

Strategic Wildfire Prevention Initiative

Operational Fuel Treatment & Maintenance Program

2017 Program & Application Guide (Update)

1. Introduction

The [Strategic Wildfire Prevention Initiative](#) (SWPI) is a suite of funding programs managed through the Strategic Wildfire Prevention Working Group – including the First Nations' Emergency Services Society (FNESS), Ministry of Forests, Lands & Natural Resource Operations (MFLNRO) and the Union of BC Municipalities (UBCM). Funding is provided by the Province of BC and is administered by UBCM.

The initiative supports communities to mitigate risk from wildfire in the wildland urban interface.

The wildland urban interface (WUI) is any area where combustible wildland fuels (vegetation) are found adjacent to homes, farm structures, other outbuildings or infrastructure. For the purpose of the SWPI, the WUI is the area within 2 kilometres of a community with a minimum density of 6 structures per square kilometre.

The Strategic Wildfire Prevention Initiative includes the following funding streams:

- Development or update of Community Wildfire Protection Plans (CWPP)
- Development of fuel management prescriptions
- Operational fuel treatments, including maintenance treatments
- Fuel management demonstration projects
- SWPI FireSmart Planning grants

Operational Fuel Treatment Program

Operational fuel management is defined as the process of changing forest fuel to reduce aggressive fire behaviour. This may include treatments such as thinning, spacing and pruning trees, and removal of needles and woody debris from the forest floor. The intent is to reduce fuel load in the forest and reduce the potential for devastating wildfires.

The Operational Fuel Treatment program assists local governments and First Nations to undertake operational fuel treatments that are set out in a prescription for areas identified as priorities in the CWPP. The primary objective of the program is to maximize the number of hectares treated in areas that pose the greatest risk of wildfire to communities.

2. Eligible Applicants

All local governments (municipalities and regional districts) and First Nations in BC are eligible to apply.

3. Eligible Projects

In order to qualify for funding, local government applicants must consult with the MFLNRO Fuel Management Specialist, and First Nations applicants with a FNESS Fuel Management Liaison/Specialist, regarding the proposed project prior to submitting an application. This should include discussions of the status of prescription(s), recent activities on the landbase, consultation with the land manager (e.g. MFLNRO resource district or BC Parks) and Ministry plans.

In addition, to qualify for funding, an operational fuel treatment must be:

- A new project (retroactive funding is not available)
- For areas identified as a priority in a completed, current CWPP¹ (as defined in the current CWPP Program & Application Guide) or priority areas identified in a Ministry plan if approved in advance by the MFLNRO Fuel Management Specialist.
- Supported by a completed fuel management prescription (as defined in the current Fuel Management Prescription Program & Application Guide). If SWPI funded, the complete prescription final report must be submitted and approved by the Strategic Wildfire Prevention Working Group prior to submission of the operational application.
- Located in/on:
 - Areas within the WUI (*Updated March 2017* - see Joint Funding section below for projects that include areas inside and outside of the WUI)
 - Crown land, land owned by the local government or, if supported by the Fuel Management Specialist or Liaison, land that is owned by a public institution
- Areas identified as high or extreme Wildfire Risk Class as determined by the Local Wildfire Threat Rating and associated risk factors in a CWPP completed under the 2017 program. If threat assessments were completed prior to 2017, areas identified as extreme or high Wildfire Behaviour Threat Class and extreme or high WUI Threat Class, determined by the 2012 WUI Wildfire Threat Assessments guide.
- Areas not identified above, but that link eligible areas for a logical fuel treatment unit, may be considered for funding if supported by an appropriate rationale and approved by the Fuel Management Specialist or Liaison.
- Capable of completion by the applicant within two years from the date of grant approval

Maintenance Treatments

Applications to perform maintenance must be submitted on separate application forms from applications to treat new areas.

Applications for maintenance treatments will be considered for funding in areas where previous fuel treatments have been completed and there is clear evidence of the need for maintenance (e.g. fuel load increases, blow down event, understory recruitment)

All applications for maintenance treatments require a clear written rationale on the need for maintenance and must be supported by a fuel management prescription.

