

# 2020 Community Resiliency Investment Program

## FireSmart Community Funding & Supports

### Program & Application Guide

#### 1. Introduction

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The [Community Resiliency Investment](#) (CRI) program is intended to reduce the risk and impact of wildfire to communities in BC through community funding, supports and priority fuel management activities on provincial Crown land. The program was launched in 2018 and more than 120 First Nations and local governments have received funding.

The Union of BC Municipalities (UBCM), First Nations' Emergency Services Society (FNESS) and the Forest Enhancement Society of BC (FESBC) are working with the Ministry of Forests, Lands, Natural Resource Operations & Rural Development (FLNRORD), represented by the BC Wildfire Service (BCWS), to administer the FireSmart™<sup>1</sup> Community Funding & Supports portion of the program for local government and First Nation applicants.

#### FireSmart

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.”<sup>2</sup> [FireSmart](#), including fuel management, is a key means of addressing this need.

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. 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.<sup>3</sup> This was true in both the urban and rural areas.

#### 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 planning and activities that reduce the community's risk from wildfire.

The program is structured to fund FireSmart activities in all eligible communities throughout BC. Funding is scaled to offer eligible applicants with lower risk of wildfire to apply for up to \$25,000 and applicants with a demonstrated higher risk of wildfire to apply for up to \$150,000 per year. Information on determining risk is provided in Appendix 1, and updated risk class maps will be available in July 2019.

Applications that include fuel management on Provincial Crown land, primarily within administrative boundaries and including contiguous, logical treatment units that extend onto the Crown land base, may

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<sup>1</sup> The FireSmart brand is a registered trademark of Partners in Protection

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

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



exceed the funding maximum for fuel management activities only. Opportunities for fuel management located exclusively on Provincial Crown land, outside of municipal boundaries or First Nation lands, should be discussed with a BCWS Wildfire Prevention Officer.

## **2. Eligible Applicants**

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All local governments (municipalities and regional districts) and First Nations (bands and Treaty First Nations) 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**

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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.

### **Regional Projects**

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 funding available would be based on the number of eligible applicants included in the application. It is expected that regional projects will demonstrate cost-efficiencies in the total grant request.

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.

## **4. Requirements for Funding**

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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 prior to the submission of an application to allow for meaningful dialogue regarding the proposed activities and opportunities for Crown land treatment and funding.

In addition, to qualify for funding, projects must:

- Be primarily located within the applicant's administrative boundary
- 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 treatment 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. CWPP, Community Wildfire Resiliency Plan, Integrated Investment Plan, etc.). Note: applicants that do not have a current and acceptable plan may apply to develop or update a plan.
- 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](#).

Further, projects that include fuel management activities must:

- 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, authorizations and/or permits
- Where applicable, for resource values assessments, be developed and signed/sealed by a qualified professional (e.g. terrain stability assessments must be signed/sealed by a professional engineer)
- Where applicable, on Provincial Crown land only, meet Forest Enhancement Society of BC contract tendering requirements

## 5. Definitions

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**First Nations land:** Land owned by a Treaty First Nation (as defined by the *Interpretation Act*) within treaty settlement lands or First Nation reserve land

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

**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.

**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

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

**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.)

**Fuel management treatments:** 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 Noncombustible Zone and Priority Zones 1, 2 and 3](#). See Appendix 3 for more information.

**Vegetation management:** 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 Noncombustible Zone and Priority Zones 1, 2 and 3. Refer to the [FireSmart Guide to Landscaping](#).

## 6. Eligible & Ineligible Costs & Activities

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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.

Eligible activities must be cost-effective and primarily located within the applicant's administrative boundary. Refer to Table 1.

