

Community Resiliency Investment Program

2021 FireSmart Community Funding & Supports

Program & Application Guide

1. Introduction

The [Community Resiliency Investment](#) (CRI) program was announced by the provincial government in 2018 and is intended to reduce the risk of wildfires and mitigate their impacts on BC communities. CRI includes two streams:

Stream 1: FireSmart Community Funding & Supports, administered by the Union of BC Municipalities

Stream 2: Crown Land Wildfire Risk Reduction, administered by the Ministry of Forests, Lands, Natural Resource Operations & Rural Development. Highlights of this program stream include:

- Fuel management planning and treatment activities focusing on provincial Crown land located around communities
- Prescribed fire (including planning and operational treatments) and the development of a comprehensive provincial prescribed fire program
- Risk reduction activities targeting provincially identified critical infrastructure, beginning with critical response infrastructure, such as government-owned radio repeaters, weather stations and airtanker bases

FireSmart Community Funding & Supports

The FireSmart Community Funding & Supports program provides funding to local governments and First Nations in BC to increase community resiliency by undertaking community-based FireSmart®¹ planning and activities that reduce the community's risk from wildfire. To date, 175 First Nations and local governments have received funding.

The First Nations' Emergency Services Society (FNESS), the Forest Enhancement Society of BC (FESBC) and the Union of BC Municipalities (UBCM) are working with the Ministry of Forests, Lands, Natural Resource Operations & Rural Development (FLNRORD) to deliver the FireSmart Community Funding & Supports program.

The program is structured to fund FireSmart activities in eligible communities throughout BC. Base funding is scaled to offer eligible applicants with lower risk of wildfire, generally demonstrated by WUI Risk Class 4 and 5, to apply for up to \$50,000, and applicants with a demonstrated higher risk of wildfire, generally demonstrated by WUI Risk Class 1 to 3, to apply for up to \$150,000 per year. Information on determining risk is provided in Appendix 1.

There are two opportunities to apply for additional funding:

1. **New in 2021** - Applications from regional districts may exceed the base funding maximum in order to fund FireSmart activities only in one or more electoral areas. Refer to Section 3 for more information.

¹ The FireSmart brand is a registered trademark of Partners in Protection



2. Applications that include fuel management on Provincial Crown land within municipal boundaries, regional district parks or First Nations land and that include contiguous, logical treatment units that extend onto the Crown land base may exceed the base funding maximum for fuel management activities on Provincial Crown Land only provided that:
 - a. Fuel management activities are adjacent to community structures, and
 - b. Fuel management activities extend no further than one-kilometre from the structure density class greater than 6 (see Appendix 1)

Fuel management located exclusively on Provincial Crown land, outside of municipal boundaries, regional district parks or First Nations land, is administered through the Crown Land Wildfire Risk Reduction stream. Applicants are required to contact the BC Wildfire Service for further discussion regarding identified fuel treatment units located on Provincial Crown land.

FireSmart in BC

The general goal of FireSmart is to encourage communities and citizens to adopt and conduct FireSmart practices to mitigate the negative impacts of wildfire to assets on public and private property:

- [Overview of the seven FireSmart disciplines](#)
- [BC FireSmart Information Sheet](#) has been developed to provide applicants with an overview of available resources, training and materials approved for funding

As identified in the [BC Flood and Wildfire Review](#), there is a critical need to “strengthen public understanding of the risks and personal responsibilities associated with living in a fire-dependent ecosystem.”² [FireSmart BC](#) and the Community Resiliency Investment program both follow the seven disciplines of FireSmart as a holistic approach to reducing wildfire risk to communities.

Further, findings from the [2016 Horse River wildfire in Fort McMurray](#) indicate that FireSmart principles were one of the main reasons why individual homes survived, regardless of the broader wildfire threat surrounding them.³ This was true in both the urban and rural areas.

2. Eligible Applicants

All local governments (municipalities and regional districts) and First Nations (bands, Treaty First Nations, and Indigenous National Governments with authority for lands and resources) in BC are eligible to apply.

Eligible applicants can submit one application per intake, including regional applications or participation as a partnering applicant in a regional application.

3. Eligible Projects

To be eligible for funding, applications must demonstrate that proposed activities will increase community resiliency by undertaking community-based FireSmart planning and activities that reduce the community’s risk from wildfire.

² *Addressing the New Normal: 21st Century Disaster Management in British Columbia*. p.90

³ Al Westhaver, *Why some homes survived: Learning from the Fort McMurray wildfire disaster* (Toronto: Institute for Catastrophic Loss Reduction, 2016)

Applicants must choose to apply as a single applicant (i.e. an individual local government or First Nation as identified in Section 2) or as part of a regional project.

Regional Projects

There are two opportunities to apply for regional projects within a single application. In all cases, it is expected that regional projects will demonstrate cost-efficiencies in the total grant request.

Regional Projects for Multiple Eligible Applicants

Funding requests from two or more eligible applicants for regional projects may be submitted as a single application for eligible, collaborative projects. In this case, the maximum base funding would be calculated by the number of eligible applicants included in the application and the associated risk class of each. Applications for regional projects for multiple eligible applicants can include FireSmart (Worksheet 1) and fuel management (Worksheet 2) activities.

The primary applicant submitting the application for a regional project is required to submit a resolution as outlined in Section 8 of this guide. Each partnering community is required to submit a resolution that clearly states their approval for the primary applicant to apply for, receive and manage the grant funding on their behalf.

New in 2021 - Regional Projects for Regional District Applications Including Multiple Electoral Areas

Regional Districts may submit a single application for eligible, collaborative projects that include multiple electoral areas. In this case, the maximum base funding would be the full eligible grant amount for the regional district (i.e. \$50,000 or \$150,000 depending on risk of wildfire) plus up to \$50,000 for FireSmart activities for each electoral area that is included in the application. In this case, the regional district would be required to submit a complete application package as well as a separate Worksheet 1 for each electoral area.

4. Requirements for Funding

To qualify for funding, applicants must demonstrate their level of engagement with a BCWS Wildfire Prevention Officer, FNESS Fuel Management Liaison/Specialist, and, if applicable, the FLNRORD district, region, or relevant Land Manager, to ensure project alignment with Land Manager priorities.

Applicants will be required to document this engagement in the application process. Planning and discussion must occur at a minimum of 30 days prior to submission of an application to allow for meaningful dialogue regarding the proposed FireSmart and fuel management activities and opportunities for integration of planning and implementing fuel management activities on provincial Crown lands.

For more information on the planning process and identified projects please see the [Crown Land Wildfire Risk Reduction webpage](#).

In addition, to qualify for funding, projects must:

- Be located within the applicant's administrative boundary (see exception for fuel management activities below)
- Include new activities or represent a new phase of an existing project (retroactive funding is not available)
- Be capable of completion by the applicant within one year of the date of grant approval. Projects that include fuel treatments, including prescribed fire, may be approved for up to two years.

- Be supported by a current plan, acceptable to the BCWS Wildfire Prevention Officer or the FNESS Fuel Management Liaison/Specialist, that includes assessment and identification of FireSmart and/or fuel management priorities (i.e. Community Wildfire Protection Plan, Community Wildfire Resiliency Plan, or Crown Land WRR Tactical or Fuel Management Plan, etc.). Note: applicants that do not have a current and acceptable plan may apply to develop or update a plan.
- Be completed by a qualified professional that is accredited by their professional association

Further, fuel management activities must:

- Be located within municipal boundaries, regional district parks or First Nations land and, if applicable, approved to extend onto the Crown Land base
- For activities that fall under the practice of forestry, be developed and, where applicable, signed/sealed by a forest professional that is accredited by the Association of BC Forest Professionals and operating within their [scope of practice](#)
- Ensure compliance with applicable legislation and regulations: Federal (e.g. Fisheries Act, Species at Risk Act); Provincial (e.g. Forest and Range Practices Act, Open Burning Smoke Control Act, and Wildfire Act); and local authority (e.g. burning bylaws or other bylaws or plans)
- Where applicable, be eligible for required approvals from the Land Manager (e.g. BC Parks Area Manager, Natural Resource District Manager etc.), authorizations and/or permits
- Where applicable, for any required professional assessments, be developed and signed/sealed by a qualified professional (e.g. terrain stability assessments must be signed/sealed by a professional engineer)

5. Definitions

Area of Interest (AOI): The AOI for a CWRP includes all the area that lies within the municipal boundary, regional district boundary, or boundary of First Nations land. For regional districts this could be the boundary of an electoral area that encompasses multiple communities. Refer to the CWRP template and guidance document for more information.