All final report requirements, including spatial data, are required to be met for maintenance treatments.

¹ Generally speaking, CWPPs should be reviewed every five years to ensure the plan is in alignment with the current PSTA, development, completed fuel treatments and FireSmart activities.

Joint Funding with Forest Enhancement Society of BC

Applications for joint funding must be submitted on separate application forms

Updated March 2017 - Starting in April 2017, eligible applicants may apply through SWPI to access joint funding from the Forest Enhancement Society of BC (FESBC).

To be eligible for joint funding, projects must be on Crown land and the applicant must commit to tendering the project. In addition, proposed eligible projects within the WUI that have a high degree of collaboration/support or partnerships with other entities will have a greater likelihood of consideration for joint funding.

Funding permitting, joint funding is only available under the following circumstances:

- Where an eligible applicant is actively engaged in SWPI and proposes an eligible project within the WUI that exceeds the annual SWPI funding limits, joint funding will be considered as follows: eligible costs up to the annual funding maximum (SWPI funding) and eligible costs that exceed the SWPI funding maximum (FESBC funding).
- Where a proposed eligible project involves an operationally logical treatment inside the WUI and outside the WUI on adjacent Crown land, joint funding will be considered for both the WUI portions of the project (SWPI funding) and the non-WUI portions of the project, including the development of prescriptions for non-WUI areas (FESBC funding).
- Where an eligible applicant can demonstrate that an eligible project within the WUI in an unincorporated area within a regional district cannot be treated due to fiscal constraints related to service area requirements and the required 10% community contribution, joint funding will be considered for the project as follows: 90% of eligible project costs (SWPI funding) and 10% of eligible project costs (FESBC funding)

Please note: Applicants that received funding through SWPI from 2004-2014 are required to submit any outstanding reporting prior to 2017 applications being considered.

4. Eligible & Ineligible Costs & Activities

Eligible Costs & Activities

For all projects, eligible costs are direct costs that are approved by the SWPI 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 (unless specified below).

Under the Operational Fuel Treatment program, eligible activities must be cost-effective and meet specific fuel management objectives:

- *Updated March 2017* - For jointly funded projects, the development or amendment of a fuel management prescription for the non-WUI portion of the project only. New prescriptions must be completed on the SWPI prescription template. All prescriptions must meet the standards outlined in the SWPI Fuel Management Prescription Program & Application Guide and will be reviewed as part of the technical review of the operational treatment application. *Please note this activity may take place before the application is submitted provided it is conducted within 12 months of application submission.*
- Consultation with the Fuel Management Specialist or Liaison, land manager (e.g. MFLNRO resource district or BC Parks), forest tenure holders, other local governments, or other stakeholders regarding the proposed project. *Please note this activity may take place before the application is submitted provided it is conducted within 12 months of application submission.*

- Eligible fuel treatment activities, including the following stand treatment and debris management techniques, may include:
 - Prescribed fire, including broadcast burning and pile burning
 - Pruning
 - Tree felling
 - Thinning
 - Brushing
 - Grazing
 - Tree planting for species conversion
 - Piling
 - Debris management, including lop and scatter, chipping, mastication and grinding
 - Debris removal, including chip removal, hog fuel removal and slash removal
 - Tree removal, including sawlog, firewood and other products
- Grass seeding
- Development of a Burn Plan(s) and/or Custom Venting Forecast
- Danger tree assessments
- Updates to existing threat plots and related spatial data to conform to the current Wildfire Threat Assessment worksheets. Every polygon considered for treatment as part of an operational project must contain a threat plot.
- Preparation of maps, spatial data and metadata (See Appendix 2 for mapping requirements and spatial data requirements)
- Notifications of operational fuel treatment commencement to First Nations and tenure holders
- Staff and contractor costs directly related to operational fuel treatment activities
- Applicant administration costs directly related to operational fuel treatment activities
- Post-treatment signage and public information costs directly related to completed operational fuel treatment activities

Updates to Existing Fuel Management Prescriptions (WUI areas only)

Generally speaking, updates to existing prescriptions should be submitted as applications under the Fuel Management Prescription funding stream and the completed prescription must be approved before submitting an operational application.

