
183	St. Andrew's Presbyterian Church, Sandwick	Value at Risk	Courtenay	59	Nymph Falls Nature Park	Natural Asset	CVRD
188	Comox Valley Exhibition Grounds	Value at Risk	Courtenay	60	Pincrest Bike Skills Park	Natural Asset	CVRD
190	Crech House	Value at Risk	Courtenay	62	Royston Seaside Trail	Natural Asset	CVRD
192	Courtenay Public Library	Value at Risk	Courtenay	63	Royston to Cumberland Railway Trail	Natural Asset	CVRD
196	Leves Park	Value at Risk	Courtenay	64	Lower Beach Park	Natural Asset	CVRD
197	Seale and Thomson Garage	Value at Risk	Courtenay	65	Seal Bay Nature Park	Natural Asset	CVRD
225	Millard Creek	Value at Risk	Courtenay	66	Saratoga Park	Natural Asset	CVRD
226	Vanc. Island-Courtenay Wetland - Piercy Creek	Value at Risk	Courtenay	67	Ship Peninsula Park	Natural Asset	CVRD
231	Morrison	Value at Risk	Courtenay	68	Spike Road Park	Natural Asset	CVRD
240	Courtenay Estuary - Comox Bay Farm	Value at Risk	Courtenay	68	Tsolium Spit Park	Natural Asset	CVRD
243	McPhee Meadows	Value at Risk	Courtenay	71	Trent River Greenway	Natural Asset	CVRD
243	McPhee Meadows	Value at Risk	Courtenay	72	Union Bay Nature Park	Natural Asset	CVRD
243	McPhee Meadows	Value at Risk	Courtenay	73	Wildwood Interpretive Forest	Natural Asset	CVRD
243	McPhee Meadows	Value at Risk	Courtenay	73	Wildwood Interpretive Forest	Natural Asset	CVRD
243	McPhee Meadows	Value at Risk	Courtenay	73	Wildwood Interpretive Forest	Natural Asset	CVRD

- Critical Infrastructure & VAR
 - CVRD Boundary & AOI
 - BCWR Wild 1km Buffer
 - FWA Water Bodies
 - Fire Protection Areas
 - Municipalities
 - Community Watershed
 - FWA Water Bodies
- Road Type**
- collector; arterial
 - ferry
 - highway; freeway
 - lane; local; driveway; service; unclassified
 - Transmission Lines
 - Railway Track Line
 - FWA Stream

N
Scale: 1:110,000
0 2.5 5 10 Km

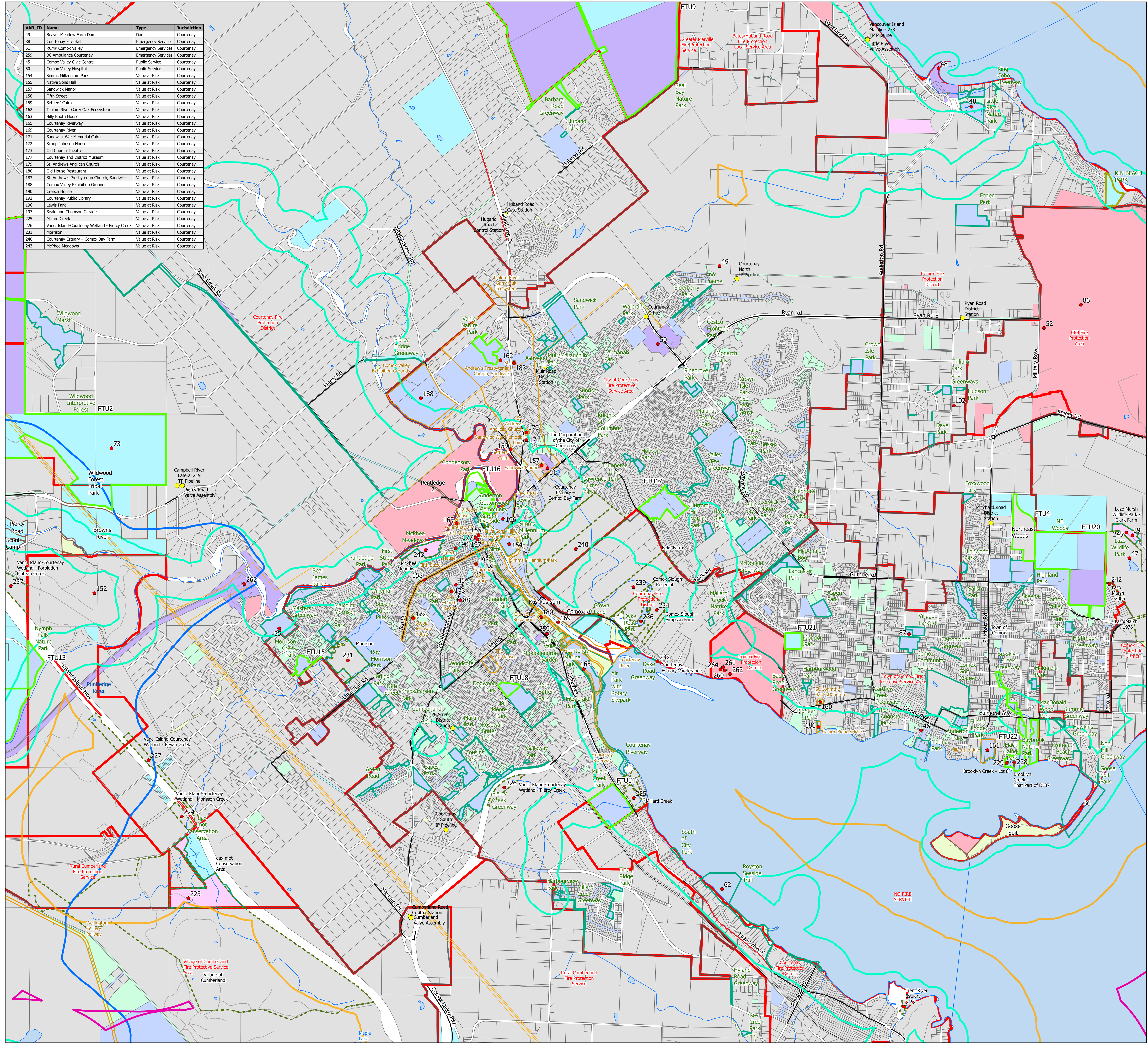
Datum/Projection
NAD 1983 BC Environment Albers

