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## Strategic Wildfire Prevention Initiative

# Community Wildfire Protection Plan & CWPP Update Program

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## 2017 Program & Application Guide Updated January 2018

### 1. Introduction

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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

### Community Wildfire Protection Plan Program

The CWPP program assists local governments and First Nations in identifying the risks of wildfire to their community as well as opportunities to reduce those risks. The purpose of a CWPP is to identify the wildfire risks within and surrounding a community, to describe the potential consequences if a wildfire was to impact the community, and to examine possible ways to reduce the wildfire risk. For information on completing a CWPP or a CWPP update and using the required template, please refer to Appendix 1.

### 2. Eligible Applicants

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

### 3. Eligible Projects

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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 overlapping CWPPs, 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, CWPPs must:

- Be a new project (retroactive funding is not available)
- Cover an eligible Area of Interest (AOI) (see Appendix 1)
- Be completed on the [2017 CWPP Template \(Updated January 2018\)](#)
- Cover areas that do not have a CWPP or areas where the CWPP is outdated due to changes in land, forest fuel hazards, Ministry plans or other factors
- Be capable of completion by the applicant within one year from the date of grant approval
- For elements of the CWPP that fall under the practice of forestry, be developed by a forest professional that is accredited by the Association of BC Forest Professionals

#### CWPP Updates

Wildfire risk can change when forest health, fuel hazards, or stand structure are altered, or when there is new or expanded development or changes to infrastructure in the interface. Updates to existing CWPPs will be considered for funding in cases where there has been a significant change in the status or condition within the AOI, resulting in an increase in wildfire risk.

Updates to CWPPs will also be considered for funding when the existing CWPP:

- Does not meet the standards of the CWPP Template
- Does not meet current standards for spatial data or Wildfire Threat Assessment worksheets

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

All applications for a CWPP Update must provide a clear written rationale on the need for the update and a map of the proposed CWPP Update AOI that indicates specifically where development, environmental, forest or fuel factors have changed since the previous CWPP was completed.

All final report requirements, including spatial data, are required to be met for the area covered by the CWPP Update.

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. Provincial Strategic Threat Analysis

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The [Provincial Strategic Threat Analysis](#) (PSTA) is a collection of datasets that are used together to inform the CWPP planning process for a specific area. The PSTA is a high-level, strategic analysis conducted at a provincial scale that requires local verification.

The BC Wildfire Service will provide the PSTA and other data for all CWPPs. This information must be used as a reference for initiating a CWPP and is available at no charge to approved applicants.

## 5. Eligible & Ineligible Costs & Activities

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### Eligible Costs & Activities

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 CWPP program, eligible activities must be cost-effective and may include:

- Consultation with the Fuel Management Specialist or Liaison, land manager (e.g. MFLNRO resource district or BC Parks), other local governments, or other stakeholders regarding the proposed CWPP. *Please note this activity may take place before the application is submitted provided it is conducted within 12 months of application submission.*
- Information sharing with First Nations, as required by the land manager (e.g. MFLNRO resource district or BC Parks). *Please note this activity may take place before the application is submitted provided it is conducted within 12 months of application submission.*
- Preparation of the CWPP (see Appendix 1 for information on the required 2017 CWPP Template), including data collection, for all required sections of the CWPP template:
  - Sections 1 & 2: Introduction and local area description
  - Section 3: Values at risk
  - *Updated January 2018:* Section 4: Wildfire threat and risk, including completion of new or updated Wildfire Threat Assessment Worksheets and related spatial data to conform to the current WUI Wildfire Threat Assessment standards (in areas subject to future prescriptions or operational treatments) and updated fuel typing within the WUI area
  - Section 5: Risk management and mitigation factors, including: fuel management, FireSmart planning and activities and communication and education
  - Section 6: Wildfire response resources
- Preparation of maps, spatial data, and metadata (see Appendix 3 for mapping and spatial data requirements)
- Presentation of the CWPP to the Council, Board or Band Council, tenure holders (if applicable), land manager (e.g. MFLNRO resource district or BC Parks), community organizations, etc. Please note: it is expected that all CWPPs and CWPP updates will be presented to the Council, Board or Band Council.
- Amendments to relevant local government or First Nation plans, bylaws and policies that are specific to the CWPP (e.g. land use, engineering and public works bylaws and policies)
- Staff and contractor costs directly related to the development of the CWPP
- Applicant administration costs directly related to the development of the CWPP
- Public information costs directly related to the development of the CWPP