**Table 1: Activities Eligible for Funding**

<b>1. EDUCATION</b>
<ul style="list-style-type: none"><li>• Develop and/or promote local FireSmart educational activities and tools. Refer to <a href="#">BC FireSmart Resources</a> for FireSmart materials that are currently available.</li><li>• Develop and/or promote education for the reduction of human-caused fires</li><li>• Encourage active participation in Wildfire Community Preparedness Day</li><li>• Organize and host a community FireSmart day, FireSmart events and workshops, and wildfire season open houses</li><li>• Support neighbourhoods to apply for <a href="#">FireSmart Canada Community Recognition</a></li></ul>
<b>2. PLANNING</b>
<ul style="list-style-type: none"><li>• Develop plans that include assessment and identification of FireSmart and/or fuel management priorities, guided by the 2018 CWPP template<sup>4</sup></li><li>• Update existing plans that are less than 5 years old (for recently acquired land, areas of new development, etc.)</li><li>• Develop FireSmart policies and practices for the design and maintenance of First Nations land or publicly owned land, such as parks and open spaces</li><li>• Develop FireSmart policies and practices for the design and maintenance of First Nation owned buildings and publicly owned buildings</li><li>• Conduct site visits and <a href="#">FireSmart assessments</a> for First Nation owned buildings, publicly owned buildings or publicly, provincially and First Nations owned critical infrastructure in order to support <u>future</u> FireSmart demonstration projects</li></ul>
<b>3. DEVELOPMENT CONSIDERATIONS</b>
<ul style="list-style-type: none"><li>• Amend Official Community Plans, Comprehensive Community Plans and/or land use, engineering and public works bylaws to incorporate FireSmart principles</li><li>• Revise landscaping requirements in zoning and development permit documents to require fire resistant landscaping</li><li>• Establish Development Permit Areas for Wildfire Hazard in order to establish requirements for the exterior design and finish of buildings<sup>5</sup></li><li>• 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)</li><li>• Amend referral processes for new developments to ensure multiple departments, including the fire department and/or emergency management personnel, are included</li></ul>

<sup>4</sup> To support the CRI program and its alignment with the seven FireSmart disciplines, the Community Wildfire Protection Plan (CWPP) process is undergoing a review to ensure that it supports communities and incorporates the most recent learnings from interface fires, community wildfire planning and the role of reducing structure ignitability, both in Canada and in the US. The new [community wildfire resiliency planning framework](#) is expected to be implemented by spring 2020 and will replace the current CWPP process, however existing and current (up to 5 years) CWPPs will still be considered valid.

<sup>5</sup> 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.

<b>4. INTERAGENCY CO-OPERATION</b>
<ul style="list-style-type: none"> <li>• Develop and/or participate in <a href="#">Regional FireSmart committees</a></li> <li>• Participate in multi-agency fire and/or fuel management tables</li> </ul>
<b>5. EMERGENCY PLANNING</b>
<ul style="list-style-type: none"> <li>• Develop and/or participate in cross-jurisdictional meetings and tabletop exercises, including seasonal wildfire readiness meetings</li> <li>• Review structural protection capacity (i.e. assessment of community water delivery ability, structure protection inventory)</li> </ul>
<b>6. CROSS TRAINING</b>
<ul style="list-style-type: none"> <li>• Provide or attend training for <a href="#">Local FireSmart Representatives, Home Partners, FireSmart 101, and Community Champions</a></li> <li>• Cross-train <u>fire department members</u> to include structural fire and interface wildfire training. The following are the <u>only</u> courses eligible for funding: <ul style="list-style-type: none"> <li>○ S-100 Basic fire suppression and safety</li> <li>○ S-185 Fire entrapment avoidance and safety</li> <li>○ ICS-100 (volunteer fire departments only)</li> </ul> </li> <li>• Cross-train <u>emergency management personnel</u>: <ul style="list-style-type: none"> <li>○ ICS-100</li> <li>○ Professional development to increase capacity for FireSmart activities</li> </ul> </li> </ul>
<b>7. FIRESMART DEMONSTRATION PROJECTS</b>
<p><i>To be eligible for funding, all FireSmart Demonstration Projects must have a completed FireSmart assessment <u>at the time of application submission</u> and include a community education component</i></p>
<ul style="list-style-type: none"> <li>• FireSmart Demonstration Projects for First Nations owned buildings or publicly owned buildings must be for buildings designated for emergency response, such as an Emergency Operations Centre or Emergency Support Services facility (i.e. reception centre, group lodging) and may include: <ul style="list-style-type: none"> <li>○ Replacing building materials (i.e. siding or roofing) with fire-resistant materials</li> <li>○ Undertaking vegetation management to remove, reduce, or convert flammable plants in order to create more fire-resistant areas outlined in the <a href="#">FireSmart Guide to Landscaping</a></li> </ul> </li> <li>• FireSmart Demonstration Projects for publicly, provincially and First Nations owned critical infrastructure may include: <ul style="list-style-type: none"> <li>○ Undertaking vegetation management to remove, reduce, or convert flammable plants in order to create more fire-resistant areas outlined in the <a href="#">FireSmart Guide to Landscaping</a></li> </ul> </li> </ul>
<b>8. FIRESMART ACTIVITIES FOR RESIDENTIAL AREAS</b>
<p><i>To be eligible for funding, all FireSmart activities for residential areas must be located in FireSmart Noncombustible Zone and Priority Zones 1, 2 and 3</i></p>
<ul style="list-style-type: none"> <li>• Develop plans for residential areas (only with residential property and/or home owners' consent)</li> </ul>