Draft: E. Ross
Date: Mar 10, 2025

CVRD Regional Wildfire Resiliency Plan CRI-688 Courtenay

Map 1: Area of Interest

VAR_ID	Name	Type	Jurisdiction
49	Beaver Meadow Farm Dam	Dam	Courtenay
88	Courtenay Fire Hall	Emergency Service	Courtenay
51	RCMP Comox Valley	Emergency Services	Courtenay
259	BC Ambulance Courtenay	Emergency Services	Courtenay
45	Comox Valley Civic Centre	Public Service	Courtenay
50	Comox Valley Hospital	Public Service	Courtenay
114	Simms Millennium Park	Value at Risk	Courtenay
155	Native Sons Hall	Value at Risk	Courtenay
157	Sandwick Manor	Value at Risk	Courtenay
158	Fifth Street	Value at Risk	Courtenay
159	Settlers' Cairn	Value at Risk	Courtenay
162	Tosum River Garry Oak Ecosystem	Value at Risk	Courtenay
163	Billy Booth House	Value at Risk	Courtenay
165	Courtenay Riverway	Value at Risk	Courtenay
169	Courtenay River	Value at Risk	Courtenay
171	Sandwick War Memorial Cairn	Value at Risk	Courtenay
172	Scop Johnson House	Value at Risk	Courtenay
173	Old Church Theatre	Value at Risk	Courtenay
177	Courtenay and District Museum	Value at Risk	Courtenay
179	St. Andrew's Anglican Church	Value at Risk	Courtenay
180	Old House Restaurant	Value at Risk	Courtenay
183	St. Andrew's Presbyterian Church, Sandwick	Value at Risk	Courtenay
188	Comox Valley Exhibition Grounds	Value at Risk	Courtenay
190	Creech House	Value at Risk	Courtenay
192	Courtenay Public Library	Value at Risk	Courtenay
196	Lewis Park	Value at Risk	Courtenay
197	Seale and Thomson Garage	Value at Risk	Courtenay
225	Millard Creek	Value at Risk	Courtenay
226	Vanc. Island-Courtenay Wetland - Percy Creek	Value at Risk	Courtenay
231	Morrison	Value at Risk	Courtenay
240	Courtenay Esplanade - Comox Bay Farm	Value at Risk	Courtenay
243	McPhee Meadows	Value at Risk	Courtenay



- Critical Infrastructure & VAR
 - Forts Infrastructure Points
 - Proposed Treatments
 - CVRD Boundary & AOI
 - BCWF WUI 1km Buffer
 - PSTA 2KM WUI
 - K'moks First Nation Treaty Lands
 - Fire Protection Areas
 - Municipalities
 - Community Watershed
 - K'moks First Nation AOP
 - NGO Conservation Areas
 - CCFS
- PMBC Parcel Fabric**
- PARCEL_TYPE
- Crown Agency
 - Crown Provincial
 - Federal
 - First Nations
 - Local Government
 - Mixed Ownership
 - Municipal
 - Private
 - Unclassified
 - Unsettled Provincial
 - BC Parks
 - Historic Sites
 - Regional Parks
 - FWA Water Bodies
- Road Type**
- collector; arterial
 - ferry
 - highway; freeway
 - lane; local; driveway; service; unclassified
 - Transmission Lines
 - Railway Track Line
 - FWA Stream

N

Scale: 1:23,000

0 0.5 1 2 Km

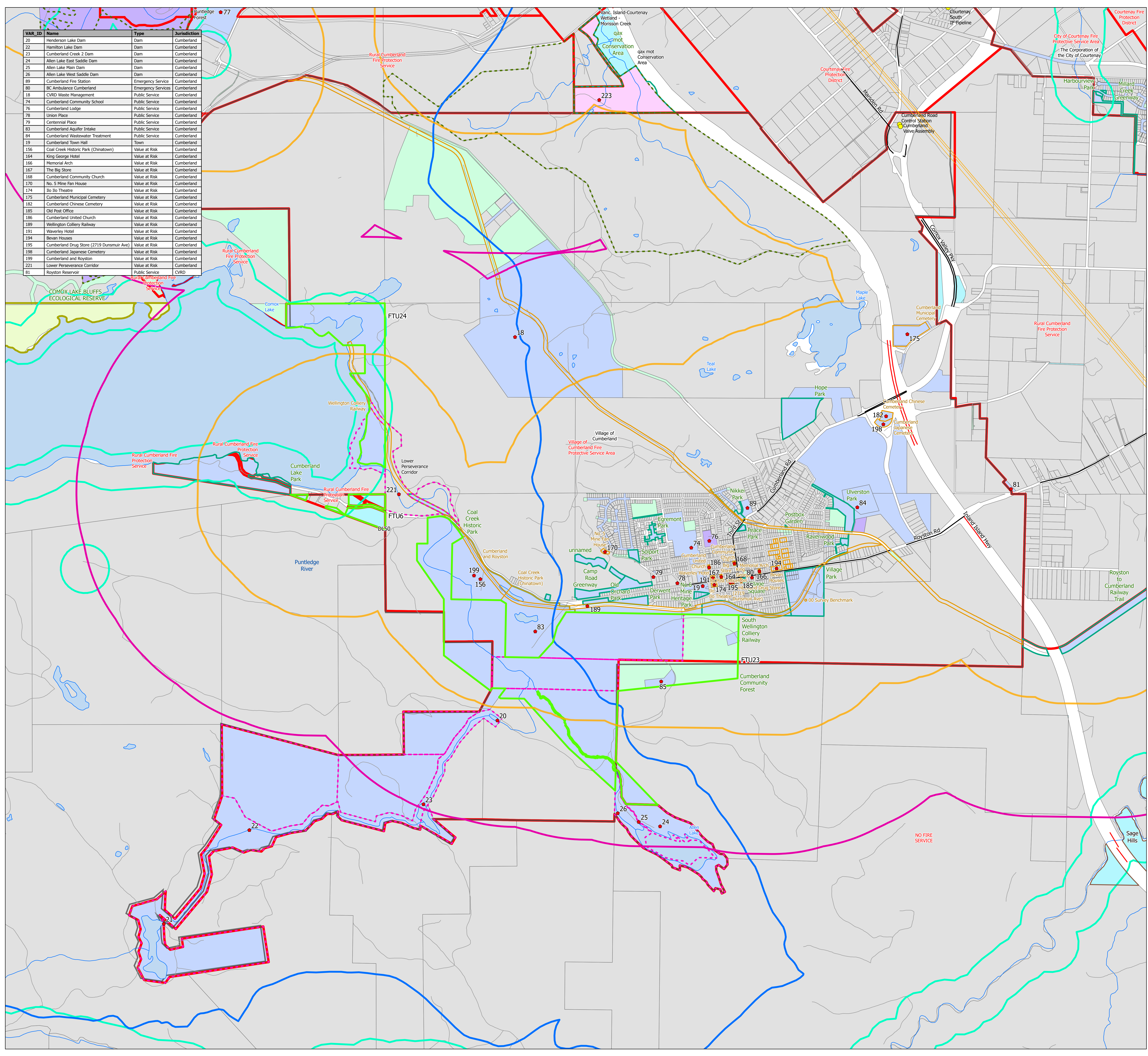
Datum/Projection
NAD 1983 BC Environment Albers