### 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
- Reproductions of maps available from other sources (e.g. BCGW, etc.)
- Reproductions or duplications of existing data available from other sources
- Emergency plans or related activities
- CWPPs for land outside of an eligible AOI
- Assessments for purposes other than fuel treatment (e.g. recreational trails)
- Staff training costs, including safety and first-aid training
- Publication reviews or research

- Prescriptions or operational projects
- Ongoing public information
- Local fire department training
- Assessments for private land
- Purchase of machinery, equipment and software programs
- Work undertaken by the Ministry of Forests, Lands & Natural Resource Operations

## 6. Grant Maximum

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The CWPP program can contribute a maximum of 75% of the cost of eligible activities – to a maximum of \$22,500.00 - and the remainder (25%) is required to be funded through community contributions.

In consultation with the Fuel Management Specialist or Liaison, applications from regional districts or from local governments or First Nations that include multiple communities, are acceptable. In these cases, funding in excess of the maximum amount identified above may be considered.

In order to ensure transparency and accountability in the expenditure of public funds, 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 2 for important information on community contributions and other grant contributions.

## 7. Application Requirements & Process

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### Application Deadlines

*Updated March 2017* - Applications for CWPPs 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
- Map of the proposed AOI, including administrative boundaries and community locations
- In addition to the above requirements, applications for CWPP Updates must also include:
  - Map of proposed AOI including previous CWPP boundaries, areas of new or expanded development or infrastructure, and completed treatment areas from previous plans.
  - [PSTA image](#) or map of relevant fuel type changes

Please note: 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](mailto: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:

- Demonstrated wildfire risk (including current PSTA)
- Rationale for a new CWPP or updating an existing CWPP (refer to Section 3 of this guide)
- Status of CWPP (i.e. no CWPP, outdated CWPP or current CWPP)
- 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
- Cost-effectiveness of proposed CWPP

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 technical review, applications that meet the minimum point value threshold will be considered by the SWPI Evaluation Committee and funding decisions will be made on a provincial priority basis.

## 8. Grant Management & Applicant Responsibilities

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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.

### 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 CWPP 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 SWPI Evaluation Committee 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 SWPI Evaluation Committee.

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 one year 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 CWPP development process and when a draft CWPP is completed. 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 CWPP 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 CWPP 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 [ABCFFP Interim Guidelines – Fire and Fuel Management](#), which includes sections on professional practice and forest professional considerations for fuel management.

Some sections of the CWPP are required to be prepared by a qualified forest professional as outlined above. Due to the complex nature of wildfire threat/risk assessments, 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 in addition to the detailed guidance in the 2017 CWPP template (Updated January 2018).

## 9. 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 (Updated January 2018), including signatures by the applicant and the Registered Forest Professional
- Copy of the completed CWPP using the 2017 CWPP Template (updated January 2018)
- Georeferenced PDF maps (See Appendix 3)
- Spatial data, metadata and methodology relating to the project and a spatial data summary (See Appendix 3)
- If applicable, a copy of the fuel type verification approval email from the Provincial Wildfire Threat Specialist

Please note: CWPP final reports must be submitted and approved prior to submission of fuel management prescription applications. Generally speaking, the Strategic Wildfire Prevention Working Group requires 60 days to review complete final reports.

### 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](mailto: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 CWPP Program & Application Guide (Updated January 2018)
- Spatial data approval – To ensure the completed spatial data meets the requirements for spatial data identified in the 2017 CWPP Program & Application Guide (Updated January 2018)

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

## 10. Additional Information

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- 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](mailto:swpi@ubcm.ca)
  - **First Nations:** contact Forest Fuel Management Department at FNESS at (250) 377-7600 or [ffminfo@fness.bc.ca](mailto: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: Using the 2017 CWPP Template**

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### **Instructions for Using the 2017 CWPP Template**

The 2017 CWPP Template was updated in January 2018.

Wildfire is an integral part of BC's ecosystems and landscapes, including areas where citizens settle and communities grow. Due to an increasing population and expanding rural development, more communities in BC are located in areas of potentially increased wildfire risk.