First Nations land: First Nation reserve land, land owned by a Treaty First Nation (as defined by the *Interpretation Act*) within treaty settlement lands, or land under the authority of an Indigenous National Government

First Nations owned buildings: Buildings owned by a Treaty First Nation (as defined by the *Interpretation Act*) within treaty settlement lands or buildings owned by a First Nation band

Private land: Fee-simple land that is not owned by a level of government

Publicly owned buildings: Buildings owned by a local government or public institution (such as health authority or school district)

Publicly owned land: Provincial Crown land, land owned by a local government or land owned by a public institution (such as a health authority or school district). For the purpose of the FireSmart Community Funding & Supports program, land owned by colleges and universities is not considered publicly owned land.

Publicly, provincially and First Nations owned critical infrastructure: Assets owned by the Provincial government, local government, public institution (such as health authority or school district), First Nation or Treaty First Nation that are either:

- Identified in a Local Authority Emergency Plan [Hazard, Risk & Vulnerability Analysis](#) and/or [Critical Infrastructure assessment](#) and/or
- Essential to the health, safety, security or economic wellbeing of the community and the effective functioning of government (such as fire halls, emergency operations centres, radio repeaters, etc.)

Vegetation management: The general goal of vegetation management is to reduce the potential wildfire intensity and ember exposure to people, infrastructure, structures and other values through manipulation of both the natural and cultivated vegetation that is within or adjacent to a community.

Vegetation management can be accomplished through two different activities:

1. **Residential scale FireSmart landscaping:** The removal, reduction, or conversion of flammable plants (such as landscaping for residential properties, parks and open spaces) in order to create more fire-resistant areas in FireSmart Non-combustible Zone and Priority Zones 1, 2 and 3. Refer to the [FireSmart Guide to Landscaping](#).
2. **Fuel management treatments:** The manipulation or reduction of living or dead forest and grassland fuels to reduce the rate of spread and head fire intensity, and enhance likelihood of successful suppression, generally outside of FireSmart Non-combustible Zone and Priority Zones 1, 2 and 3. See Appendix 3 for more information.

Wildfire risk: Commonly defined as:

1. Likelihood of a fire occurring
2. Associated fire behaviour
3. Impacts of the fire (consequence)

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

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

Wildland Urban Interface (WUI): As defined in the FireSmart manual, the wildland urban interface (WUI) is any area where combustible forest fuel is found adjacent to homes, farm structures or other outbuildings. This may occur at the interface, where development and forest fuel (vegetation) meet at a well-defined boundary, or in the intermix, where development and forest fuel intermingle with no clearly defined boundary. Historically in BC, the WUI was created by buffering the structure density class greater than 6 by a 2-kilometre buffer to represent a reasonable distance that embers can travel from a wildfire to ignite a structure.

- **FCFS Eligible WUI one kilometre:** For the purpose of the FireSmart Community Funding & Supports program (FCFS) the eligible WUI is defined maximum of one kilometer from the structure density class greater than 6

WUI Risk Class (RC): The level of risk (“risk class”) reflects the analysis of weighted PSTA threat components within the individual WUI Risk Class polygons. Five risk class ratings were applied to the WUI polygons, with “1” being a higher relative risk and “5” being the lowest relative risk. The application of relative risk does not imply “no risk”, since the goal is to identify areas where there is higher risk. See Appendix 1 for more information.

6. Eligible & Ineligible Costs & Activities

Eligible costs are direct costs that are approved by the Evaluation Committee, properly and reasonably incurred, and paid by the applicant to carry out eligible activities. Eligible costs can only be incurred from the date of application submission until the final report is submitted.

Table 1 identifies the activities that are eligible for funding. Eligible activities must be cost-effective and primarily located within the applicant’s administrative boundary. Please note that all FireSmart Home Ignition Zone Assessments must be conducted by a qualified Local FireSmart Representative or Wildfire Mitigation Specialist that has received training from FireSmart Canada.

Table 1: Activities Eligible for Funding
<p>1. EDUCATION</p> <p><i>Public education and outreach play a critical role in helping a community prepare for a wildfire and participate in wildfire risk reduction and resiliency activities by promoting a sense of empowerment and shared responsibility.</i></p> <p>New in 2021, all applications are required to include an education component in this section. This may include general FireSmart education, or be related to a proposed activity in categories 2 through 9 below.</p> <p>Also new in 2021, applicants are able to order FireSmart materials free of charge as part of their application (see Worksheet 1). Additional requests for educational events, such as event supplies, will be considered only when appropriate rationale is provided.</p>
<ul style="list-style-type: none"> • New in 2021 - Organize, implement and/or update public meetings, signage, social media, applicant websites and/or newsletters, community site visits, and community education related to a proposed activity in categories 2 through 9 below • Promote and distribute FireSmart educational materials and resources, such as FireSmart 101, FireSmart Begins at Home app, social media and/or FireSmart BC materials that are available free of charge • Develop and/or promote education for the reduction of local human-caused fires • Encourage community participation in Wildfire Community Preparedness Day • Organize and/or host a Farm and Ranch Wildfire Preparedness workshop, Neighbourhood Champion workshop, community FireSmart day, FireSmart events and workshops, and/or wildfire season open houses • Support neighbourhoods to apply for FireSmart Canada Neighbourhood Recognition Program

2. COMMUNITY PLANNING

Community planning is a very effective tool for reducing wildfire risk for lands and buildings within the administrative boundaries of a local government or First Nation communities.

Please note that FireSmart Assessments for neighbourhoods and/or residences should be included in Category 8.

- **New in 2021** - Develop a [Community Wildfire Resiliency Plan](#) (CWRP) in accordance with the 2021 template and guidance document
- Amend existing plans that are less than 5 years old to include:
 - recently acquired land or areas of new development, etc.
 - ground-truthing for new treatment units
 - significant changes to forest stand composition and/or forest health changes or impacts
 - integrating other plans or information into existing CWPP/CWRP
- Develop FireSmart policies and practices for the design and maintenance of First Nations land and publicly owned land, such as parks and open spaces
- Develop FireSmart policies and practices for the design and maintenance of First Nations owned buildings and publicly owned buildings
- Conduct [FireSmart Assessments](#) for First Nation and/or publicly owned buildings in order to support future FireSmart projects for critical infrastructure (see Category 7)

3. DEVELOPMENT CONSIDERATIONS

Community land use and development in wildfire-prone areas affects the susceptibility of the community at different scales and in terms of where and how a community is, or will be, developed.

- Amend Official Community Plans, Comprehensive Community Plans and/or land use, engineering and public works bylaws to incorporate FireSmart principles
- Revise landscaping requirements in zoning and development permit documents to require fire resistant landscaping or include other FireSmart considerations
- Establish Development Permit Areas for Wildfire Hazard in order to establish requirements for the exterior design and finish of buildings⁴
- Include wildfire prevention and suppression considerations in the design of subdivisions (e.g. road widths, turning radius for emergency vehicles, and access and egress points)
- Amend referral processes for new developments to ensure multiple departments, including the fire department and/or emergency management personnel, are included

⁴ Local governments should refer to [Changes for Local Governments Under Section 5 of the Building Act: Appendix to Section B1 of the Building Act Guide \(Revised February 2017\)](#) for information on the use of development permits for wildfire hazard.

4. INTERAGENCY CO-OPERATION

It takes the collaborative efforts of multiple stakeholders working together to achieve a wildfire resilient community. This may include local fire departments, First Nation and/or local government staff and elected officials, provincial government such as Emergency Management BC and BCWS, industry representatives and other community stakeholders.

- Develop, coordinate and/or participate in a Community FireSmart Resiliency Committee. The purpose of the committee is to bring together local communities and provincial agency staff (EMBC, FLNRORD) with stakeholders to coordinate, plan and share information on FireSmart activities at a regional level.
- Participate in multi-agency fire and/or fuel management planning tables to support the integration of fuel management planning across jurisdictional boundaries in the absence of a CFWR Committee
- **New in 2021** - Provide Indigenous cultural safety and humility training to emergency management personnel in order to more effectively partner with, and provide assistance to, Indigenous communities for both wildfire prevention and suppression
- **New in 2021** - Attend 2021 FireSmart BC Conference, to be hosted by the BC FireSmart Committee. Note: this is limited to two staff per applicant for costs related to travel, accommodation and per diems only (wages are not eligible), with a maximum of no more than \$1,000 per attendee.