Draft: E. Ross
Date: Mar 10, 2025

CVRD Regional Wildfire Resiliency Plan CRI-688 Cumberland

Map 1: Area of Interest

VAR_ID	Name	Type	Jurisdiction
20	Henderson Lake Dam	Dam	Cumberland
22	Hamilton Lake Dam	Dam	Cumberland
23	Cumberland Creek 2 Dam	Dam	Cumberland
24	Allen Lake East Saddle Dam	Dam	Cumberland
25	Allen Lake Main Dam	Dam	Cumberland
26	Allen Lake West Saddle Dam	Dam	Cumberland
89	Cumberland Fire Station	Emergency Service	Cumberland
80	BC Ambulance Cumberland	Emergency Service	Cumberland
18	CVRD Waste Management	Public Service	Cumberland
74	Cumberland Community School	Public Service	Cumberland
76	Cumberland Lodge	Public Service	Cumberland
78	Union Place	Public Service	Cumberland
79	Centennial Place	Public Service	Cumberland
83	Cumberland Aquifer Intake	Public Service	Cumberland
84	Cumberland Wastewater Treatment	Public Service	Cumberland
19	Cumberland Town Hall	Town	Cumberland
156	Coal Creek Historic Park (Chinatown)	Value at Risk	Cumberland
164	King George Hotel	Value at Risk	Cumberland
166	Memorial Arch	Value at Risk	Cumberland
167	The Big Store	Value at Risk	Cumberland
168	Cumberland Community Church	Value at Risk	Cumberland
170	No. 5 Mine Fan House	Value at Risk	Cumberland
174	Bo Jo Theatre	Value at Risk	Cumberland
175	Cumberland Municipal Cemetery	Value at Risk	Cumberland
182	Cumberland Chinese Cemetery	Value at Risk	Cumberland
185	Old Post Office	Value at Risk	Cumberland
186	Cumberland United Church	Value at Risk	Cumberland
189	Wellington Colliery Railway	Value at Risk	Cumberland
191	Waverley Hotel	Value at Risk	Cumberland
194	Bevan Houses	Value at Risk	Cumberland
195	Cumberland Drug Store (2719 Dunsmuir Ave)	Value at Risk	Cumberland
198	Cumberland Japanese Cemetery	Value at Risk	Cumberland
199	Cumberland and Royston	Value at Risk	Cumberland
221	Lower Perseverance Corridor	Value at Risk	CVRD
81	Royston Reservoir	Public Service	CVRD



- Critical Infrastructure & VAR
 - Forts Infrastructure Points
 - Proposed Treatments
 - CVRD Boundary & AOI
 - BCWF WUI 1km Buffer
 - BCWF WUI 2km Buffer
 - K'ómoks First Nation Treaty Lands
 - Fire Protection Areas
 - Municipalities
 - Community Watershed
 - K'ómoks First Nation AOP
 - NGO Conservation Areas
 - CCFS
- PMBC Parcel Fabric**
- OWNER_TYPE**
- Crown Agency
 - Crown Provincial
 - Federal
 - First Nations
 - Local Government
 - Mixed Ownership
 - Municipal
 - Private
 - Unclassified
 - Unintended Provincial
 - BC Parks
 - Historic Sites
 - Regional Parks
 - FWA Water Bodies
- Road Type**
- collector; arterial
 - ferry
 - highway; freeway
 - lane; local; driveway; service; unclassified
 - Transmission Lines
 - Railway Track Line
 - FWA Stream

N

Scale: 1:17,000

0 0.38 0.75 1.5 Km

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CVRD Regional Wildfire Resiliency Plan CRI-688

Map 2: Local Fire Threat

- CVRD Boundary & AOI
- PSTA 2KM WUI
- Road Type**
- collector; arterial
- ferry
- highway; freeway
- lane; local; driveway; service; unclassified
- Transmission Lines
- FWA Water Bodies
- FWA Stream
- Municipalities
- BCWF WUI 1km Buffer
- Railway Track Line
- Local Fire Threat**
- Rating**
- Extreme
- High
- Low
- Moderate
- No Data (Private Land)
- No Data (Private Managed Forest Land)
- Water

FIRE_THR_1	Area_Ha
Extreme	45.8
High	2758
Low	13365.5
Moderate	14596.3
No Data (Private Land)	35517.8
No Data (Private Managed Forest Land)	104492.3
Water	81166.3


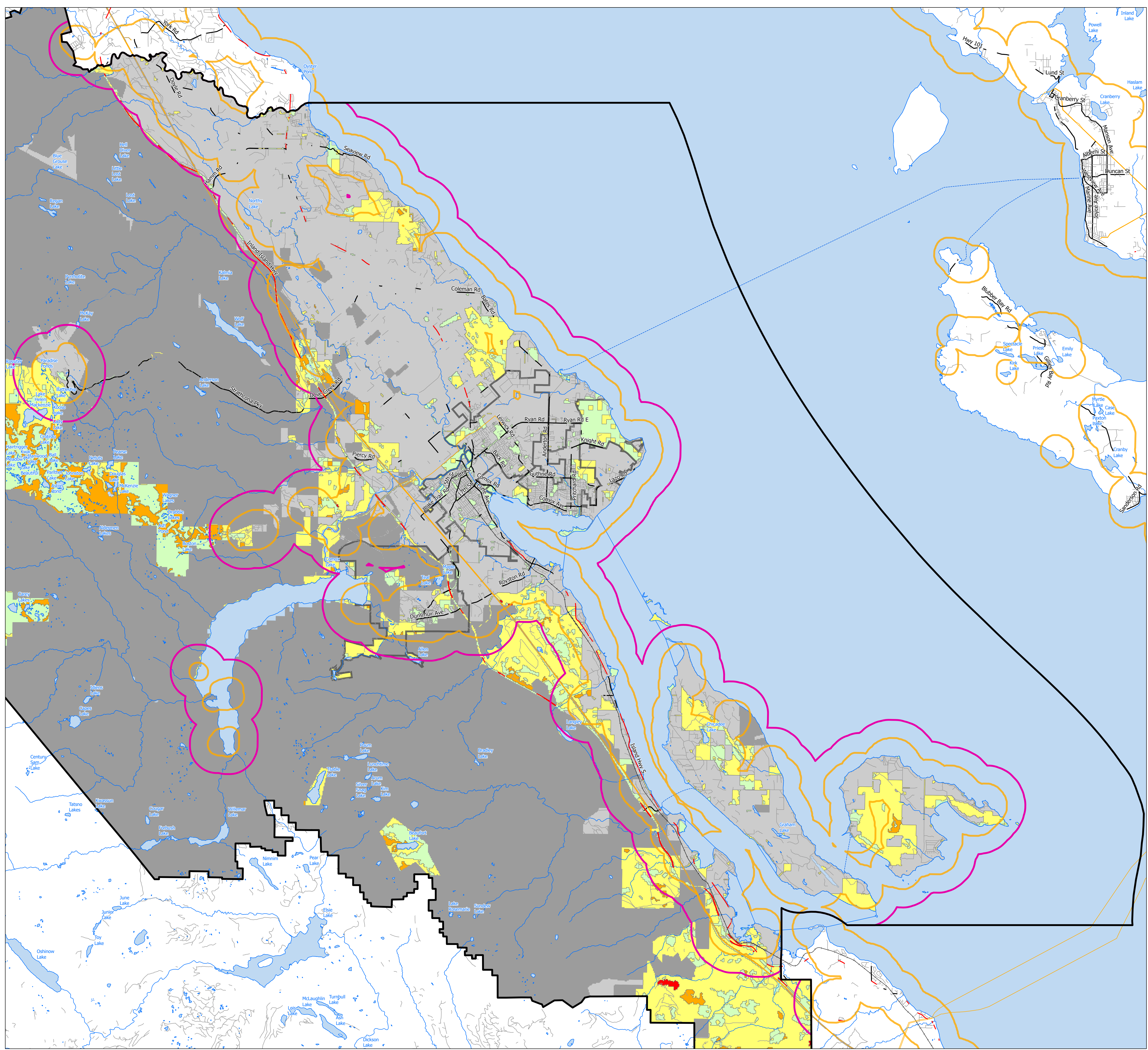
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NAD 1983 BC Environment Albers