The 2017 CWPP Template is designed to assist local governments and First Nations in the preparation of a plan that will determine the level of, and steps to manage, wildfire risk within their jurisdictional boundaries. It provides background information and links to supplementary information required to ensure that factors contributing to wildfire risk are well understood.

The 2017 CWPP Template provides an outline of the topics to be addressed in order to effectively plan for the mitigation of wildfire risk, but allows for flexibility in the addition of text, photos and other supporting documentation, as required.

This is the minimum mandatory content and structure requirement for a CWPP in BC under the Strategic Wildfire Prevention Initiative. However, each local government and First Nation will have unique situations and circumstances that should also be addressed and expanded upon in the template, as required. This may include additional subsections, maps and photos that highlight specific actions, challenges, etc.

The CWPP Template includes italicized instructions highlighted in red that are to be deleted in the final documents with embedded suggestions for map locations and content. [The Wildfire Threat Assessment Guide and Worksheets Sub-Component and Descriptor Definitions](#) provides additional standards and guidance for completing Section 4 of the 2017 CWPP Template.

Additional detail regarding the spatial requirements is located in Appendix 3: Final Report Mapping & Spatial Data Requirements of this guide.

## Appendix 2: Community Contributions & Other Grants

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The CWPP program can contribute a maximum of 75% of the cost of eligible activities – to a maximum of \$22,500.00 - and the remainder (25%) is required to be funded through community contributions.

The required community contribution for a project 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 the CWPP (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 (please 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 other grant contributions for eligible portions of the project must be declared on the Final Report Form by all applicants.

### 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.

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. 5 hours at \$18/hr. for consultation).

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

Eligible project cost of \$30,000 Max. SWPI 75% = \$22,500
Other grants totaling \$12,000 Excess funding = \$4,500 Eligible SWPI Grant = \$18,000

## Appendix 3: Final Report Mapping & Spatial Data Requirements

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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 CWPP template are required.

### Required maps or map clusters (inserted into CWPP document and large PDF Maps)

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

- CWPP AOI
- Land ownership and administrative boundaries (private, local government, federal Crown and provincial Crown land)
- Relevant tenures such as range, woodlots, community forests and/or Tree Farm License areas
- Firefighting jurisdictions
- Proposed and completed fuel treatments
- Other, such as FireSmart areas or Wildfire Hazard Development Permit Areas

#### MAP 2: Values at Risk

- CWPP boundary with updated WUI
- Updated structure density and WUI
- Values at risk (critical infrastructure)
- High environmental and cultural values
- Hazardous values at risk
- Optional: other resource values

#### MAP(s) 3: Fire Regime, Ecology and Climate Change

- CWPP boundary with updated WUI
- NDT TYPE
- Forest Health (e.g. MPB)
- Major harvesting patterns, completed fuel treatments or ecological projects
- Historical Fire Perimeters
- Climate Change scenarios relevant to section (Future BEC zones)

#### MAP(s) 4: Provincial Strategic Threat Analysis

- Threat rating
- Spotting impact
- Head fire intensity
- Historical fire density

#### MAP 5: Fire History

- CWPP boundary with updated WUI
- PSTA human and lightning fire starts with fire perimeters
- Include local fire incident history if relevant
- Other relevant info such as WUI, structures, or VAR

#### MAP(s) 6: Updated Fuel Type

- CWPP boundary with updated WUI
- Corrected fuel type with hectares
- Verification fuel type plot locations and labels
- WUI Zones
- Field verified overview of fuel typing plot locations and hectares of each fuel type
- If significantly different, show original PSTA fuel type map

#### MAP(s) 7: Local Fire Risk \*

- CWPP boundary with updated WUI
- Risk polygons labelled by Extreme, High, Moderate, and Low
- Hectares of polygons on map
- WUI Zones
- Assessment plot locations / labelled
- Critical infrastructure and other relevant VAR

#### MAP 8: Fuel Treatment

- CWPP boundary with updated WUI
- Land status and tenure overlaps (e.g. range, woodlots, area-based WHAs)
- Proposed fuel treatment units (unique identifier, ha, priority (1, 2, 3...))
- Previously completed treatments (labelled by year)
- Hectares of polygons on map
- Assessment plot locations / labelled

\* Updated January 2018: If using the 2012 Wildfire Threat Assessment Guide, Map 7 will follow these standards: CWPP Wildfire Threat: CWPP Boundary, Wildfire Behaviour Threat Class, WUI Threat Class (if applicable), Threat Class plots, outline of proposed treatment areas, any previously completed treatments. Threat Class plots must be labelled with the PLOT\_NUMBER. Previously completed treatments must be labelled with the treatment year. Hectares of each Wildfire Behaviour and WUI Threat Classes must be stated on the map.