5. EMERGENCY PLANNING

Community preparations for a wildfire emergency require a multi-pronged approach in order for a community to respond effectively to the threat of wildfires as a whole.

- Develop and/or participate in cross-jurisdictional meetings and tabletop exercises specifically focused on wildfire preparedness and suppression, including seasonal wildfire readiness meetings
- Assess structural protection capacity as required for wildfire response (i.e. assessment of community water delivery ability, structure protection inventory)
- Use and/or promote [EMBC Wildfire Preparedness Guide](#) for community emergency preparedness events focused on wildfire

6. FIRESMART TRAINING & CROSS TRAINING

FireSmart requires many different professions who may not typically work in a wildfire environment to understand other disciplines and wildfire management planning objectives. Cross-training firefighters, public works staff, utility workers, local government and First Nation administration staff, planning and logistics staff, and other key positions, supports local FireSmart activities, including a safe and effective wildfire response.

- Provide or attend training for Local FireSmart Representatives
- Support local government or First Nation staff that have completed Local FireSmart Representative training to qualify as facilitators, including travel costs for up to 3 workshops
- Cross-train fire department members to include structural fire and interface wildfire training. The following are the only courses eligible for funding:
 - SPP-WFF1 Wildland Firefighter Level 1
 - S-100 Basic fire suppression and safety

- S-185 Fire entrapment avoidance and safety
- ICS-100 (volunteer fire departments only)
- Cross-train emergency management personnel:
 - ICS-100
 - Professional development to increase capacity for FireSmart activities. Note: this is limited to two staff per applicant for costs related to travel, accommodation and per diems only (wages are not eligible), with a maximum of no more than \$1,000 per attendee.

7. FIRESMART PROJECTS FOR CRITICAL INFRASTRUCTURE

Implementing recommended FireSmart improvements to local critical infrastructure demonstrates wildfire prevention principles and best practices to community members and other stakeholders.

To be eligible for funding, all FireSmart Projects must have a completed FireSmart Assessment at the time of application submission. Refer to Category 2 for information on applying for assessments.

Eligible projects must be First Nations owned buildings or publicly owned buildings that are currently designated as critical to support effective emergency response to a wildfire event. This includes structures designated as Emergency Operations Centres or Emergency Support Services facilities (i.e. reception centres, group lodging locations for evacuees), water pump stations, communications towers, and electrical generating stations, but does not include all critical infrastructure identified through the Local Authority Emergency Plan.

The maximum funding request for this category is \$25,000 per application.

- Replacing building materials (i.e. siding or roofing) with fire-resistant materials
- Undertaking vegetation management within the FireSmart Non-combustible Zone and Priority Zones 1, 2 and 3 to remove, reduce, or convert flammable plants in order to create more fire-resistant areas outlined in the [FireSmart Guide to Landscaping](#)

8. FIRESMART ACTIVITIES FOR RESIDENTIAL AREAS

Residential areas are a critical component of every community. First Nations and local governments have a key role to play in supporting residents and property owners to undertake FireSmart activities that demonstrate wildfire prevention principles and best practices.

To be eligible for funding, all FireSmart activities for residential areas must be located in the FireSmart Home Ignition Zone which includes the home and surrounding yard area - FireSmart Non-Combustible Zone and Priority Zones 1, 2 and 3.

- Develop plans for residential areas (only with residential property and/or home owners' consent):
 - Conduct [Home Ignition Zone Assessments](#) for individual residential properties or homes
 - Develop FireSmart Neighbourhood Plans for specific areas
 - Undertake [Neighbourhood Wildfire Risk Assessments](#) for neighbourhoods pursuing FireSmart Canada Neighbourhood Recognition
- Offer local rebate programs to residential property or home owners that complete eligible FireSmart activities. Refer to Appendix 2 for requirements for funding this activity.
- Provide off-site vegetative debris disposal for residential property or home owners who have undertaken their own vegetation management, including:

- Provide a dumpster, chipper or other collection method
- Waive tipping fees
- Provide curbside debris pick-up

9. FUEL MANAGEMENT

Under the FireSmart Community Funding & Supports program, fuel management activities include the development of fuel management prescriptions and burns plans, as well as operational fuel treatments, including prescribed burns.

Applicants are advised to only propose fuel management activities that can be completed within two years.

To be eligible for funding, all fuel management activities must be in alignment with the requirements for funding fuel management activities identified in Appendix 3 and should generally be outside of FireSmart Non-combustible Zone and Priority Zones 1, 2 and 3.

- Undertake fuel management on publicly owned land or First Nations land. This is limited to:
 - Fuel management prescriptions consistent with [BC Wildfire Service 2020 Fuel Management Prescription Guidance Document](#)
 - New fuel management treatments or maintenance activities, including activities on grasslands
 - Prescribed burns are eligible when the primary objective is fuel management for community wildfire risk reduction. They must follow the provincial requirements for planning and implementing a burn and must utilize the BCWS Prescribed Fire [Burn Plan Template](#). (Note: per Appendix 1a of the template – Burn Plan Signature Sheet, the BCWS Fire Centre Manager or designate is required to approve the burn plan.)

Additional Eligible Costs & Activities

In addition to the activities identified in Table 1, the following expenditures are also eligible provided they relate directly to eligible activities:

- Incremental applicant staff and administration costs (i.e. creating a new position or adding new responsibilities to an existing position). This could include employment and/or training to increase local capacity through term contracts for:
 - FireSmart Coordinator
 - CWRP and/or CFRC Coordinator
 - Qualified Local FireSmart Representative
 - Summer/co-op students
- Consultant costs
- Public information costs

Ineligible Costs & Activities

Any activity that is not outlined in Table 1 or is not directly connected to activities approved in the application by the Evaluation Committee is not eligible for grant funding. This includes:

- Development of funding application package
- Purchase, construction or siting of Fire Danger rating signs
- Purchase of tools (e.g. hand saws, loppers) or structural protection equipment (e.g. hoses, sprinklers)

- Purchase of door prizes, give-away items and/or gifts for community events
- Purchase of emergency supplies (e.g. first aid kits) for community members or households
- Wildfire threat assessments and fuel treatment unit identification on private land (outside of GIS and/or FireSmart Home Ignition Zone Assessment, with the land owners consent) or outside of the eligible WUI
- For fuel management activities only:
 - Purchase of machinery, equipment and/or livestock for grazing
 - Work undertaken by FLNRORD, including prescribed fire staff support
 - Any third-party requirements to address hazard abatement under the *Wildfire Act*
 - Hazard abatement activities related to existing or decommissioned saw mills (i.e. removal of slabs and/or sawdust)

7. Grant Maximum

New in 2021 - Eligible applicants with a lower risk of wildfire, generally demonstrated by WUI Risk Class 4 and 5, can apply for 100% of the cost of eligible activities to a maximum of \$50,000.

Eligible applicants with a demonstrated higher risk of wildfire, generally demonstrated by WUI Risk Class 1, 2 and 3, can apply for 100% of the cost of eligible activities to a maximum of \$150,000. Information on determining risk is provided in Appendix 1.

In addition, as outlined in Sections 1 and 3 above, there are two opportunities to apply for additional funding: applications that include fuel management on Provincial Crown land, located within municipal boundaries, regional district parks or First Nations land and including contiguous, logical treatment units that extend onto the Crown land base, and applications from regional districts that include FireSmart activities only in one or more electoral areas.

In order to ensure transparency and accountability in the expenditure of public funds, all other financial contributions for eligible portions of the project must be declared and, depending on the total value, may decrease the value of the grant. This includes any other grant funding and any revenue (e.g. sale of forest products) that is generated from activities that are funded by the FireSmart Community Funding & Supports program.

8. Application Requirements & Process

Application Deadline

The application deadline is October 9, 2020. Applicants will be advised of the status of their applications by February 5, 2021.