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CVRD Regional Wildfire Resiliency Plan CRI-688 Courtenay

Map 2: Local Fire Threat

- CVRD Boundary & AOI
- PSTA 2KM WUI
- Road Type**
- collector; arterial
- ferry
- highway; freeway
- lane; local; driveway; service; unclassified
- Transmission Lines
- FWA Water Bodies
- FWA Stream
- Local Fire Threat**
- Rating**
- Low
- Moderate
- High
- Extreme
- No Data (Private Land)
- No Data (Private Managed Forest Land)
- Water
- Municipalities
- BCWF WUI 1km Buffer
- Railway Track Line

Local_Fire_Threat	AREA_HA
Moderate	59
Water	105
Low	412
No Data (Private Land)	2799


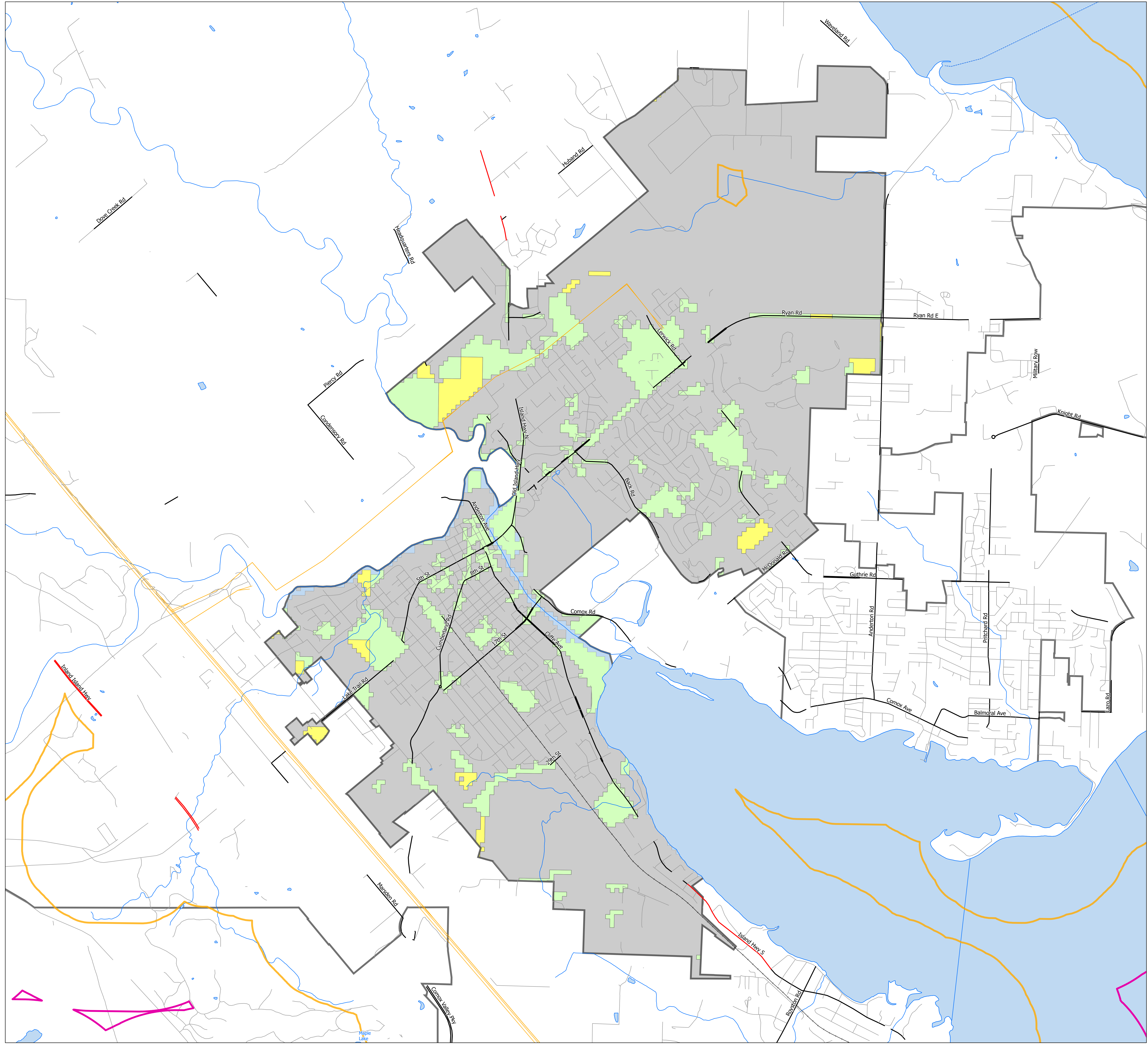
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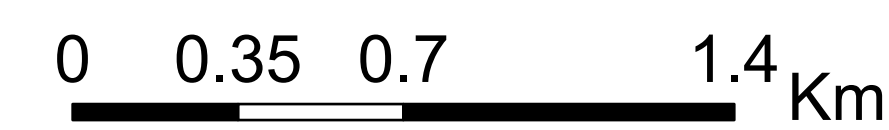
CVRD Regional Wildfire Resiliency Plan CRI-688 Comox