However, updates to existing fuel management prescriptions may be considered for funding as part of the operational treatment application in cases where the technical review of a proposed operational treatment application indicates the need to update the existing prescription due to significant mitigating factors since the completion of the prescription.

The following conditions will apply:

- The cost of updating the prescription will be funded at 75% of the cost of eligible activities and the remainder (25%) is required to be funded through community contributions.
- The process of updating must meet the requirements of the current Fuel Management Prescription Program & Application Guide
- The operational treatment application will remain pending until the final report for the updated prescription has been submitted and approved by the Strategic Wildfire Prevention Working Group
- The updated prescription must be completed within six months or the pending operational treatment application will be closed

Ineligible Costs & Activities

Any activity that is not outlined above or is not directly connected to activities approved in the application by the SWPI Evaluation Committee is not eligible for grant funding or as the community contribution.

This includes:

- Development of funding application package
- Emergency plans or related activities
- CWPPs or new prescriptions
- Ongoing public information
- Local fire department training
- Publication reviews or research
- Purchase of machinery, equipment and/or livestock for grazing
- Activities on private land, land outside the WUI (unless jointly funded) or land that is scheduled for development
- Activities for purposes other than fuel treatment (e.g. recreational trails without fuel management objectives)
- Staff training costs, including safety and first-aid training
- Other wildfire risk mitigation activities (e.g. FireSmart activities)
- Work undertaken by the Ministry of Forests, Lands & Natural Resource Operations
- Any third party requirements (tenure holders) to address hazard abatement under the *Wildfire Act*.

5. Grant Maximum

Generally speaking, the Operational Fuel Treatment program can contribute a maximum of 90% of the cost of eligible activities up to \$400,000 in funding per municipality or First Nation per calendar year, and up to \$600,000 in funding per regional district per calendar year. The remainder (10%) is required to be funded through community contributions.

Updated March 2017 - Applications for joint funding with FESBC may allow funding in excess of the maximums outlined above or alter the required community contributions. Refer to Section 3 for more information.

In order to ensure transparency and accountability in the expenditure of public funds, all revenue (e.g. log sales, sale of other forest products, etc.) from the project and all other grant contributions for eligible portions of the project must be declared and, depending on the total value, may decrease the value of the grant.

See Appendix 1 for important information on community contributions, revenues and other grant contributions.

6. Application Requirements & Process

Application Deadlines

Updated March 2017 - Applications for operational treatments can be submitted at any time; however, funding permitting, applications will only be reviewed three times in 2017. Applicants will be advised of the status of their application within 60 days of the following application deadlines:

- January 27, 2017
- April 28, 2017
- October 6, 2017

Required Application Contents

- Completed Application Form
- Local government Council or Board resolution, or First Nation Band Council resolution, indicating support for the current proposed activities and willingness to provide overall grant management
- A copy of the completed prescription for the proposed treatment area, including all maps. If SWPI funded, the complete prescription final report must be submitted and approved by the

Strategic Wildfire Prevention Working Group prior to submission of the operational treatment application.

- Wildfire Threat Assessment worksheets and threat plot photos completed as per the relevant Wildfire Threat Assessment Guide. Previously submitted threat information does not need to be resubmitted; however reference to the previous submission details must be provided.
- *Updated March 2017* - Copy of email from the land manager (e.g. MFLNRO resource district or BC Parks) confirming First Nations Information Sharing has been completed
- If not SWPI funded, copy of the completed CWPP for the proposed treatment area
- If SWPI funded, the complete CWPP final report must be submitted and approved by the Strategic Wildfire Prevention Working Group prior to submission of the operational treatment application.

Please note: Applications to perform maintenance must be submitted on separate application forms from applications to treat new areas.

Prescription final reports must be submitted and approved prior to submission of operational treatment or demonstration project applications. Generally speaking, the Strategic Wildfire Prevention Working Group requires 60 days to review complete final reports.

Applicants that received funding through SWPI from 2004-2014 are required to submit any outstanding reporting prior to 2017 applications being considered.