## Mandatory Map Requirements

- Descriptive title
- Scale (as text or scale bar)
- North arrow
- Legend
- CWPP 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\_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:** *Updated March 2017* - 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 the 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 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.
- The CWPP area of interest should cover the updated CWPP WUI area and all proposed treatment areas.
- Fuel types must be validated, and updated if required, for areas within the updated CWPP WUI area.
- Missing structures within the CWPP boundary and outside the density class 5 area need to be provided. Missing structures are those that are not already contained within the current PSTA structure layer. The critical infrastructure qualifier must be specified for these structures.
- *Updated March 2017* - Structures within the PSTA structure layer must also be returned. Only PSTA structures outside the density class 5 area need to be verified (see Specific Submission Requirements \_STRUCTURES). These verified structures must also have the critical infrastructure qualifier specified.
- *Updated March 2017* - The critical infrastructure qualifier must be specified for **ALL** structures outside the density class 5 area (see Table 15).
- *Updated March 2017* - Structures where the critical infrastructure qualifier is set to YES must also have the critical infrastructure structure category specified (see Table 13).
- 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 Community Wildfire Protection Plans - Updated January 2018

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
AOI	YES	CWPP area of interest (should cover the WUI 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
FUEL_TYPE	YES	Updated PSTA Fuel Type (not required if no updates were done)	FUEL_TYPE	Updated PSTA Fuel Type. See Table 3	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
			PERCENT_HARDWOOD	Percent hardwood (PH) composition for M-1/M-2 Fuel types	Short integer
			PERCENT_DEAD	Percent dead fir (PDF) for M-3/M-4 Fuel Types	Short integer
			LOCAL_THREAT_SCORE	Local threat score based on updated PSTA fuel type	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
			FUNDING_SOURCE	Funding (ex. SWPI). See Table 2	Text, 30
AREAHA	Area in hectares	Double			
WUI_ZONES	YES	Defined WUI zone areas that are used to guide threat classification and treatment prioritization	WUI_ZONE	WUI Zones. See Table 6	Text, 15
			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
PROPOSED_TREATMENT	YES	Proposed gross treatment or fuel break area	PROPOSED_TREATMENT_ID	Unique proposed treatment identifier	Text, 7
			PRIORITY	Priority of proposed treatment unit. See Table 7	Text, 10
			FUEL_BREAK	Qualifier to indicate if the proposed treatment area is a fuel break. See Table 8	Text, 5
			PROPOSED_FUEL_BREAK_TYPE	Fuel Break Type. See Table 9	Text, 25
			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)
STRUCTURES	YES	Structures within the CWPP boundary	CRITICAL_INFRASTRUCTURE	Qualifier to indicate if structure is considered critical infrastructure. Only required for CI structures outside density class 5. See Table 15	Text, 5
			CI_STRUCTURE_CATEGORY	Critical Infrastructure structure category (ex. Safety, Communications, Transportation). Only required for CI structures outside density class 5. See Table 13	Text, 50
			STRUCTURE_CHANGE_TYPE	Type of change. See Table 16.	Text, 15
			STRUCTURE_CHANGE_REASON	Rationale for change to structure point (that was provided as part of PSTA data package).	Text, 250
			STRUCTURE_CHANGE_SOURCE	Origin of Structure data. Should be prefixed with "CWPP" and include the applicant's name. E.g. "CWPP - Cariboo RD".	Text, 75
			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

**Updated January 2018: 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 10	Text, 5
			FUEL_ASSESSMENT_RATING	Site level Fuel Assessment Rating. See Table 11	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
WILDFIRE_RISK *	YES	Dataset indicating area and risk class as described in CWPP Template	WILDFIRE_RISK_CLASS	Wildfire Risk Class See Table 12	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
			AREAHA	Area in hectares	Double