- Develop FireSmart Community Plans for specific areas
- Conduct [FireSmart assessments](#)
- Undertake [Community Wildfire Hazard Assessments](#) for neighbourhoods pursuing FireSmart Canada Community 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

*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 Noncombustible Zone and Priority Zones 1, 2 and 3*

- Undertake fuel management on publicly owned land or First Nation lands. This is limited to:
  - Fuel management prescriptions consistent with [BC Wildfire Service 2019 Fuel Management Prescription Guidance document](#)
  - New fuel management treatments or maintenance activities, including activities on grasslands
  - Prescribed burns primarily for fuel management objectives that follow the [provincial requirements for planning a burn](#) and utilize the burn plan template

## 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:

- Consultant costs
- Incremental applicant staff and administration 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 of tools (e.g. hand saws, loppers) or structural protection equipment (e.g. hoses, sprinklers)
- For fuel management activities only:
  - Purchase of machinery, equipment and/or livestock for grazing
  - Work undertaken by FLNRORD
  - Any third party requirements to address hazard abatement under the *Wildfire Act*
  - Activities without fuel management objectives



## 7. Grant Maximum

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Eligible applicants with a lower risk of wildfire can apply for 100% of the cost of eligible activities to a maximum of \$25,000. Eligible applicants with a demonstrated higher risk of wildfire 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.

Applications that include fuel management on Provincial Crown land, primarily within administrative boundaries and including contiguous, logical treatment units that extend onto the Crown land base, may exceed the funding maximum for fuel management activities only. Opportunities for fuel management located exclusively on Provincial Crown land, outside of municipal boundaries or First Nation lands, should be discussed with a BCWS Wildfire Prevention Officer.

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

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### Application Deadline

The application deadline is October 18, 2019. Applicants will be advised of the status of their applications by February 7, 2020.

### 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 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.

All applications should be submitted to:

Local Government Program Services, Union of BC Municipalities

E-mail: [cri-swpi@ubcm.ca](mailto:cri-swpi@ubcm.ca)

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

### Review of Applications

UBCM and FLNRORD 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, a technical review 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 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 assessments that show wildfire threat in proximity to values at risk within and around the community
  - Demonstrated history of 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
- 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 technical review 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**

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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 Technical Review 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. Final Report Requirements & Process

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

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

### Submission of Final Reports

All final reports should be submitted to:

Local Government Program Services, Union of BC Municipalities

E-mail: [cri-swpi@ubcm.ca](mailto: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, FESBC 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

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

## Appendix 1: Risk Framework & Risk Class Maps

### The 2019 PSTA and WUI Risk Class Maps will be available in July 2019

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.