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 (from local governments and First Nations) should be submitted to:

Local Government Program Services, Union of BC Municipalities

E-mail: swpi@ubcm.ca

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

Review of Applications

UBCM will perform a preliminary review of applications to ensure the required application elements (identified above) have been submitted and to ensure that basic eligibility criteria have been met. Only complete application packages will be reviewed.

Following this, all eligible applications will be reviewed and scored by Fuel Management Specialists or Liaisons. Scoring considerations and criteria include the following:

- Wildfire Risk or Fire Behaviour/WUI Threat Class for the proposed treatment area
- Priority of and rationale for treatment as identified in completed CWPP or Ministry plans
- Degree to which the proposed fuel treatment is accessible and considers responders for potential suppression opportunities
- Evidence that the land manager (e.g. MFLNRO resource district office or BC Parks) has been consulted and First Nation Information Sharing has been completed
- Community involvement in wildfire risk mitigation in the past 2 years (as described in Sections 5 and 6 of the [2017 CWPP Template](#)), including:
 - Fuel management
 - FireSmart planning and activities
 - Community education
 - Local government wildfire response resources

- Collaboration with land manager (e.g. MFLNRO resource district or BC Parks), neighbouring First Nations and local governments, fire departments, BC Wildfire Service, and local forest industry
- Estimated number of hectares to be treated, cost effectiveness of proposed treatment and proposed project cost per hectare
- Partnerships and leveraging

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.

Updated March 2017 - Following technical review, applications that meet the minimum point value threshold will be considered by the Evaluation Committee and funding decisions will be made on a provincial priority basis. Applications for joint funding with FESBC will also be reviewed by the FESBC.

7. Grant Management & Applicant Responsibilities

Please note that 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. The Strategic Wildfire Prevention Working Group reserves the right to audit these records.

In cases where other grants are used as a community contribution, documentation must be available to demonstrate how actual costs from other grant contributions are accounted for. For example, labour costs must include information on the number of hours worked, the hourly rate, and the eligible activity that was undertaken (e.g. 50 hours at \$18/hr. for chipping). The Strategic Wildfire Prevention Working Group reserves the right to audit these records.

Notice of Funding Decision

All applicants will receive written notice of funding decisions, which will include the terms and conditions of any grant that is awarded.

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

Post Grant Approval Meeting

As a condition of grant approval, all approved applicants are required to meet with the Fuel Management Specialist or Liaison, or designate, to discuss the project prior to commencing work.

Progress Payments

Grants under the Operational Fuel Management 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 Strategic Wildfire Prevention Working Group will be required for any significant variation from the approved project.

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

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

The revised application package will then be reviewed by the Fuel Management Specialist or Liaison and the Evaluation Committee.

Applicants are responsible for any cost 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 two years of approval and all extensions beyond this date must be requested in writing and be approved by the Strategic Wildfire Prevention Working Group. Extensions will not exceed one year.

Consultation with Fuel Management Specialist or Liaison

Applicants must consult with the Fuel Management Specialist or Liaison in a timely manner before and during the operational fuel treatment process. The Fuel Management Specialist or Liaison provides guidance, technical expertise and connections to MFNLRO resource district and fire zone.

This will ensure linkage of the operational treatment to existing or proposed Ministry plans that provide guidance for fuel break development, legal objectives and best practices for management of other resource values. This also assists with the final technical review of the operational treatment and grant payment.

Working with Forest Professionals

Many aspects of fuel management fall under the practice of professional forestry as outlined in the *British Columbia Foresters Act* and the [ABC FP Interim Guidelines – Fire and Fuel Management](#), which includes sections on professional practice and forest professional considerations for fuel management.

Project monitoring and reporting for operational treatments should be undertaken by a qualified forest professional as outlined above. Due to the complex nature of wildfire threat/risk assessment, planning for and implementation of fuel treatments in BC, the BC Wildfire Service has updated and developed a [set of tools](#) to aid in determining the wildfire threat/risk, fuel treatments design, and implementation.