Required Application Contents

- Completed Application Form with all required attachments
- Completed Worksheet 1: Proposed Activities & Cost Estimates and all required attachments
- For fuel management activities only: Completed Worksheet 2: Proposed Fuel Management Activities and all required attachments
- Council, Board or Band Council resolution, indicating support for the current proposed activities and willingness to provide overall grant management

- For regional projects with multiple applicants only: Council, Board or Band Council resolution from each partnering community that clearly states approval for the applicant to apply for, receive and manage the grant funding on their behalf

Submission of Applications

Applications should be submitted as Word or PDF files. If you choose to submit your application by e-mail, hard copies do not need to follow. Total file size for email attachments cannot exceed 20 MB.

All applications should be submitted to:

Local Government Program Services, Union of BC Municipalities

E-mail: cri-swpi@ubcm.ca

Mail: 525 Government Street, Victoria, BC, V8V 0A8

Review of Applications

FNESS, FLNRORD, FESBC and UBCM will perform a preliminary review of all applications to ensure the required application contents have been submitted and to ensure that eligibility criteria have been met.

Complete, eligible applications will then be reviewed by the local BCWS Wildfire Prevention Officer or FNESS Fuel Management Liaison/Specialist.

Following this, an Evaluation Committee, including FNESS, FESBC and FLNRORD, will assess and score all eligible applications. Higher application review scores will be given to projects that:

- Clearly increase community resiliency by undertaking community-based FireSmart planning and activities that reduce the community's risk from wildfire
- Demonstrate evidence of local wildfire risk (within the past five years) and rationale for proposed activities. This can include:
 - Wildfire risk class of 1, 2 or 3 for the general area of interest. Refer to Appendix 1 for the risk framework and maps.
 - Current local threat based assessments that show wildfire threat in proximity to values at risk within and around the community that have been supported by the BCWS Wildfire Prevention Officer and/or FNESS Fuel Management Liaison/Specialist
 - Demonstrated history of recent repeated and/or significant interface wildfires and evacuations
- Are outcome-based and include performance measures
- Include collaboration with one or more partners (e.g. community or resident organization, First Nation or Indigenous organization, other local governments, industry, or other levels of government)
- Demonstrate cost-effectiveness and be in general alignment with established CRI FireSmart, planning and fuel management cost benchmarks
- In cases where the total project cost exceeds the grant request, include in-kind or cash contributions to the project from the eligible applicant, community partners or other grant funding

Point values and weighting have been established within each of these scoring criteria. Only those applications that meet a minimum threshold point value will be considered for funding.

Following scoring by the Evaluation Committee, the [BC FireSmart Committee](#) will review a summary of all applications in order to prioritize funding. Funding decisions will be made by UBCM.

9. Grant Management & Applicant Responsibilities

Grants are awarded to eligible applicants only and, as such, the applicant is responsible for completion of the project as approved and for meeting reporting requirements.

Applicants are also responsible for proper fiscal management, including maintaining acceptable accounting records for the project. UBCM reserves the right to audit these records.

Notice of Funding Decision & Payments

All applicants will receive written notice of funding decisions. Approved applicants will receive an Approval Agreement, which will include the terms and conditions of any grant that is awarded, and that is required to be signed and returned to UBCM. Grants are paid at the completion of the project and only when the final report requirements have been met.

Please note that in cases where revisions are required to an application, or an application has been approved in principle only, the applicant has 30 days from the date of the written notice of the status of the application to complete the application requirements. Applications that are not completed within 30 days may be closed.

Post-Grant Approval Meetings

As a condition of grant funding, all approved applicants are required to meet with the BCWS Wildfire Prevention Officer or FNESS Fuel Management Liaison/Specialist, or designate, to discuss the approved project prior to commencing work.

Progress Payments

Grants under the FireSmart Community Funding & Supports program are paid at the completion of the project and only when the final report requirements have been met. To request a progress payment, approved applicants are required to submit:

- Description of activities completed to date
- Description of funds expended to date
- Written rationale for receiving a progress payment

Changes to Approved Projects

Approved grants are specific to the project as identified in the application, and grant funds are not transferable to other projects. Approval from the Evaluation Committee will be required for any significant variation from the approved project.

To propose changes to an approved project, applicants are required to submit:

- Revised application package, including updated, signed application form, updated budget and an updated Council, Board or Band Council resolution
- Written rationale for proposed changes to activities and/or expenditures

Applicants are responsible for any costs above the approved grant unless a revised application is submitted and approved prior to work being undertaken.

Extensions to Project End Date

All approved activities are required to be completed within the time frame identified in the approval letter and all extensions beyond this date must be requested in writing and be approved by UBCM. Extensions will not exceed one year.

10. Interim & Final Report Requirements & Process

Applicants with phased fuel management projects are required to submit an interim report before fuel management treatments commence. Refer to Appendix 3 for requirements.

Applicants are required to submit an electronic copy of the complete final report, including the following:

- Completed Final Report Form with all required attachments
- Final Report Worksheet 1 and all required attachments
- For fuel management activities only: Final Report Worksheet 2 and all required attachments
- Maps and spatial data (only required for CWPPs/CWRPs and fuel management activities) as outlined in Appendix 4
- Optional: any photos or media related to the funded project

Submission of Interim & Final Reports

Interim and final reports should be submitted as Word or PDF files. If you choose to submit your report by e-mail, hard copies do not need to follow. Total file size for email attachments cannot exceed 20 MB.

All interim and final reports should be submitted to:

Local Government Program Services, Union of BC Municipalities

E-mail: cri-swpi@ubcm.ca

Mail: 525 Government Street, Victoria, BC, V8V 0A8

Review of Final Reports

UBCM will perform a preliminary review of all final reports to ensure the required report elements have been submitted. Following this, all complete final reports and deliverables will be reviewed by FNESS and/or FLNRORD before grant payment is released.

All final report materials will be shared with the Province of BC and BC FireSmart Committee.

11. Additional Information

For enquiries about the application process or general enquiries about the program, please contact UBCM at cri-swpi@ubcm.ca or (250) 356-2947.

Appendix 1: Risk Framework & Risk Class Maps

The BC Flood and Wildfire Review recommended that the provincial government identify risk management strategies to guide and prioritize funding for wildfire mitigation activities based on community risk (recommendation #81).

Differing risk levels require tailored risk management to minimize negative impacts from wildfires to communities and high value resources and assets (HVRAs). The intent is to enable cost effective wildfire risk reduction strategies that will mitigate wildfire threat to communities and HVRAs at two different scales – local and provincial.

Identifying your WUI Risk Class (1-5) and Associated Polygon Name

Under the FireSmart Community Funding & Supports program, applicants are required to identify the WUI Risk class to provide evidence of wildfire risk in their community. The risk class framework and the related maps and Google Earth compatible KML files are used to support this requirement and applicants must locate their general area of interest on the [Wildland Urban Interface Risk Class Maps](#) or Google Earth compatible KML files in order to determine their wildfire risk class. In cases where local assessments provide additional evidence of higher wildfire risk (than the WUI Risk Class), applicants can provide this information in their application in support of their proposed activities.

New in 2021 - Google Earth compatible KML files have been created for each Fire Centre with the WUI Risk Class Maps information. An additional layer has been provided for the WUI Risk Class Maps and the Google Earth KML files with completed fuel treatments including treatments funded through the Strategic Wildfire Prevention Initiative, Forest Enhancement Society of BC, FireSmart Community Funding & Supports and Crown Land Wildfire Risk Reduction programs to date.

Wildfire Risk Framework

A risk-based framework consists of the consideration of the likelihood of an unwanted wildfire event and the consequences to communities and high value resources and assets as the measure of risk, as follows:

- Likelihood is the probability of the unwanted wildfire event occurring
- Consequence is the amount of damage occurring as a result
- Risk is measured as the product of likelihood and consequence, but multiple inputs are also required in order to effectively quantify risk, including severity, value type, and vulnerability

Through the identification of risk level, priorities for mitigation as well as opportunities for increasing community resiliency are both enhanced.

Provincial Strategic Threat Analysis

At a provincial scale, the wildfire risk framework starts with an analysis of the WUI. Quantification of wildfire threat components, including likelihood (fire occurrence) and severity (head fire intensity, which is calculated using the 90th percentile weather conditions and fuel type) and wildfire propagation potential (spotting) at the provincial scale, is represented by the [Provincial Strategic Threat Analysis](#) (PSTA).