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 are used to support this requirement and applicants must locate their general area of interest on the [Wildland Urban Interface Risk Class Maps](#) in order to determine their wildfire risk class.

In cases where the 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.

### 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 wildland urban interface (WUI). Quantification of wildfire threat components, including likelihood (fire occurrence) and severity (98th percentile weather conditions and fuel type) 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.

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 wildland urban interface (WUI) for fire and risk management planning purposes. It identifies the zone of transition

between unoccupied land and human development. Initially, a 2 km buffer distance is then applied to represent a reasonable distance that embers can travel from a wildfire to ignite a structure.

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, municipality, Treaty Settlement lands and/or First Nations reserves) that are linked by the continuation 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 exists 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 km 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 allocated 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 Protection 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 also 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 in FireSmart Noncombustible 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 either a:
  - [FireSmart Home Assessment](#) 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 - Planning for funding eligibility), or
  - FireSmart Home Partners Assessor conduct a Home Ignition Zone Assessment of their property (required form is available from a qualified FireSmart Home Partners Assessor).
- Qualified Local FireSmart Representatives or FireSmart Home Partners Assessors must use the FireSmart Assessment Work Hours Estimate form to outline mitigation recommendations to the residential property or home owner.
- Only activities that are recommended in the completed assessment and that are identified in Table 2, are eligible for the rebate.

Table 2: Activities Eligible for Local Rebate Programs	
RESIDENTIAL BUILDINGS	
1. Roofing	<ul style="list-style-type: none"><li>• Installation of Class A UL/ASTM fire rated roofing (metal, clay tile, asphalt shingles)</li><li>• Installation of non-combustible gutters</li><li>• Removal of needles, leaves and other combustible materials (e.g. overhanging branches)</li><li>• Installation of closed eaves and vents with 3 mm (1/8") screening or ASTM ember resistant rated vents</li></ul>

2. Siding	<ul style="list-style-type: none"> <li>• Installation of ignition resistant (fibre cement board, log) or non-combustible (stucco, metals, brick/stone)</li> <li>• Correction of all gaps, cracks, missing siding or holes where embers could accumulate, lodge or penetrate</li> <li>• Create 15 cm ground-to-siding non-combustible clearance</li> </ul>
3. Windows & Doors	<ul style="list-style-type: none"> <li>• Installation of tempered glass in all doors and windows</li> <li>• Installation of multi pane glass small/medium and treated in all windows and doors</li> <li>• Correction of gaps in doors (including garage doors) where embers could accumulate, lodge or penetrate</li> </ul>
4. Balcony, deck, porch or open foundation	<ul style="list-style-type: none"> <li>• Ensure that there are no gaps or cracks where embers could accumulate, lodge or penetrate</li> <li>• Removal of combustible debris under balcony, deck, porch or open foundation</li> <li>• Deck is constructed out of heavy timbre, non-combustible or fire-rated construction with non-combustible surface</li> </ul>
<b>YARD / NON-COMBUSTIBLE ZONE (0 TO 1.5 METRES)</b>	
5. 1.5 metres from furthest extent of home	<ul style="list-style-type: none"> <li>• Ensure only non-combustible surfaces present</li> <li>• Removal of combustible debris, materials, fences or plants that are present</li> </ul>
<b>YARD / ZONE 1 (1.5 TO 10 METRES)</b>	
6. Woodpiles	<ul style="list-style-type: none"> <li>• Relocate woodpiles more than 10 metres from home</li> </ul>
7. Unmitigated outbuildings	<ul style="list-style-type: none"> <li>• Relocate outbuildings more than 15 metres (50 feet) from home</li> </ul>
8. Trees	<ul style="list-style-type: none"> <li>• Replacement or removal of mixedwood and/or conifer species</li> </ul>
9. Surface vegetation	<ul style="list-style-type: none"> <li>• Ensure a well-maintained lawn (15 cm or shorter, low flammability, low growing discontinuous plants)</li> <li>• Removal of flammable plants, continuous plants or tall growing plants</li> <li>• Removal of twigs, branches, logs and accumulations of tree needles or leaves and other combustible materials</li> </ul>
<b>YARD / ZONE 2 (10 TO 30 METRES)</b>	
10. Forest	<ul style="list-style-type: none"> <li>• Planting of healthy and properly spaced deciduous</li> <li>• Replacement or thinning of mixedwood (both deciduous and conifer)</li> <li>• Creation of separated and thinned conifers (if present)</li> </ul>
11. Surface vegetation	<ul style="list-style-type: none"> <li>• Removal of surface vegetation within 10-30 metres</li> <li>• Removal or proper spacing of flammable shrubs within 10-30 metres</li> <li>• Removal of low tree branches within 2 metres of the ground</li> </ul>