Map 2: Local Fire Threat

- CVRD Boundary & AOI
- PSTA 2KM WUI
- Road Type**
- collector; arterial
- ferry
- highway; freeway
- lane; local; driveway; service; unclassified
- Transmission Lines
- FWA Water Bodies
- FWA Stream
- Local Fire Threat**
- Rating**
- Low
- Moderate
- High
- Extreme
- No Data (Private Land)
- No Data (Private Managed Forest Land)
- Water
- Municipalities
- BCWF WUI 1km Buffer
- Railway Track Line


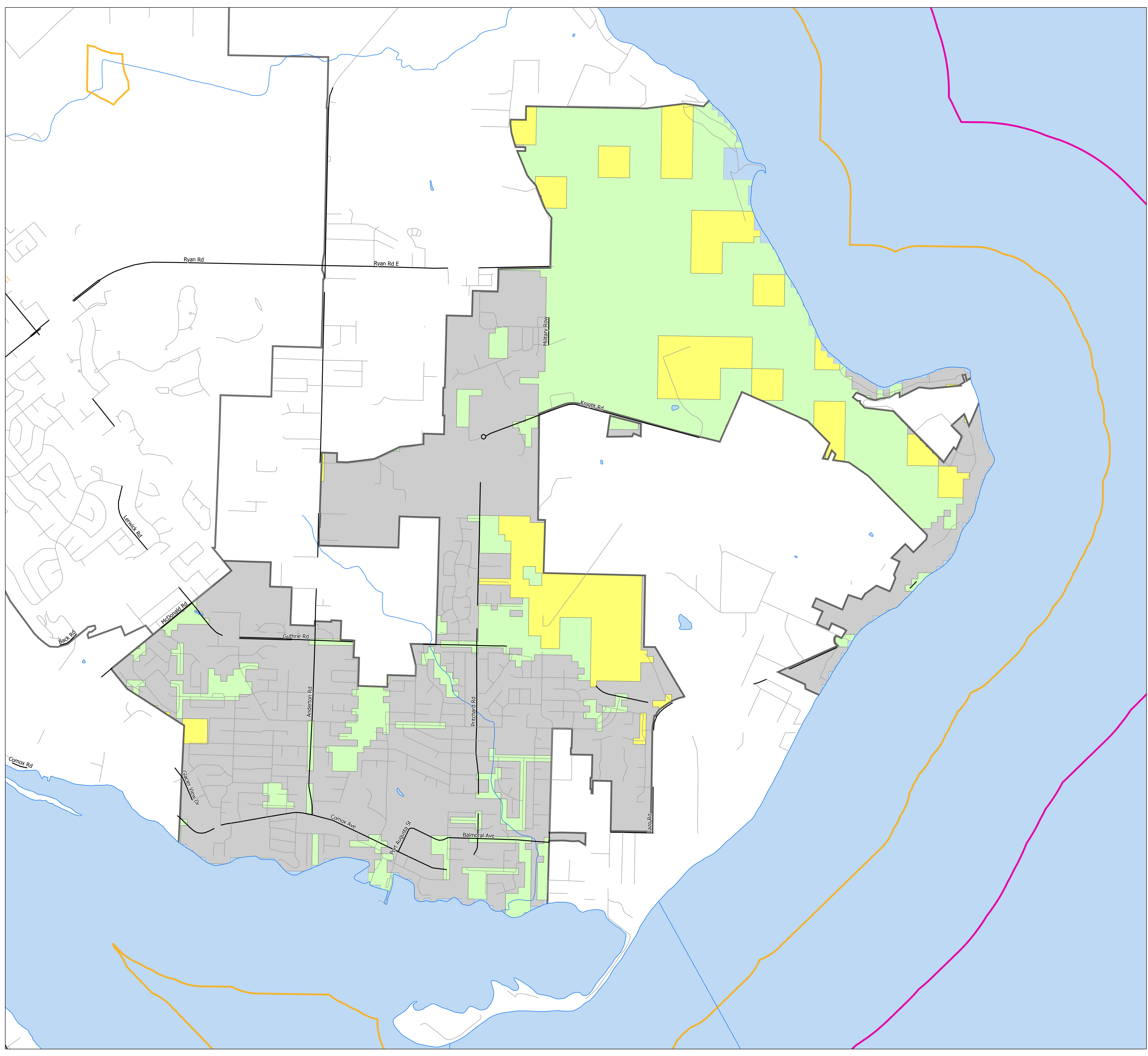
Local_Fire_Threat	AREA_HA
Moderate	195.5
Water	474.6
Low	573.5
No Data (Private Land)	901.6

N Scale: 1:16,000



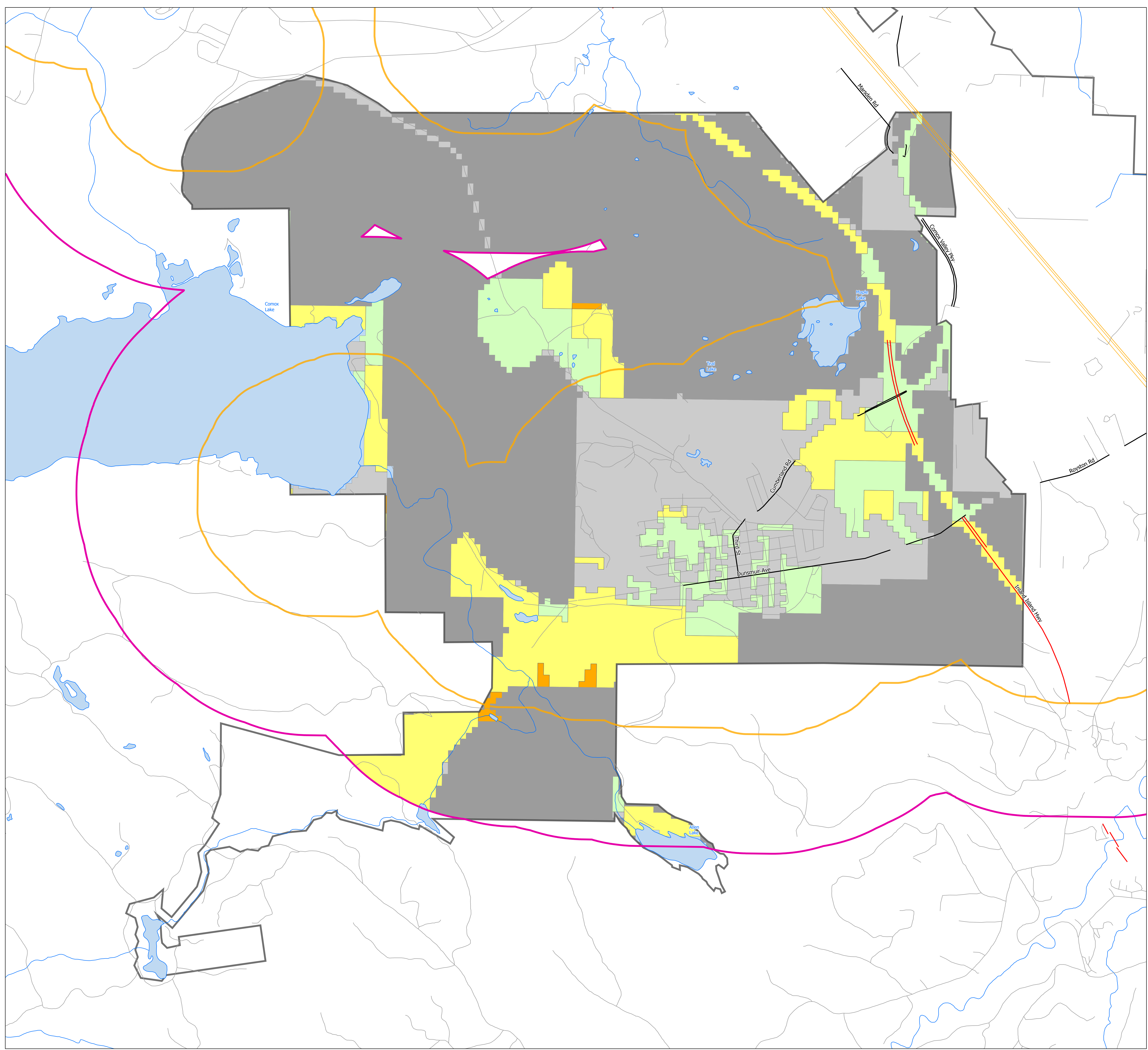
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NAD 1983 BC Environment Albers