The PSTA assesses and maps potential threats to values on the landscape, including communities, infrastructure and natural resources.

This identifies areas for wildfire risk reduction in order to minimize negative impacts to human life and safety including first responders, public health and the infrastructure required to maintain business continuity and support recovery efforts.

For areas where there is a discrepancy with the classification, local wildfire threat plots will need to be completed to quantify the change in the wildfire threat class. This process is described in the 2020 Wildfire Threat Assessment Guide and Worksheets. The updated wildfire threat will be used to develop local risk class assessments which will be planned and implemented on priority WUI areas and for isolated critical infrastructure.

Local risk class assessments can then be planned and implemented on priority WUI areas and for isolated critical infrastructure.

WUI Risk Class Assessment & Maps

In BC, structure densities are used to define the human structure interface boundary of the WUI for fire and risk management planning purposes. It identifies the zone of transition between unoccupied land and human development. A two-kilometre buffer distance is then applied to represent a reasonable maximum distance that embers can travel from a wildfire to ignite a structure. This has represented the historic approach to defining the WUI for BC.

New in 2021 – In accordance with the eligible activity criteria, the FCFS Eligible WUI one-kilometre buffer has been added to the WUI RC maps to aid applicants in designing fuel breaks and CWRPs. Spatial data for WUI Risk Class maps, including the one-kilometre buffer, are available at any time for local authorities by sending a request to BCWILDFIREGEO@gov.bc.ca

Once defined, the WUI layer is combined with the PSTA wildfire threat layer (Crown land) to highlight a coarse scale spatial pattern of risk area using certain criteria, such as density and threat ratings. The WUI risk class assessment is driven by structure location (not by administrative boundaries) to reflect the actual location of structures that exist on the land base in relation to wildfire threat. This creates WUI polygons that may include multiple jurisdictions (e.g. regional district, municipal or First Nations land) that are linked by the continuity of structure density.

Currently the province only has data available to support fire threat analysis on Provincial Crown land. There are large tracts of private land that exist within the WUI where no data is available. The amount of private land is an important component in the risk analysis due to the lack of data to inform fire risk identification across jurisdictional boundaries. Therefore the buffer was expanded to 2.75-kilometres around structure classes with a density of >25 for the analysis in order to create separate WUI polygons. A subsequent analysis of the PSTA data was performed to allocate polygons to one of five Risk Classes.

The resulting WUI Risk Class Map highlights patterns and trends in the WUI in a simplistic and easy to understand way. This is available as a high-level analysis to support the initial identification of areas for FireSmart Community Funding & Supports applications.

Subsequent activities or inputs are required to determine the most effective risk control options, including developing a Community Wildfire Resiliency Plan (or update) or other plan that includes assessment of local threat on the ground, and identification of FireSmart priorities, ground truthing the area to determine local threat, and developing a site level plan for treatments.

Private Land

In some areas of the province the private land percentage is still too high for the analyses to provide a meaningful risk class rating. For the northeast area of the province around Fort St. John and Dawson Creek, extensive tracts of private land surround the smaller WUI polygons. A manual process was used to assign the risk class to these areas. Additional PSTA map extents are provided for the map sheets

around the Vanderhoof, Kettle Valley and Prince George areas as well, for information only, as the risk classes were assigned for these additional WUI polygons. Please contact your local Fire Centre contact for further information regarding these specific areas.

Appendix 2 – Funding Requirements for FireSmart Rebate Program

Under the FireSmart Community Funding & Supports program, approved applicants can use grant funding to offer local rebate programs to residential property or home owners that complete eligible FireSmart activities on their properties in the FireSmart Home Ignition Zone which includes the home and surrounding yard area - Non-Combustible Zone and Priority Zones 1, 2 and 3.

To be eligible for funding, a rebate program must address the goals of FireSmart and follow the requirements outlined below.

Goals of FireSmart

The general goal of [FireSmart](#) is to encourage communities and citizens to adopt and conduct FireSmart practices to mitigate the negative impacts of wildfire to assets on public and private property.

Rebate Program Requirements

Approved applicants are required to adhere to the following requirements:

- Rebates are limited to 50% of the total cost of the eligible activities identified in Table 2 and no more than \$500 per property
- Areas of higher wildfire risk, such as neighbourhoods adjacent to the forested edge and/or areas that fall in an overall high to extreme category, should be prioritized for rebates. Current plans should be used to decide where to offer a FireSmart rebate program.
- The approved applicant must assess the FireSmart activities that are conducted by the residential property or home owner and review costs (e.g. receipts and/or proof of labour) before approving rebates

To qualify for a rebate:

- The residential property or home owner must have a [FireSmart Home Ignition Zone Assessment Score Card](#) of their property conducted by a qualified Local FireSmart Representative, that identifies the property in a moderate, high or extreme category (refer to Table 1 – Community Planning for funding eligibility)
- The qualified Local FireSmart Representatives must use the [FireSmart Assessment Work Hours Estimate Form](#) to outline mitigation recommendations to the residential property or home owner
- Residential property or home owners can complete the recommended mitigation activities themselves, or hire others to complete the work
- Only activities that are recommended in the completed assessment and that are identified in Table 2, are eligible for the rebate

Home or Structure		
1	Roof Material Gutters Vents and Openings	<ul style="list-style-type: none"> • Install UL/ASTM fire-rated roofing (metal, clay, asphalt shingles) • Install non-combustible gutters and/or gutter covers • Remove roof surface tree needles, debris or overhanging branches • Install closed eaves and/or non-combustible fire-rated vents or vents with 3 mm screening
2	Building Exterior or	<ul style="list-style-type: none"> • Install ignition resistant (fibre cement board or log) or non-combustible (stucco, metal, brick/stone) exterior siding material

	Siding	<ul style="list-style-type: none"> • Repair gaps, cracks or holes where embers could lodge or penetrate • Provide 15 cm non-combustible vertical ground-to-siding clearance
3	Windows & Doors	<ul style="list-style-type: none"> • Install tempered glass in all doors and windows • Replace single pane window glass with multi pane / thermal window glass • Repair gaps in doors / garage doors where embers could accumulate or penetrate
4	Balcony, deck, porch	<ul style="list-style-type: none"> • Install non-combustible or fire-rated, solid (no gaps or cracks) deck surface and support construction • Close up open deck structures or remove all combustibles below deck
Yard / Non-Combustible Zone (0 to 1.5 metres from Home)		
5	1.5 metres from furthest extent of home	<ul style="list-style-type: none"> • Replace combustible surfaces with non-combustible surfaces • Remove combustible debris, materials, fences or plants
Yard / Zone 1 (1.5 to 10 metres from Home)		
6	Adjacent Combustibles	<ul style="list-style-type: none"> • Move woodpiles, building materials and all other combustibles into Zone 2 or enclose in an outbuilding that meets FireSmart guidelines
7	Outbuildings not meeting FireSmart guidelines	<ul style="list-style-type: none"> • Relocate outbuildings not meeting FireSmart guidelines more than 10 metres from home or upgrade outbuildings to meet FireSmart guidelines
8	Trees	<ul style="list-style-type: none"> • Replace (with deciduous) or remove coniferous (evergreen) species
9	Surface vegetation and combustible materials	<ul style="list-style-type: none"> • Cut and maintain grass to less than 10 cm or shorter • Replace flammable - continuous or tall growing plants with low flammability, low growing, discontinuous plants • Remove branches, logs and needles, leaves and debris accumulations
Yard / Zone 2 (10 to 30 metres from Home) and Zone 3 (30 to 100 metres from Home)		
<i>Note: Zone 3 should not be addressed until the building, Non-Combustible Zone, Zone 1 and Zone 2 have first been addressed. Consider seeking the guidance of a forest professional with wildland fire knowledge on appropriate management options for Zone 3.</i>		
10	Trees	<ul style="list-style-type: none"> • Thin coniferous trees or replace with deciduous tree species • Remove conifer tree branches within 2 metres of the ground
11	Surface Vegetation	<ul style="list-style-type: none"> • Reduce surface vegetation – long grass and flammable shrubs • Reduce accumulations of branches, logs and debris

Appendix 3 – Funding Requirements for Fuel Management Activities

Fuel Management Activities

Under the FireSmart Community Funding & Supports program, fuel management activities include the development of fuel management prescriptions and burns plans, as well as operational fuel treatments, including prescribed burns. Refer to Section 3 for eligible projects and Section 4 for the requirements for funding.