## Appendix 3 – Funding Requirements for Fuel Management Activities

### Fuel Management Activities

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.

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 Noncombustible Zone and Priority Zones 1, 2 and 3. This 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 load and reduce the potential for devastating wildfires.

[Prescribed burns](#) primarily for fuel management objectives are eligible for funding.

Maintenance treatments (generally for areas that have had fuel management treatments in the last 5 years) are eligible for funding. It is expected that maintenance treatments will have lower costs. Applicants should discuss any proposed maintenance activities with a 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.

### Phased Projects

Applicants can apply for fuel management projects that include prescription or burn plan development and fuel management treatment 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.

Table 3: Eligible Fuel Management Activities	
Fuel Management Prescriptions/Burn Plans	Fuel Management Treatment
Activities related to prescription or burn plan development and any required assessments (e.g. geotechnical, archaeological) or wildfire modelling	Pre-treatment activities: activities required to obtain authorizations, danger tree assessments, notification to First Nations and stakeholders and public engagement costs
<a href="#">Information sharing with First Nations</a> , as required by the Land Manager	Treatments: pruning, thinning, tree falling, brushing, grazing, debris management and/or prescribed fire
Site evaluation, including field reconnaissance, threat plots and data collection, and the evaluation of site access	Post-treatment activities: completion of threat assessments (only for local government and First Nations land), signage
Lay out and traversing of proposed areas for treatments	Preparation of all final report requirements, including maps, spatial data and metadata
Preparation of all final report requirements, including maps, spatial data and metadata	

## Application Requirements

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

- Worksheet 2: Proposed Fuel Management Activities and all required attachments
- PDF map, at appropriate scale, outlining the area of interest, proposed treatments units, land status and tenure overlaps
- Current, acceptable wildfire threat assessment documentation and rationale for the proposed treatment unit(s)
- For fuel management treatments only:
  - Completed prescription and/or burn plan
  - Project boundary spatial layer as defined in Section I of Appendix 4

## Interim Report Requirements for Phased Projects Only

For projects that include prescription/burn plan development and fuel management treatment for the same treatment unit(s):

- The completed prescription/burn plan must be reviewed and supported by a BCWS Wildfire Prevention Officer or FNESS Fuel Management Liaison/Specialist prior to initiation of the fuel management treatment.
- 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/burn plan phase, a copy of the information required by the land manager for authorizations is required to be submitted to UBCM at that time. Otherwise, this information is required to be submitted as part of the final report.