8. Final Report Requirements & Process

Required Final Report Contents

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

- Completed Final Report Form, including signatures by the applicant and Registered Forest Professional

- Post-treatment Wildfire Threat Assessment worksheets and threat plot photos from same location as pre-treatment (application) assessments and photos, completed and labelled as per the relevant Wildfire Threat Assessment Guide.
- Georeferenced PDF maps (See Appendix 2)
- Spatial data, metadata and methodology relating to the project and a spatial data summary (See Appendix 2)

Submission of Final Reports

All final reports (from local governments and First Nations) should be submitted to:

Local Government Program Services, Union of BC Municipalities

E-mail: 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 (identified above) have been submitted.

Following this, all complete final reports will be subject to three approval processes:

- Administrative approval – To ensure expenditures align with the approved budget, review certified costs (including other grant contributions and project revenue) and calculate the total eligible grant
- Technical approval – To ensure the completed project achieved the intent of the approved application and meets the requirements for funding identified in the 2017 Operational Fuel Treatment Program & Application Guide
- Spatial data approval – To ensure the completed spatial data meets the requirements for spatial data identified in the 2017 Operational Fuel Treatment Program & Application Guide

Final grant payment will not be approved until administrative, technical and spatial data approvals are complete.

9. Additional Information

- For more information about the [Strategic Wildfire Prevention Initiative](#):
 - **Local governments:** contact Local Government Program Services at UBCM at (250) 356-2947 or swpi@ubcm.ca
 - **First Nations:** contact Forest Fuel Management Department at FNESS at (250) 377-7600 or ffminfo@fness.bc.ca
- Visit the [BC Wildfire fuel management website](#) for resources and contact information
- The Wildfire Threat Assessment Guide and Worksheets are available on the [SWPI webpage](#).
- [FireSmart Canada](#) provides resources for home and private land owners, industry and governments to lessen the effects of wildfire. Information is also available for the FireSmart Community Recognition Program.

Appendix 1: Community Contributions, Other Grants & Project Revenues

Generally speaking, the Operational Fuel Treatment program can contribute a maximum of 90% of the cost of eligible activities up to \$400,000 in funding per municipality or First Nation per calendar year, and up to \$600,000 in funding per regional district per calendar year. The remainder (10%) is required to be funded through community contributions.

Updated March 2017 - Applications for joint funding with FESBC may allow funding in excess of the maximums outlined above or alter the required community contributions. Refer to Section 3 for more information.

Community Contribution

The required community contribution must be directly related to activities approved in the application by the Strategic Wildfire Prevention Working Group and can be funded from a number of sources, including:

- Cash contribution from the applicant (e.g. general revenue or reserve funds)
- In-kind contribution from the applicant (or project partner) directly related to activities approved in the application by the Strategic Wildfire Prevention Working Group, including:
 - Staff time directly related to operational treatment (e.g. supervision, travel, financial oversight, project management)
 - Use of applicant's meeting space or other resources
 - Applicant's administration of the project
- Cash or other contributions from the community (e.g. volunteer labour or use of equipment, volunteer professional services, cash donation to the project)
- Other grant funding (see below)
- Revenue derived from the project (see below)

Unless otherwise specified, community contributions are eligible from the date of application submission until the final report is submitted. In order to ensure transparency and accountability in the expenditure of public funds, all revenue and other grant contributions for eligible portions of the project must be declared on the Final Report Form.

Revenue Generation

Full-scale, for-profit timber harvesting operations are not eligible under SWPI. However, revenue (e.g. log sales, sale of other forest products, etc.) from eligible projects can constitute all or part of the community contribution.

If revenue exceeds the required community contribution, the excess revenue will be deducted from the total eligible cost of the project and the eligible grant will be calculated based on the net project cost.

Eligible project cost of \$100,000
10% = \$10,000

Revenue of \$25,000
Excess revenue = \$15,000

Net project cost is \$85,000
SWPI Grant (90%) = \$76,500

Other Grant Contributions

Funds from other agencies and/or grant programs (except funds from the Ministry of Forests, Lands & Natural Resource Operations) can constitute all or part of the community contribution.

However, it is important to note that other grant programs may fund some activities that are not eligible under SWPI. Therefore, when accounting for project costs covered by other grant programs, only those activities that are outlined in Section 4 can be included.