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CVRD Regional Wildfire Resiliency Plan CRI-688 Cumberland

Map 2: Local Fire Threat



- CVRD Boundary & AOI
- PSTA 2KM WUI
- Road Type**
- collector; arterial
- ferry
- highway; freeway
- lane; local; driveway; service; unclassified
- Transmission Lines
- FWA Water Bodies
- FWA Stream
- Local Fire Threat**
- Rating**
- Low
- Moderate
- High
- Extreme
- No Data (Private Land)
- No Data (Private Managed Forest Land)
- Water
- Municipalities
- BCWF WUI 1km Buffer
- Railway Track Line

Local_Fire_Threat	AREA_HA
High	7.9
Water	109.1
Low	214.4
Moderate	319.4
No Data (Private Land)	443.5
No Data (Private Managed Forest Land)	1747.3

N Scale: 1:17,000

0 0.38 0.75 1.5 Km

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CVRD Regional Wildfire Resiliency Plan CRI-688 Overview

Map 3: Proposed Fuel Treatment Units


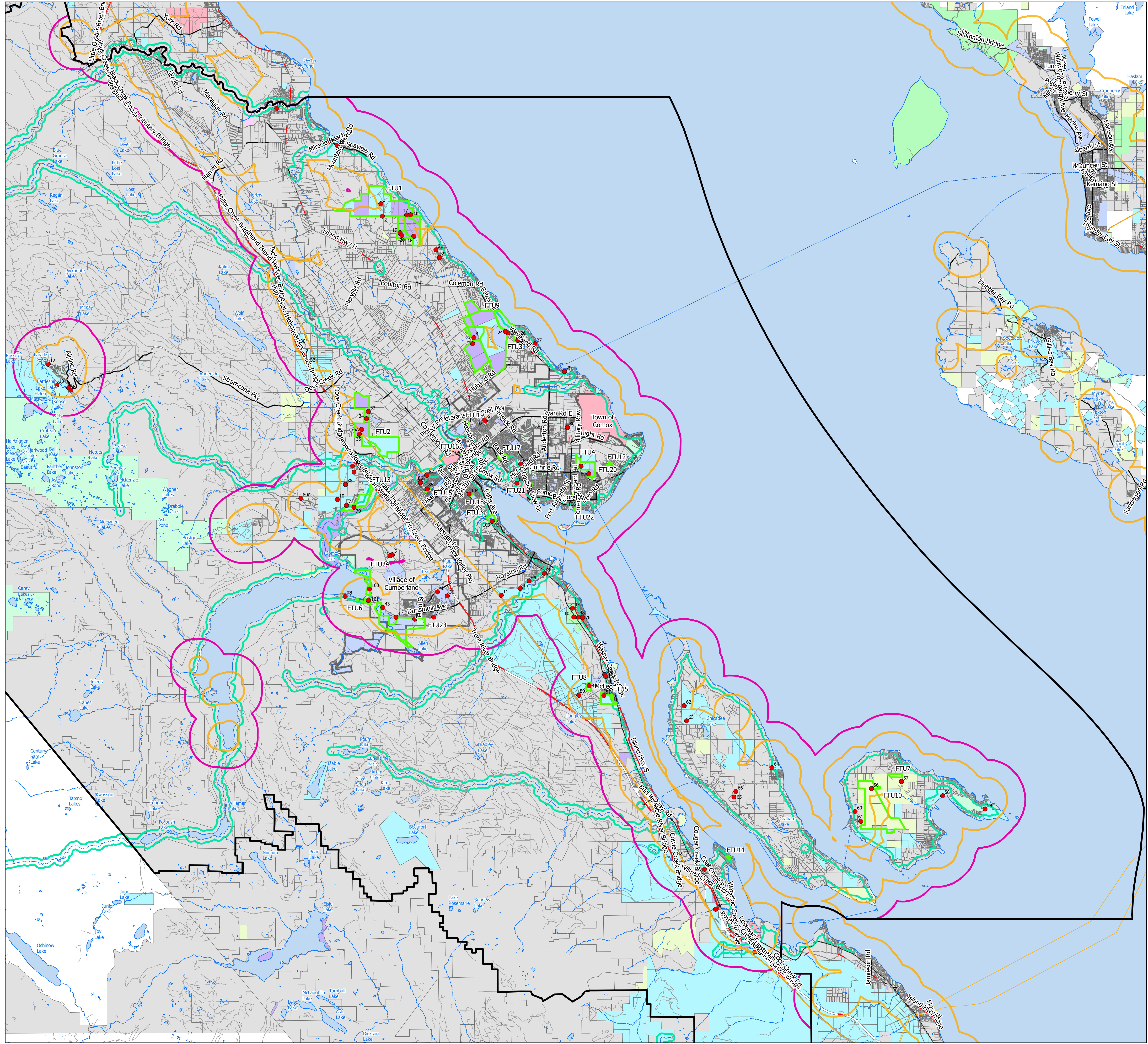
- FieldPlots
 - ▭ CVRD Boundary & AOI
 - ▭ BCWF WUI 1km Buffer
 - ▭ PSTA 2KM WUI
 - ▭ Proposed Treatments
 - ▭ K'omox First Nation AOP
- Road Type
- collector; arterial
 - ferry
 - highway; freeway
 - lane; local; driveway; service; unclassified
 - Transmission Lines
 - FWA Stream
 - Railway Track Line
 - FWA Water Bodies
 - ▭ Municipalities
- OWNER_TYPE
- ▭ Crown Agency
 - ▭ Crown Provincial
 - ▭ Federal
 - ▭ First Nations
 - ▭ Local Government
 - ▭ Mixed Ownership
 - ▭ Municipal
 - ▭ Private
 - ▭ Unclassified
 - ▭ Untitled Provincial