## Final Report Requirements

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

Table 4: Fuel Management Final Report Requirements	
Fuel Management Prescriptions/Burn Plans	Fuel Management Treatments
Copy of the fuel management prescription that is signed and sealed by a Registered Forest Professional including all ancillary assessments (e.g. terrain stability).	Post-treatment wildfire threat assessments
PDF maps, at appropriate scale, as identified in Appendix 4	PDF maps, at appropriate scale, as identified in Appendix 4

<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>Provincial Crown land: Treatments will be required to be entered into RESULTS. Please refer to the <i>“RESULTS Information Submission Specifications: Government Funded Activities”</i> document found in the <a href="#">“Submission Specifications Data Requirements”</a> section.</p> <p>Local government or First Nations land (i.e. non-Provincial Crown land): Spatial data is required, as identified in Appendix 4</p>
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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 and fuel management activities.

### A. Summary of Map & Spatial Data Requirements

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

### B. Mandatory Requirements for All Maps

- Descriptive title
- Scale (as text or scale bar)
- North arrow
- Legend
- SWPI Project number and proponent 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 CWPPs

#### MAP 1: Area of Interest (AOI) and VAR

- CWPP AOI
- Land ownership and administrative boundaries (Municipal, Federal, Private, Parks, Crown etc.)
- Relevant tenures such as range, woodlots, community forests, Tree Farm
- Fire Department Boundaries
- Proposed or completed fuel treatments
- Optional: 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

2017 Wildfire Threat Assessment Guide	2012 Wildfire Threat Assessment Guide
<ul style="list-style-type: none"><li>• CWPP AOI</li><li>• Local Wildfire Risk Polygons</li><li>• Fuel Assessment Plots</li><li>• WUI Zones (if applicable)</li><li>• Hectares of each Local Wildfire Risk Class must be stated on the map in a table</li></ul>	<ul style="list-style-type: none"><li>• CWPP AOI</li><li>• Wildfire Behaviour Threat Class</li><li>• WUI Threat Class</li><li>• Threat Plots</li><li>• Hectares of each Wildfire Behaviour Threat Class and WUI Threat Classes must be stated on the map in a table.</li></ul>

## MAP 3: Proposed Fuel Treatment Units

- CWPP AOI
- Land Status and tenure overlaps e.g. range, woodlots etc.
- Proposed fuel treatment units
- Previously completed treatments (labelled by year)
- Hectares of Proposed Fuel Treatments in a table on map (PROPOSED\_TREATMENT\_ID, AREAHA)
- Relevant Threat plot locations / labelled by PLOT\_NUMBER

### 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 PROPOSED\_TREATMENT\_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
- Relevant Threat plot locations / 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 PROPOSED\_TREATMENT\_ID)
- Stand treatment and debris management activity summary by hectares of treatment unit in a table on the map
- Previously completed treatments if applicable (labelled by year)
- Relevant Threat plot locations / labelled by PLOT\_NUMBER

## F. Spatial Data Requirements

The Province of BC uses ArcGIS 10.3 and all spatial data submissions must be compatible with ArcGIS 10.3. 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 individual project sections. 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\_CWPPNorthPG.gdb

PrinceGeorge\_CWPPNorthPG\_LocaData.gdb

PrinceGeorge\_CWPPNorthPG.KMZ

FN699\_CWPPNorthPG.gdb

FN699\_CWPPNorthPG\_LocalData.gdb

FN699\_CWPPNorthPG.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, referenced in the CWPP template, which are not defined in this program guide. The metadata standard is FGDC and is required to be submitted in .xml format. Metadata must document the following:
  - A description of what each dataset represents for all datasets provided in addition to what is outlined in the individual project sections.
  - 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.
  - Data Source information including where the data came from, the currency of the information and source contact details for potential follow-up
  - 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 CWPP submissions:**

- All spatial layers in addition to those identified in this guide, that are a key component of the CWPP 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 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.

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.