Eligible project cost of \$85,000
Max. SWPI 90% = \$76,500

Other grants totaling \$15,000
Excess funding = \$6,500

100% of project cost is \$85,000
SWPI Grant = \$70,000

Documentation must be available to demonstrate how actual costs from other grant contributions are accounted for. For example, labour costs must include information on the number of hours worked, the hourly rate, and the eligible activity that was undertaken (e.g. 50 hours at \$18/hr. for chipping).

Under no circumstances will the SWPI grant result in payment of more than 100% of the eligible project cost (or net project cost in cases where revenue is generated). In cases where eligible portions of other grant funding - combined with the maximum available SWPI grant - are more than 100% of the eligible project cost, the value of the excess funding will be deducted from the SWPI grant.

Appendix 2: Final Report Mapping & Spatial Data Requirements

Applicants are required to submit large format georeferenced PDF maps that clearly represent (at a suitable scale) all of the features being submitted in the spatial datasets and referred to in the final report. The minimum content and maps required for operational treatments are:

- Overview: General overview map of the project boundary in relation to communities and other major features and base data.
- Treatment Units: project boundary, treatment units and all new and existing Threat Class plots, and before/after photo locations. Total net project boundary hectares and individual net treatment unit hectares must be indicated in a table on the map. Treatment Units and Threat Class plots must be labelled with the TREATMENT_UNIT_ID and PLOT_NUMBER, respectively.
- Stand Treatment: Map of project boundary and stand treatment activities, with total net project boundary hectares and individual net stand treatment activity hectares indicated in a table on the map.
- Debris Management: Map of project boundary and debris management activities, with total net project boundary hectares and individual net debris management activity hectares indicated in a table on the map.

Mandatory Map Requirements

- Descriptive title
- Scale (as text or scale bar)
- North arrow
- Legend
- Operational treatment and GIS consultant company name
- Local government name or First Nation band number
- Date

The map should also include reference data such as roads, railways, transmission lines, pipelines, water bodies and rivers/creeks. PDF maps should be compressed to reduce unnecessarily large file sizes.

Spatial Data Requirements

Spatial data for the entire CWPP area must be submitted as part of the final report for all SWPI funded projects. *The Province of BC uses ArcGIS 10.3 and all spatial data submissions must be compatible with ArcGIS 10.3 or lower.*

In addition, some feature layers as identified in the table below, are 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_OTNorthPG.gdb

PrinceGeorge_OTNorthPG_LocaData.gdb

PrinceGeorge_OTNorthPG.KMZ

FN699_OTNorthPG.gdb

FN699_OTNorthPG_LocalData.gdb

- 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:** *Updated March 2017* - Metadata must be provided for all spatial layers, referenced in project deliverables, which are not defined in this program guide. The metadata standard is North American Profile of ISO 19115:2003 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 FGDB compressed into a zip file and KMZ file(s)
- 6. Additional notes about Operational submissions:**
- The Operational project boundary represents the net operational area.
 - One single or multi-part polygon must be submitted for each treatment unit.
 - One single or multi-part polygon must be submitted for each stand treatment type (Distinct stand treatment types may overlap).
 - One single or multi-part polygon must be submitted for each debris management type (Distinct debris management types may overlap).
 - Project boundary, treatment unit, stand treatment technique, debris management technique and spatial hectares must match the hectares stated on the maps and in the final report.
 - Every polygon considered for treatment as part of an operational project must contain a threat plot. Threat plots must conform to the relevant Wildfire Threat Assessment Guide.
 - If more than one data collection method was used, please choose the value that best represents how the information was captured.