PROPOSED_TU_ID	Name	AREAHA	AHJ
FTU1	Williams Beach	548.4	K'omox First Nation
FTU2	Wildwood Forest Tribal Park	281.2	K'omox First Nation
FTU3	Waveland Beacon	9.3	K'omox First Nation
FTU4	Northeast Beacon	13.1	K'omox First Nation
FTU5	DL5	36.8	K'omox First Nation
FTU6	DL50	7.7	K'omox First Nation
FTU7	Hornby Island	13	K'omox First Nation
FTU8	Woodlot 0085	9.6	K'omox First Nation
FTU9	Seal Bay Nature and Forest Park	635.2	CVRD
FTU10	Mt. Geoffery Nature Park	333.3	CVRD
FTU11	Ships Peninsula Paark	2.1	CVRD
FTU12	Sandpines Park	1.4	CVRD
FTU13	Nymph Falls Nature Park	61	CVRD
FTU14	Millard Creek Park	13.7	Courtenay
FTU15	Morrison Creek Park	2.8	Courtenay
FTU16	Condensory Park	5.2	Courtenay
FTU17	Hurford Hill Nature Park	10.7	Courtenay
FTU18	Dogwood Park	2.3	Courtenay
FTU19	Vanier Nature Park	5.4	Courtenay
FTU20	North East Woods	51.2	Comox
FTU21	Condor Park	3.6	Comox
FTU22	Baybrook Creek Green Belt	12	Comox
FTU23	Cumberland Community Forest	200.9	Cumberland
FTU24	Lower Perseverance Corridor	42.7	Cumberland

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Scale: 1:110,000
0 2.5 5 10 Km

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CVRD Regional Wildfire Resiliency Plan CRI-688 Courtenay

Map 3: Proposed Fuel Treatment Units

- CVRD Boundary & AOI
 - BCWF WUI 1km Buffer
 - PSTA 2KM WUI
 - Proposed Treatments
 - K'omoks First Nation AOP
- Road Type
- collector; arterial
 - ferry
 - highway; freeway
 - lane; local; driveway; service; unclassified
 - Transmission Lines
 - FWA Stream
 - Railway Track Line
 - FWA Water Bodies
 - Municipalities
- OWNER_TYPE
- Crown Agency
 - Crown Provincial
 - Federal
 - First Nations
 - Local Government
 - Mixed Ownership
 - Municipal
 - Private
 - Unclassified
 - Untitled Provincial

PROPOSED_TU_ID	Name	AREAHA	AHJ
FTU2	Wildwood Forest Tribal Park	281.2	K'omox First Nation
FTU4	Northeast Woods	13.1	K'omox First Nation
FTU9	Seal Bay Nature and Forest Park	635.2	CVRD
FTU13	Nymph Falls Nature Park	61	CVRD
FTU14	Millard Creek Park	13.7	Courtenay
FTU15	Morrison Creek Park	2.8	Courtenay
FTU16	Condensory Park	5.2	Courtenay
FTU17	Hurford Hill Nature Park	10.7	Courtenay
FTU18	Dogwood Park	2.3	Courtenay
FTU19	Vanier Nature Park	5.4	Courtenay
FTU20	North East Woods	51.2	Comox
FTU21	Condor Park	3.6	Comox
FTU22	Baybrook Creek Green Belt	12	Comox


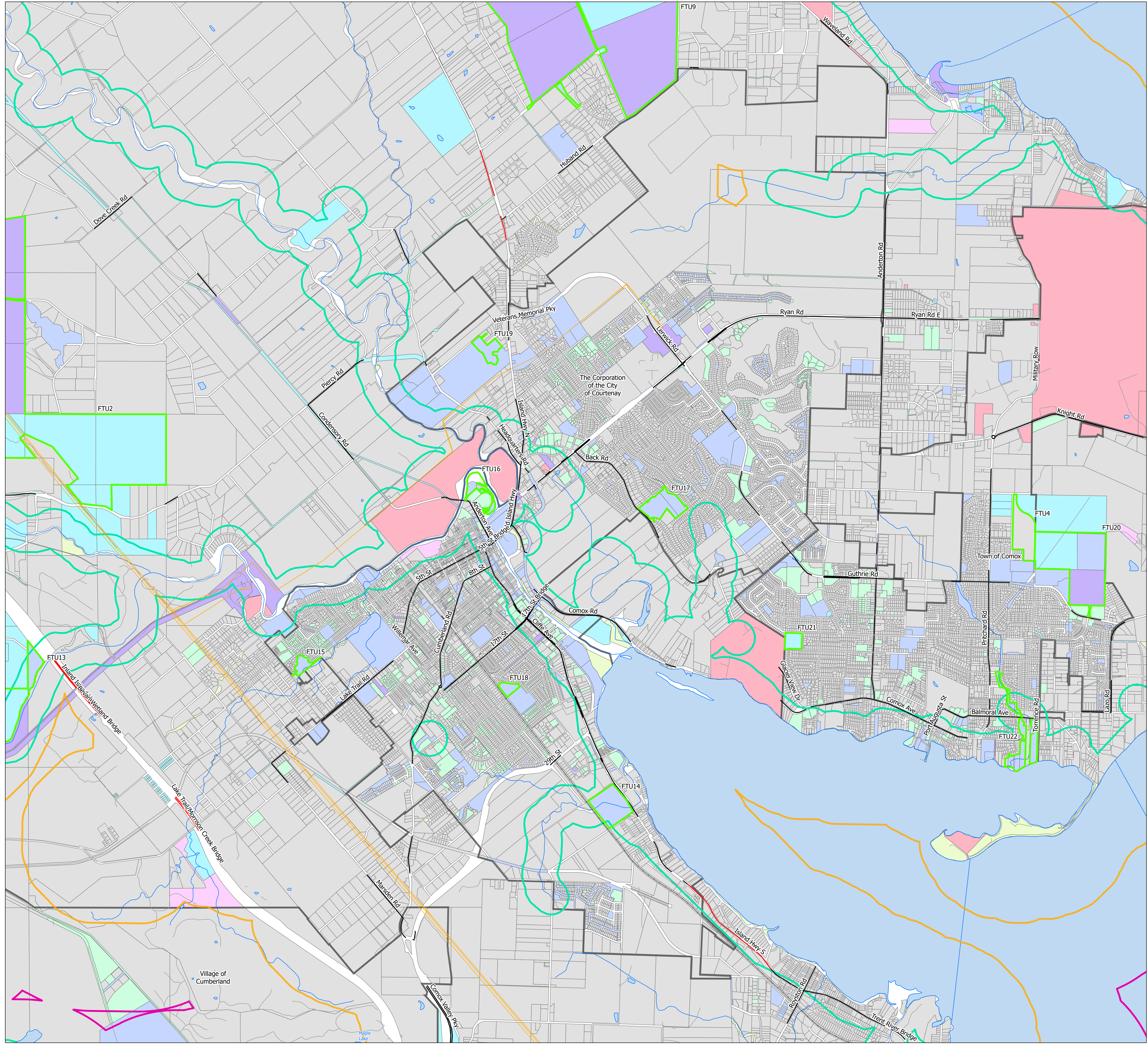
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CVRD Regional Wildfire Resiliency Plan CRI-688 Comox