## G. Specific Submission Requirements by Project Type - Community Wildfire Protection Plan

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
AOI	YES	CWPP 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
FUEL_TYPE	YES	Fuel Type	FUEL_TYPE	Fuel Type. See Table 2	Text, 15
			CROWN_BASE_HEIGHT	Crown base (CBH) height for C-6 Fuel type	Double
			PERCENT_CONIFER	Percent conifer (PC) for M-1/M-2 Fuel types	Short integer
			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
			AREAHA	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
			AREAHA	Area in hectares	Double

## H. Threat Plot Submissions

If using the 2017 Wildfire Threat Assessment Guide the following layers are also required:

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
FUEL_ASSESSMENT_PLOT	YES	Field fuel assessment plot locations to confirm site level fuel stratum of a fuel type	PLOT_NUMBER	Plot number corresponding to Fuel Assessment Worksheet	Text, 7
			ECOPROVINCE_CODE	Ecoprovince. See Table 3	Text, 5
			FUEL_ASSESSMENT_RATING	Site level Fuel Assessment Rating. See Table 4	Text, 10
			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
WILDFIRE_RISK	YES	Dataset indicating area and risk class as described in CWPP Template	WILDFIRE_RISK_CLASS	Wildfire Risk Class See Table 5	Text, 10
			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

If using the 2012 Wildfire Threat Assessment Guide the following layers are also required:

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
FIRE_THREAT	YES	Dataset indicating area and threat class as described in current Threat Rating Guide	FIRE_BEHAVIOUR_THREAT_CLASS	Wildfire behaviour threat class based on definitions in current Threat Rating Guide. See Table 6	Text, 10
			WUI_THREAT_CLASS	WUI threat class based on the definitions in of current Threat Rating Guide. See Table 7	Text, 10
			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

<b>THREAT_PLOT</b>	YES	Ground truthed threat plot locations to confirm fire threat	PLOT_NUMBER	Plot number corresponding to Wildfire Threat Worksheet	Text, 7
			THREAT_PLOT_QUALIFIER	Qualifier to indicate whether the threat assessment plot was done before or after the fuel treatments were completed. See Table 8	Text, 5
			FIRE_BEHAVIOUR_THREAT_CLASS	Wildfire behaviour threat class based on definitions in current Threat Rating Guide. See Table 2	Text, 10
			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

#### I. Specific Submission Requirements for Fuel Management (Follow Threat Plots Guidance Above for Threat Plots)

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
PRESC OR OP_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

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
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 9	Text, 20
			STAND_TREATMENT_METHOD	Method used to perform treatment activity. See Table 9	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 10	Text, 20
			DEBRIS_MGMT_METHOD	Method used to perform debris management activity. See Table 10	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)
			DATA_COLLECTION_METHOD	Method of spatial data collection (ex. GPS, digitized, etc.). See Table 1	Text, 45
			AREAHA	Area in hectares	Double

## J. 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: Ecoprovinces**

<b>ECOPROVINCE_CODE</b>	<b>DESCRIPTION</b>
SAL	Southern Alaska Mountains
NBM	Northern Boreal Mountains
TAP	Taiga Plains
BOP	Boreal Plains
SBI	Sub-Boreal Interior
SIM	Southern Interior Mountains
SOI	Southern Interior
COM	Coast And Mountains
GED	Georgia Depression
NEP	Northeast Pacific
CEI	Central Interior

**Table 4: Site Level Fuel Assessment Rating**

<b>FUEL_ASSESSMENT_RATING</b>	<b>DESCRIPTION</b>
Low	Fires may start and spread slowly. There will be minimal involvement of deeper fuel layers or larger fuels.
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.
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.
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.