Fuel management activities are required to be within municipal boundaries, regional district parks or First Nations land, however contiguous, logical treatment units that extend onto the Crown land base may be considered provided that:

- a. Fuel management activities are adjacent to community structures, and
- b. Extend no further than one-kilometre from the structure density class greater than 6 (see Appendix 1)

Fuel management located exclusively on Provincial Crown land, outside of municipal boundaries, regional district parks or First Nations land, is administered through the Crown Land Wildfire Risk Reduction stream. Applicants are required to contact the BCWS for further discussion regarding identified fuel treatment units located on Provincial Crown lands.

Prescriptions

A [Fuel Management Prescription](#) is a document that identifies the objectives and strategies to lower the wildfire hazard in an identified area. Prescriptions ensure that proposed treatments include clearly defined objectives for fuel management that will result in a measurable reduction in the wildfire risk to a value while meeting all legislated and non-statutory requirements. Updating prescriptions for maintenance treatments is also eligible for funding.

Prescriptions that are part of phased projects (discussed below) or that have been funded outside of the CRI or SWPI program streams are required to undergo a technical review by the BCWS Wildfire Prevention Officer or FNESS Fuel Management Liaison/Specialist.

Adequate time (at least 30 days) is required for technical review to be completed prior to submitting an application or planning for the initiation of the fuel treatment component of a phased project. When an approved project includes multiple prescriptions, it is preferred that all completed prescriptions are submitted at the same time.

Burn Plans

A burn plan is a documented plan prepared in advance of a prescribed fire that describes the objectives, burn operations, mitigation plan and post-fire monitoring of the open fire. A completed prescription endorsed by the land manager is required prior to initiating a Burn Plan.

Burn plan development is a collaborative process that requires a 60-day review period upon submission of the burn plan before the intended implementation date. Please contact the BCWS Wildfire Prevention Officer if developing a Burn Plan. (Note: As per Appendix 1a of the template – Burn Plan Signature Sheet, the BCWS Fire Centre Manager or designate is required to approve the burn plan.)

Eligible Prescription/Burn Plan Development Costs & Activities:

- Activities related to prescription development (e.g. approved Canadian wildfire modelling or stakeholder engagement)

- Activities related to burn plan development including identification of values in containment areas, additional data collection requirements and engaging with burn specialists
- Required professional assessments (e.g. geotechnical, archaeological, fire ecologist, range agrologist, etc.).
- [Information sharing with First Nations](#), as required by the Land Manager
- Site evaluation, including field reconnaissance, wildfire threat assessment plots, data collection as outlined in 2020 prescription guidance document and the evaluation of site access
- Lay out and traversing of proposed areas for treatments
- Preparation of all final report requirements, including maps, spatial data and metadata

Treatments/Prescribed Burns

Fuel management treatments are the manipulation or reduction of living or dead forest and grassland fuels to reduce the rate of spread and head fire intensity and enhance likelihood of successful suppression, generally outside of FireSmart Non-combustible Zone and Priority Zones 1, 2 and 3.

When developing a tactical plan for managing forest fuel to reduce wildfire risk to communities, the best approach to complete this task is fuel breaks. Fuel breaks are linear features on the landscape that provide continuity of treatments that allow for the best wildfire management option for an approaching wildfire. The placement of these fuel breaks needs to consider prevailing wind direction, wildfire spread potential and historical wildfire spread in the WUI. BCWS have developed [Initial Spread Index/ Wind roses](#) that show that potential for all BCWS weather stations.

Activities may include treatments such as thinning, spacing and pruning trees, and removal of woody debris and needles (i.e. surface fuel) from the forest floor. The intent is to reduce fuel loading on the site to change fire behaviour and increase suppression success.

[Prescribed burns](#) primarily for community wildfire risk reduction objectives are eligible for funding under the fuel management activity. Due to relatively narrow burn windows associated with weather and site conditions, as well as timelines associated with fire hazard abatement requirements, it is anticipated prescribed fire will be more appropriate and common as a maintenance treatment than as part of the initial suite of treatments.

Maintenance treatments (generally for areas that have had fuel management treatments in the last 5 to 15 years) are eligible for funding. It is expected that maintenance treatments will have lower costs. Applicants should discuss any proposed maintenance activities with the BCWS Wildfire Prevention Officer or FNESS Fuel Management Liaison/Specialist to ensure that the requirements for a new or updated fuel management prescription are addressed and to identify where the Crown Land Wildfire Risk Reduction stream can fund when located outside of municipal and First Nations boundaries.

Eligible Fuel Treatment Costs & Activities:

- Pre-treatment activities: activities required to obtain authorizations, danger tree assessments, notification to First Nations and stakeholders and public engagement activities
- Treatments: pruning, thinning, tree falling, brushing, grazing, debris management (e.g. pile and burning) and/or reforestation
- Post-treatment activities: completion of post treatment data collection, signage and post treatment report
- Preparation of all final report requirements, including maps, spatial data and metadata, including a post treatment report

In addition, when prescribed fire is undertaken as a fuel management activity for community wildfire risk reduction, the following costs and activities are eligible:

- Burn preparation activities including fire weather index monitoring, public notification and preparing black lines. Note: pre-burn costs are eligible costs if no burn window is achieved
- Burn day activities including spot forecasts, equipment set up and transport (may include aerial ignition) and traffic control
- Post-burn activities including surveys, mop up and final reporting. A budget estimate based on mop-up requirements within the approved burn plan should be included. Where an increased level of mop up (i.e. 100%) is required as indicated by the Burn Boss, in consultation with BCWS, include a contingency cost estimate as a separate budget line item in preparation of potentially dynamic mop up conditions.

Phased Projects

Applicants can apply for fuel management projects that include prescription and/or burn plan development and fuel management treatment, including prescribed burns, for the same treatment unit(s) provided that sufficient detail on estimated treatment size and post-treatment outcomes are included. Under the FireSmart Community Funding & Supports program, this is considered a phased project and specific funding conditions will apply.

Application Requirements

In addition to the required application materials for the FireSmart Community Funding & Supports program, projects that include fuel management activities are required to submit:

- Worksheet 2: Proposed Fuel Management Activities and all required attachments
- Overview/cumulative map of the community, previously completed treatments, proposed treatments for this application, and planned future treatments. Refer to [2020 WUI Risk Class Maps](#) and Google Earth compatible KML files (Appendix 1).
- PDF map and Google Earth compatible KML file, at appropriate scale, outlining the area of interest, proposed treatments units, land status and tenure overlaps, as defined in Appendix 4
- If available, current, wildfire threat assessment plots and/or fuel loading data and rationale for the proposed treatment unit(s) (see [Fuel Management Prescription Guidance](#) document for more information)
- For fuel management treatments only:
 - Completed (signed and sealed) prescription
 - For prescribed fire, completed (signed and sealed) prescription burn plan in addition to Fuel Management Prescription
 - Project spatial layers as defined in Section I of Appendix 4

Interim Report Requirements for Phased Projects Only

For projects that include prescription/prescribed fire burn plan development and fuel management treatment for the same treatment unit(s) the following is required.

The completed signed/sealed prescription and prescribed fire burn plan and, for treatment on Crown land only, confirmation that First Nations information sharing has been completed, must be submitted to UBCM.

The prescription and/or prescribed fire burn plan will be reviewed by the BCWS Wildfire Prevention Officer or FNESS Fuel Management Liaison/Specialist and must be supported prior to initiation of the fuel management treatment. Treatments that have been initiated prior to an approved technical review may not be eligible for further funding.

In addition, in order to receive authorizations for the treatment, the land manager will require the completed prescription/burn plan, as well as additional information. This may include:

- Maps
- Project boundary spatial layer
- Confirmation that First Nations information sharing has been completed

If the applicant is requesting a progress payment at the completion of the prescription and burn plan (for prescribed fire) phase, the complete final report requirements for prescriptions and burns plans (identified in Table 3) must be submitted to UBCM. Otherwise, this information is required to be submitted as part of the overall final report.

Final Report Requirements

In addition to the required final report materials for the FireSmart Community Funding & Supports program, projects that include fuel management activities are required to submit the following.