Map 3: Proposed Fuel Treatment Units

- CVRD Boundary & AOI
 - BCWF WUI 1km Buffer
 - PSTA 2KM WUI
 - Proposed Treatments
 - K'ómoks First Nation AOP
- Road Type
- collector; arterial
 - ferry
 - highway; freeway
 - lane; local; driveway; service; unclassified
 - Transmission Lines
 - FWA Stream
 - Railway Track Line
 - FWA Water Bodies
 - Municipalities
- OWNER_TYPE
- Crown Agency
 - Crown Provincial
 - Federal
 - First Nations
 - Local Government
 - Mixed Ownership
 - Municipal
 - Private
 - Unclassified
 - Untitled Provincial

PROPOSED_TU_ID	Name	AREAHA	AHJ
FTU4	Northeast Woods	13.1	K'omox First Nation
FTU12	Sandpines Park	1.4	CVRD
FTU17	Hurford Hill Nature Park	10.7	Courtenay
FTU20	North East Woods	51.2	Comox
FTU21	Condor Park	3.6	Comox
FTU22	Baybrook Creek Green Belt	12	Comox


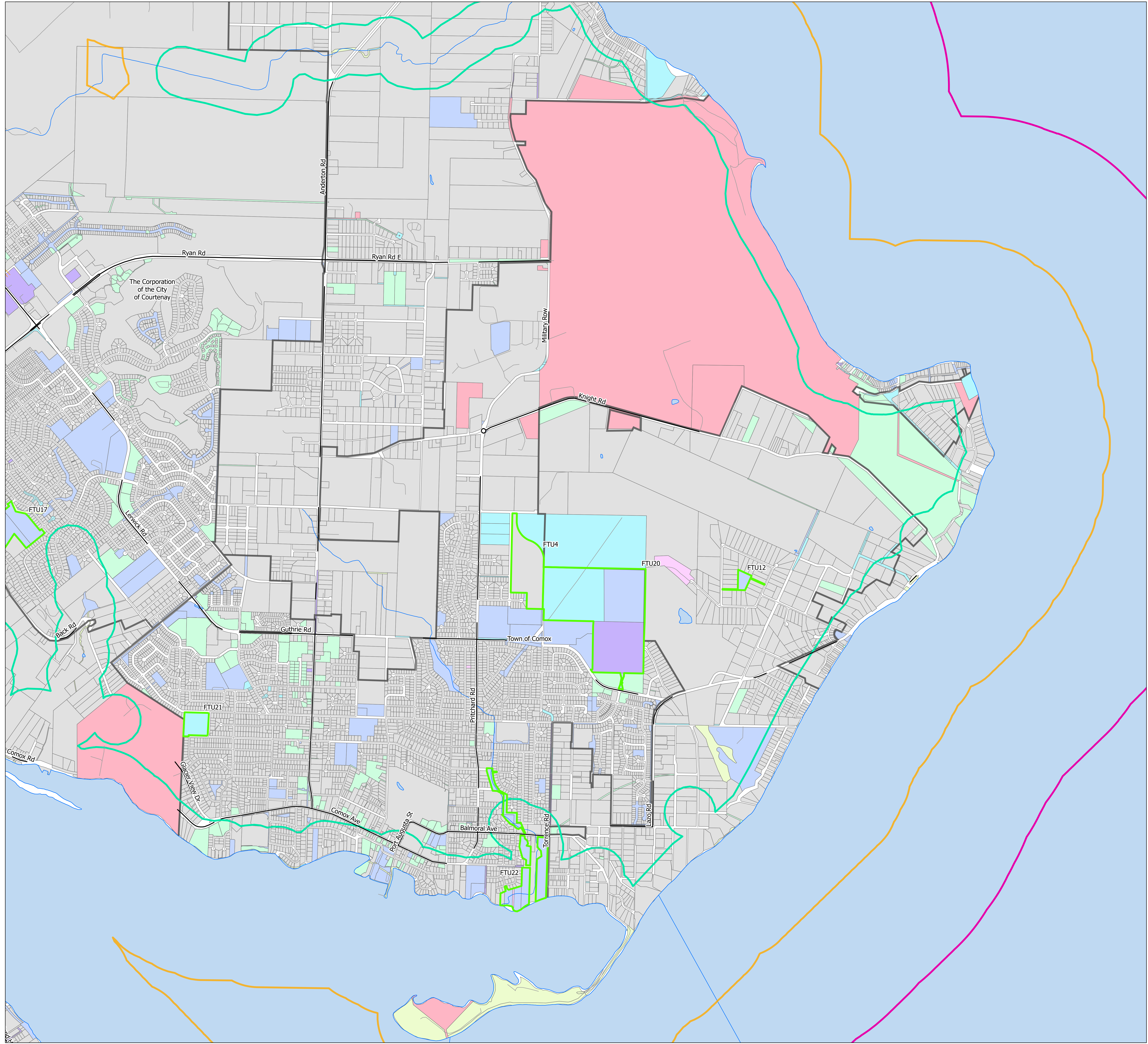
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CVRD Regional Wildfire Resiliency Plan CRI-688 Cumberland

Map 3: Proposed Fuel Treatment Units

- CVRD Boundary & AOI
 - BCWF WUI 1km Buffer
 - PSTA 2KM WUI
 - Proposed Treatments
 - K'ómoks First Nation AOP
- Road Type
- collector; arterial
 - ferry
 - highway; freeway
 - lane; local; driveway; service; unclassified
 - Transmission Lines
 - FWA Stream
 - Railway Track Line
 - FWA Water Bodies
 - Municipalities
- OWNER_TYPE
- Crown Agency
 - Crown Provincial
 - Federal
 - First Nations
 - Local Government
 - Mixed Ownership
 - Municipal
 - Private
 - Unclassified
 - Untitled Provincial

PROPOSED_TU_ID	Name	AREAHA	AHJ
FTU6	DL50	7.7	K'omox First Nation
FTU23	Cumberland Community Forest	200.9	Cumberland
FTU24	Lower Perseverance Corridor	42.7	Cumberland

N Scale: 1:17,000

0 0.38 0.75 1.5 Km

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