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 for Operational Fuel Treatments – Updated March 2017

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
OP_PROJECT_BOUNDARY	YES	A 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
			FUNDING_SOURCE	Funding source (ex. SWPI). See Table 2	Text, 30
			AREAHA	Area in hectares	Double
OP_TREATMENT_UNIT	YES	Operational treatment units	TREATMENT_UNIT_ID	Treatment Unit ID	Text, 10
			POST_FUEL_TYPE	Fuel type of treatment unit prior to operational project. See Table 3	Text, 15
			POST_STEMS_PER_HA	Density of treatment unit after operational project.	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
			FUNDING_SOURCE	Funding source (ex. SWPI). See Table 2	Text, 30
			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 4	Text, 20
			STAND_TREATMENT_METHOD	Method used to perform treatment activity. See Table 4	Text, 20
			STAND_TREATMENT_START_DATE	Date stand treatment activity commenced	Date (DD/MM/YYYY)
			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
			FUNDING_SOURCE	Funding source (ex. SWPI). See Table 2	Text, 30
AREAHA	Area in hectares	Double			

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
OP_DEBRIS_MGMT	YES	Operational debris management area	DEBRIS_MGMT_TECHNIQUE	Broad category of technique used for debris management activity. See Table 5	Text, 20
			DEBRIS_MGMT_METHOD	Method used to perform debris management activity. See Table 5	Text, 20
			DEBRIS_MGMT_START_DATE	Date debris management activity commenced	Date (DD/MM/YYYY)
			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
			FUNDING_SOURCE	Funding source (ex. SWPI). See Table 2	Text, 30
			AREAHA	Area in hectares	Double
THREAT_PLOT (optional – submit only if additional plots were done and using a pre-2017 CWPP)	YES	Field 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 6	Text, 5
			FIRE_BEHAVIOUR_THREAT_CLASS	Wildfire behaviour threat class based on definitions in the 2012 WUI Wildfire Threat Assessments 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
			FUNDING_SOURCE	Funding source (ex. SWPI). See Table 2	Text, 30

Attribute Value Reference Tables – Updated March 2017

Table 1: Data Collection Method

DATA_COLLECTION_METHOD	DESCRIPTION
differentialGPS	Data was captured with a differential GPS unit, or was post-processed with information received from known reference stations, to improve data accuracy.
digitizing	Data was converted from an analog map into a digital format using a digitizing tablet connected to a computer.
GISAnalysis	Data was created as a result of a GIS Analysis.
nondifferentialGPS	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	Data was delineated from an orthophoto (aerial photography).
Photogrammetric	Data was delineated using photographs or images in stereo pairs
satelliteImagery	Data was delineated from a satellite image.
sketchMap	Data was hand sketched, either on an analog map or on-screen.
tightChainTraverse	Data was surveyed with a hand compass and chain to create a closed traverse.

Table 2: Funding Source

FUNDING_SOURCE	DESCRIPTION
SWPI	Strategic Wildfire Prevention Initiative (administered by the Union of BC Municipalities)
JOP	Job Opportunities Program (Provincial)
NRCAN	Natural Resources Canada (Federal)
AFI	Aboriginal Forestry Initiative (Federal)
CREW	Crew Projects
CAF	Community Adjustment Fund (Federal)
SELF	Self funded by the local government or First Nation
FESBC	Forest Enhancement Society of BC
OTHER	Other funding source

Table 3: 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 4: Stand Treatment Technique: Use ONLY these combinations

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

Table 5: Debris Management Technique: Use ONLY these combinations

DEBRIS_MGMT_TECHNIQUE	DEBRIS_MGMT_METHOD
Prescribed Fire	Pile Burning
Prescribed Fire	Broadcast Burn
Piling	Hand
Piling	Mechanical
Debris Management	Lop and Scatter
Debris Management	Chipping
Debris Management	Mastication
Debris Management	Grinding
Debris Removal	Chip Removal
Debris Removal	Hog Fuel Removal
Debris Removal	Slash Removal
Tree Removal	Sawlog
Tree Removal	Firewood
Tree Removal	Other product

Table 6: Threat Plot Qualifier

THREAT_PLOT_QUALIFIER	DESCRIPTION
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 7: Wildfire Behaviour Threat Class

FIRE_BEHAVIOUR_THREAT_CLASS	DESCRIPTION
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">• are forested with continuous surface fuels that will support regular candling, intermittent crown and/or continuous crown fires;• often include steeper slopes, rough or broken terrain with generally southerly and/or westerly aspects;• can include a high incidence of dead and downed conifers;• are areas where fuel modification does not meet an established standard.
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.