Table 3: Fuel Management Final Report Requirements	
Fuel Management Prescriptions and Burn Plans (for prescribed fire)	Fuel Management Treatments, including prescribed fire
<p>Copy of the fuel management prescription that is signed and sealed by a Registered Forest Professional including all ancillary assessments (e.g. terrain stability).</p> <p>Copy of the Burn Plan that is signed by the qualified professional (e.g. fire behaviour speciality, burn boss or otherwise).</p>	<p>Post-treatment wildfire threat assessments or data collection as outlined in 2020 prescription guidance document.</p> <p>Post-treatment report with updated survey data collection as per direction in the prescription, summary of post treatments conditions and fire behaviour outcomes and relationship to prescription treatment objectives. Pre and post-treatment pictures as well – minimum of three per TU. Attached original final prescription.</p>
<p>PDF maps, at appropriate scale, as identified in Appendix 4</p>	<p>PDF maps, at appropriate scale, as identified in Appendix 4</p>
<p>Spatial data, as identified in Appendix 4, is required for Provincial Crown land (to support Land Manager clearances) only if the approved project does not include fuel management treatments of the prescribed area.</p>	<p>Spatial data for Provincial Crown land treatments is required to be entered into RESULTS and the Activity Treatment ID is required as evidence of a successful RESULTS entry. Please refer to the “RESULTS Information Submission Specifications: Government Funded Activities” document found in the “Submission Specifications Data Requirements” section.</p>

	For local government or First Nations land (i.e. non-Provincial Crown land), spatial data is required, as identified in Appendix 4.
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Appendix 4: Requirements for Maps & Spatial Data

Large format georeferenced PDF maps that clearly represent (at a suitable scale) the following required content and spatial data submissions, including metadata, are required as part of the final report requirements for CWPPs/CWRPs and fuel management activities.

Provincial Crown land: treatments are required to be entered into RESULTS and the Treatment Activity ID will be required as evidence of a successful RESULTS entry. Please refer to [RESULTS Information Submission Specifications: Government Funded Activities](#).

A. Summary of Map & Spatial Data Requirements

	Maps	Spatial Data Layers	Notes
CWRPs	<ul style="list-style-type: none"> Area of Interest (AOI) and VAR Local Fire Risk Proposed Fuel Treatment Units 	<ul style="list-style-type: none"> AOI PROPOSED_TREATMENT FCFS_WUI 	<p>Refer to Part B and C for maps</p> <p>Refer to Part F, G, and I for spatial data</p>
Fuel Management Prescriptions including prescribed fire	<ul style="list-style-type: none"> Fuel management Prescription 	<ul style="list-style-type: none"> PRESC_PROJECT_BOUNDARY PRESC_TREATMENT_UNIT 	<p>Refer to Part B and D for maps</p> <p>Refer to Part F, H and I for spatial data</p>
Fuel Management Treatments	<ul style="list-style-type: none"> Fuel Management Treatment 	<ul style="list-style-type: none"> OP_PROJECT_BOUNDARY OP_TREATMENT_UNIT OP_STAND_TREATMENT OP_DEBRIS_MGMT 	<p>Refer to Part B and E for maps</p> <p>Refer to Part F, H and I for spatial data</p>

B. Mandatory Requirements for All Maps

- Descriptive title
- Scale (as text or scale bar)
- North arrow
- Legend
- CRI Project number and proponent name, consultant and GIS company name
- Date
- Reference data such as roads, railways, transmission lines, pipelines, water bodies and rivers/creeks
- Compress map files to reduce unnecessary large file sizes

C. Required Maps for CWRPs

MAP 1: Area of Interest (AOI) and VAR

- CWRP AOI
- Land ownership and administrative boundaries (Municipal, Federal, Private, Parks, Crown etc.)
- Relevant tenures such as range, woodlots, community forest areas
- Fire Department Boundaries
- Proposed or completed fuel treatments
- FireSmart areas, Wildfire Hazard Development Permit Areas
- Values at risk (critical infrastructure)
- High environmental and cultural values
- Hazardous values at risk

MAP 2: Local Fire Risk

- CWRP FCFS WUI one-kilometre buffer
- PSTA Threat or Modified Local Level Polygons
- Hectares of each PSTA Threat Class or Modified Local Level Threat Class must be stated on the map in a table

MAP 3: Proposed Fuel Treatment Units

- CWRP AOI
- Land Status and tenure overlaps e.g. range, woodlots etc.
- Proposed fuel treatment units, labelled by PROPOSED_TREATMENT_ID
- Previously completed treatments, labelled by year
- Hectares of Proposed Fuel Treatments in a table on map (PROPOSED_TREATMENT_ID, AREAHA)

D. Required Map for Fuel Management Prescriptions

- PRESC Project Boundary with land status and tenure overlaps (e.g. range, woodlots, area-based tenures)
- Access including proposed roads, and stream crossings
- Values including any reserves, wildlife habitat areas, or critical infrastructure
- Streams, wetlands, lakes including the class and identification number/name
- Areas of safety concern (steep slopes).
- PRESCRIBED_TREATMENT_UNIT (labelled by TREATMENT_UNIT_ID)
- Access including existing/proposed roads, trails and stream crossings
- Previously completed treatments if applicable (labelled by year)
- Table with all areas identified in Treatment Unit Summary, including treatment regime and hectares (from the signed Fuel Management Prescription doc)
- Wildfire Threat Assessment plots / labelled by PLOT_NUMBER

E. Required Map for Fuel Management Treatment

- OP project boundary with land status and tenure overlaps (e.g. range, area-based tenures woodlots)
- OP_TREATMENT_UNIT (labelled by TREATMENT_UNIT_ID)
- Stand treatment and debris management activity
- A table of total net project boundary hectares, and Stand and Debris activity summarized by individual treatment unit hectares
- Previously completed treatments if applicable (labelled by year)
- Wildfire Threat Assessment plots / labelled by PLOT_NUMBER

F. Spatial Data Requirements

The Province of BC uses ArcGIS 10.6 and all spatial data submissions must be compatible with ArcGIS 10.6. In addition, some feature layers as identified in the table below, are also required in a KMZ format.

Spatial data must conform to the following general formats, naming conventions and standards.

- 1. Data Format and Naming Conventions:** Data must be submitted in a File Geodatabase (FGDB) and KMZ format and must conform to the conventions for feature dataset names, feature class names, attribute names, and attribute values as identified in the Specific Submission Requirements by Project Type section below. It is strongly recommended that you use the template FGDB in order to facilitate meeting this requirement.

FGDB and KMZ names must adhere to the following naming standard:

< Local Government/First Nation Band Number>_<ProjectTypeAndDescription>

For example: PrinceGeorge_CWRPNorthPG.gdb

PrinceGeorge_CWRPNorthPG.KMZ

FN699_CWRPNorthPG.gdb

FN699_CWRPNorthPG.KMZ

- 2. FGDB Projection:** The projection standard is NAD_1983_BC_Environment_Albers (EPSG:3005), with parameters of:

Central meridian: -126.0° (126°00'00" West longitude)

Latitude of projection origin: 45.0 (45°00'00 North latitude)

First standard parallel: 50.0° (50°00'00" North latitude)

Second standard parallel: 58.5° (58°30'00" North latitude)

False easting: 1000000.0 (one million metres)

False northing: 0.0

Datum: NAD83, based on the GRS80 ellipsoid.

- 3. Data Quality:** Submitted data must meet general data quality guidelines to ensure corporate data quality standards are met. Data with slivers, gaps between adjacent polygons, and geometry errors will not be accepted.
- 4. Metadata:** Metadata must be provided for all spatial layers. The metadata standard is FGDC and is required to be submitted in .xml format. Metadata must document the following:
 - a. A description of what each dataset represents for all datasets provided in addition to what is outlined in the individual project sections.
 - b. A description of each attribute and the codes/values used to populate it for all attributes provided in addition to what is outlined in the individual project sections.
 - c. Data Source information including where the data came from, the currency of the information and source contact details for potential follow-up
 - d. For resultant datasets, metadata must also include the methodology and source data used in the creation of the resultant, the date of creation, and contact details for the person who created it.
- 5. Submission:** The method for spatial data submission is a file geodatabase (FGDB) compressed into a zip file and KMZ file(s)

Additional notes about CWRP submissions:

- All spatial layers in addition to those identified in this guide, that are a key component of the CWRP maps or plan, must be included as part of the spatial submission and must include metadata.
- If more than one data collection method was used, please choose the value that best represents how the information was captured.