**Table 5: Wildfire Risk Class**

<b>WILDFIRE_RISK_CLASS</b>	<b>DESCRIPTION</b>
NO DATA	No data private land
No Risk	The combination of the local fuel hazard (usually PSTA Class 0 or 1), weather influences, topography, proximity to the community, fuel (non-fuel) position in relation to fire spread patterns, and known local wildfire threat factors make it a no risk for threatening a community. These areas are non-fuel or sparsely vegetated and will not support spreading fires, and any patches of vegetation will usually self-extinguished. Low to no risk to any values at risk.
Low	The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns, and known local wildfire threat factors make it a lower potential for threatening a community. These stands will support surface fires, single tree or small groups of conifer trees could torch/ candle in extreme fire weather conditions. Fuel type spot potential is very low, low risk to any values at risk.
Moderate	The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns and known local wildfire threat factors make it possible that a wildfire in this area would threaten the community. Areas of matted grass, slash, conifer plantations, mature conifer stands with very high crown base height, and deciduous stands with 26 to 49% conifers. These stands will support surface fires, single tree or small groups of conifer trees could torch/ candle. Rates of spread would average between 2-5 meters/ minute. Forest stands would have potential to impact values in extreme weather conditions. Fuel type spot potential is unlikely to impact values at a long distance (<400m).
High	The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns, and known local wildfire threat factors make it likely that a wildfire in this area would threaten the community. This includes stands with continuous surface/ crown fuel that will support regular torching/ candling, intermittent crown and/or continuous crown fires. Rates of spread would average 6 -10 meters/ minute. Fuel type spot potential is likely to impact values at a long distance (400 -1 000m).
Extreme	The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns, and known local wildfire threat factors make it very likely that a wildfire in this area would threaten the community. Stands with continuous surface/ crown fuel and fuel characteristics that tend to support the development of intermittent or continuous crown fires. Rates of spread would average >10 meters/ minute. Fuel type spot potential is probable to impact values at a long distance (400 -1 000m or greater). These forest stands have the greater potential to produce extreme fire behaviour (long range spotting, fire whirls and other fire behaviour phenomena)

**Table 6: Wildfire Behaviour Threat Class**

<b>FIRE_BEHAVIOUR_THREAT_CLASS</b>	<b>DESCRIPTION</b>
NO DATA	No data private land
Very Low	These are lakes and water bodies that do not have any forest or grassland fuels. These areas cannot pose a wildfire threat and are not assessed.
Low	This is developed and undeveloped land that will not support significant wildfire spread.
Moderate	This is developed and undeveloped land that will support surface fires only. Homes and structures could be threatened.
High	Landscapes or stands that: <ul style="list-style-type: none"> <li>• are forested with continuous surface fuels that will support regular candling, intermittent crown and/or continuous crown fires;</li> <li>• often include steeper slopes, rough or broken terrain with generally southerly and/or westerly aspects;</li> <li>• can include a high incidence of dead and downed conifers;</li> <li>• are areas where fuel modification does not meet an established standard.</li> </ul>
Extreme	Consists of forested land with continuous surface fuels that will support intermittent or continuous crown fires. Polygons may also consist of continuous surface and coniferous crown fuels. The area is often one of steep slopes, difficult terrain and usually a southerly or westerly aspect.

**Table 7: Wildfire Threat Class**

<b>WUI_THREAT_CLASS</b>	<b>DESCRIPTION</b>
NO DATA	No data private land
NA	Wildfire behaviour threat class is not high or extreme.
Low	High or extreme wildfire behaviour threat class polygon is sufficiently distant from any development to not to have a direct impact on the community. The polygon is likely over two kilometers from any development.
Moderate	High or extreme wildfire behaviour threat class polygon is sufficiently distant from any development to not to have a direct impact on the community. The polygon is likely over five hundred meters from any development.
High	High or extreme wildfire behaviour threat class polygon is sufficiently distant from any development to not to have a direct impact on the community. The polygon is within 500 meters kilometers from a community or development.
Extreme	High or extreme wildfire behaviour threat class polygon is sufficiently distant from any development to not to have a direct impact on the community. The polygon is adjacent to a community or development.

**Table 8: Threat Plot Qualifier**

<b>THREAT_PLOT_QUALIFIER</b>	<b>DESCRIPTION</b>
PRE	The threat assessment plot was completed prior to the fuel treatments.
POST	The threat assessment plot was completed after the fuel treatments were finished.

**Table 9: 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 10: Debris Management Technique:**

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