Additional notes about Fuel Management and Prescription submissions:

- The prescription_ operational project boundary represents the net operational area.
- One single or multi part polygon must be submitted for each treatment unit and/or activity.
- Project boundary, treatment unit and spatial hectares must match the net hectares stated on the maps and in the final report, or worksheet 2 for fuel treatments.
- Provincial Crown land: treatments will be required to be entered into RESULTS.

Please note: Spatial data submissions will be evaluated against these criteria. The final report and payment of grant funding will not be approved until all of these criteria are met.

Specific Submission Requirements by Project Type

G. Community Wildfire Resiliency Plan

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
AOI	YES	CWRP area of interest	DATA_COLLECTION_DATE	Date spatial data was collected	Date (DD/MM/YYYY)
			DATA_COLLECTION_METHOD	Method of spatial data collection (ex. GPS, digitized, etc.). See Table 1	Text, 45
			AREAHA	Area in hectares	Double
FCFS_WUI	YES	Fire Smart Community Funding & Supports program 1km WUI	DATA_SOURCE	Origin of FCFS_WUI source. eg "WUI 2017" or for updated buffers suffixed with applicants name eg. CWRP - Cariboo RD	Text, 75
			DATA_COLLECTION_DATE	Date the spatial data was collected	Date (DD/MM/YYYY)
			DATA_COLLECTION_METHOD	Method of spatial data collection (ex. GPS, digitized, etc.). See Table 1	Text, 45
			AREA_HA	Area in hectares	Double
PROPOSED_TREATMENT	YES	Proposed gross treatment area	PROPOSED_TREATMENT_ID	Unique proposed treatment identifier	Text, 7
			DATA_COLLECTION_DATE	Date spatial data was collected	Date (DD/MM/YYYY)
			DATA_COLLECTION_METHOD	Method of spatial data collection (ex. GPS, digitized, etc.). See Table 1	Text, 45
			AREA_HA	Area in hectares	Double

H. Specific Submission Requirements for Fuel Management and/or Prescription

Fuel Management Prescription

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
PRESC_PROJECT_BOUNDARY	YES	Single or multi-part dissolved polygon layer defining the <u>net</u> area under prescription	DATA_COLLECTION_DATE	Date spatial data was collected	Date (DD/MM/YYYY)
			DATA_COLLECTION_METHOD	Method of spatial data collection (ex. GPS, digitized, etc.). See Table 1	Text, 45
			AREAHA	Area in hectares	Double
PRESC_TREATMENT_UNIT	YES	Prescription treatment units	TREATMENT_UNIT_ID	Treatment Unit ID	Text, 10
			CURRENT_FUEL_TYPE	Current treatment unit fuel type. See Table 2	Text, 15
			CURRENT_STEMS_PER_HA	Current treatment unit density stems per hectare	Long integer
			LOCATION_NAME	Geographic description of treatment unit	Text, 50
			DATA_COLLECTION_DATE	Date spatial data was collected	Date (DD/MM/YYYY)
			DATA_COLLECTION_METHOD	Method of spatial data collection (ex. GPS, digitized, etc.). See Table 1	Text, 45
			AREAHA	Area in hectares	Double

Fuel Management Treatment

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
OP_PROJECT_BOUNDARY	YES	Single or multi-part dissolved polygon layer defining the <u>net</u> operational area	DATA_COLLECTION_DATE	Date spatial data was collected	Date (DD/MM/YYYY)
			DATA_COLLECTION_METHOD	Method of spatial data collection (ex. GPS, digitized, etc.). See Table 1	Text, 45
			AREAHA	Area in hectares	Double
OP_TREATMENT_UNIT	YES	Operational treatment units	TREATMENT_UNIT_ID	Treatment Unit ID	Text, 10
			POST_STEMS_PER_HA	Current treatment unit density stems per hectare	Long integer
			LOCATION_NAME	Geographic description of treatment unit	Text, 50
			DATA_COLLECTION_DATE	Date spatial data was collected	Date (DD/MM/YYYY)
			DATA_COLLECTION_METHOD	Method of spatial data collection (ex. GPS, digitized, etc.). See Table 1	Text, 45
			AREAHA	Area in hectares	Double
OP_STAND_TREATMENT	YES	Operational stand treatment area	STAND_TREATMENT_TECHNIQUE	Broad category of technique used for stand treatment activity. See Table 3	Text, 20
			STAND_TREATMENT_METHOD	Method used to perform treatment activity. See Table 3	Text, 20
			STAND_TREATMENT_END_DATE	Date stand treatment activity completed.	Date (DD/MM/YYYY)
			DATA_COLLECTION_DATE	Date spatial data was collected	Date (DD/MM/YYYY)
			DATA_COLLECTION_METHOD	Method of spatial data collection (ex. GPS, digitized, etc.). See Table 1	Text, 45
			AREAHA	Area in hectares	Double
OP_DEBRIS_MGMT	YES	Operational debris management area	DEBRIS_MGMT_TECHNIQUE	Broad category of technique used for debris management activity. See Table 4	Text, 20
			DEBRIS_MGMT_METHOD	Method used to perform debris management activity. See Table 4	Text, 20
			DEBRIS_MGMT_END_DATE	Date debris management activity completed	Date (DD/MM/YYYY)
			DATA_COLLECTION_DATE	Date spatial data was collected	Date (DD/MM/YYYY)

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
			DATA_COLLECTION_METHOD	Method of spatial data collection (ex. GPS, digitized, etc.). See Table 1	Text, 45
			AREAHA	Area in hectares	Double

I. Attribute Value Reference Tables

Table 1: Data Collection Method

DATA_COLLECTION_METHOD	DESCRIPTION
differentialGPS	The data was captured with a differential GPS unit, or was post-processed with information received from known reference stations, to improve data accuracy.
Digitizing	The data was converted from an analog map into a digital format using a digitizing tablet connected to a computer.
GISAnalysis	The data was created as a result of a GIS Analysis.
nondifferentialGPS	The data was captured with a GPS unit but was not post-processed or was captured with a GPS unit incapable of doing differential GPS.
orthoPhotography	The data was delineated from an orthophoto (aerial photography).
Photogrammetric	The data was delineated using photographs or images in stereo pairs
satelliteImagery	The data was delineated from a satellite image.
sketchMap	The data was hand sketched, either on an analog map or on-screen.
tightChainTraverse	The data was surveyed with a hand compass and chain to create a closed traverse.

Table 2: Fuel Type

FUEL_TYPE	DESCRIPTION
C-1	C-1 Spruce Lichen Woodland
C-2	C-2 Boreal Spruce
C-3	C-3 Mature Jack or Lodgepole Pine
C-4	C-4 Immature Jack, Lodgepole Pine, densely stocked Ponderosa Pine, or Douglas Fir
C-5	C-5 Red and White Pine
C-6	C-6 Conifer Plantation
C-7	C-7 Ponderosa Pine or Douglas Fir
D-1/2	D-1/2 Green or Leafless Aspen or Deciduous shrub
S-1	S-1 Jack or Lodgepole Pine slash
S-2	S-2 White Spruce, Balsam slash
S-3	S-3 Coastal Cedar, Hemlock, Douglas-Fir slash
O-1a/b	O-1a/b Matted or Standing Grass
M-1/2	M-1/2 Green or Leafless Mixedwood
M-3	M-3 Dead Balsam Fir Mixedwood – leafless
Non-fuel	Non-fuel
Unclassified	Unclassified
Water	Water

Table 3: Stand Treatment Technique:

STAND_TREATMENT_TECHNIQUE	STAND_TREATMENT_METHOD
Prescribed Fire	Broadcast Burn
Pruning	Hand
Tree Felling	Hand
Tree Felling	Mechanical
Thinning	Hand
Thinning	Mechanical
Planting	NA

Table 4: Debris Management Technique:

DEBRIS_MGMT_TECHNIQUE	DEBRIS_MGMT_METHOD
Prescribed Fire	Pile Burning
Prescribed Fire	Broadcast Burn
Debris Management	NA
Debris Removal	Removal