**Updated January 2018: If using the 2012 Wildfire Threat Assessment Guide the following layers are also required:**

<b>Feature Layer Name</b>	<b>KMZ</b>	<b>Feature Layer Description</b>	<b>Mandatory Attributes</b>	<b>Attribute Description</b>	<b>Attribute Details (Data type, length)</b>
<b>FIRE_THREAT</b>	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 3	Text, 10
			WUI_THREAT_CLASS	WUI threat class based on the definitions in of current Threat Rating Guide. 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
			FUNDING_SOURCE	Funding source (ex. SWPI). See Table 2	Text, 30
			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 10	Text, 5
			FIRE_BEHAVIOUR_THREAT_CLASS	Wildfire behaviour threat class based on definitions in current Threat Rating Guide. See Table 3	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 January 2018

**Table 1: Data Collection Method**

<b>DATA_COLLECTION_METHOD</b>	<b>DESCRIPTION</b>
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**

<b>FUNDING_SOURCE</b>	<b>DESCRIPTION</b>
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: Wildfire Behaviour Threat Class (Updated January 2018)**

***If using the 2012 Wildfire Threat Assessment Guide the following attributes are required:***

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"> <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> </ul>

	<ul style="list-style-type: none"> <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 5: Wildland Urban Interface Threat Class (Updated January 2018)**

***If using the 2012 Wildfire Threat Assessment Guide the following attributes are required:***

<b>WUI_THREAT_CLASS</b>	<b>DESCRIPTION</b>
N/A	Wildfire behaviour threat class is not high or extreme.
Low	High or extreme wildfire behaviour threat class polygon is sufficiently distant from any developments to not to have a direct impact on the community. The polygon is likely over two kilometers from any developments.
Moderate	High or extreme wildfire behaviour threat class polygon is sufficiently distant away from any developments to not to have a direct impact. The polygon is likely over five hundred meters from any developments.
High	High or extreme wildfire behaviour threat class polygon has the potential to directly impact a community or development. The polygon is within five hundred meters of a community or development(s).
Extreme	High or extreme wildfire behaviour threat class polygon has the potential to directly impact a community or development. The polygon is immediately adjacent to a community or development(s).

**Table 6: WUI Zones**

<b>WUI_ZONE</b>	<b>DESCRIPTION</b>
WUI 100	This Zone is always located 0-100 meters from the value at risk. Treatment should modify the wildfire behaviour near or adjacent to the value. Treatment effectiveness would be increased when the value is FireSmart.
WUI 500	This Zone is always located 101-500 meters from the value at risk. Treatment would affect wildfire behaviour approaching a value, as well as the wildfire's ability to impact the value with short- to medium- range spotting; would also provide suppression opportunities near a value.
WUI 2000	This Zone is always located 501-2000 meters from the value at risk. Treatment could be effective in limiting long - range spotting but short- range spotting may fall short of the value and cause a new ignition that could affect a value.

**Table 7: Proposed Treatment Priority**

<b>PRIORITY</b>	<b>DESCRIPTION</b>
Low	Proposed treatment area has a low priority
Moderate	Proposed treatment area has a moderate priority
High	Proposed treatment area has a high priority

**Table 8: Fuel Break**

<b>FUEL_BREAK</b>	<b>DESCRIPTION</b>
Yes	Yes, the proposed treatment area is a fuel break.
No	No, the proposed treatment area is not a fuel break.

**Table 9: Fuel Break Types**

<b>FUEL_BREAK_TYPE</b>	<b>DESCRIPTION</b>
Interface Fuel Break	Fuel breaks on Crown Land immediately adjacent to private land and in close proximity to the WUI and/or intermix areas, are termed "Interface Fuel Breaks". Interface Fuel Breaks are designed to modify fire behaviour, create fire suppression options, and improve suppression outcomes.
Primary Fuel Break	Primary Fuel Breaks are located on Crown Land in strategic locations beyond the Interface Fuel Break. The location of Primary Fuel Breaks depends on land ownership (Crown vs. private), existing natural and man-made features, fuel types, and wind patterns. Primary Fuel Breaks are designed to modify fire behaviour and create fire suppression options that reduce the risk of a crown fire reaching a community and/or adjacent private lands.

**Table 10: 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 11: 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 12: Wildfire Risk Class**

<b>WILDFIRE_RISK_CLASS</b>	<b>DESCRIPTION</b>
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 will not support spreading fires, and any patches of vegetation will usually self-extinguish. 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, and 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, and 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 - 1000m).

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 - 1000m or greater). These forest stands have the greater potential to produce extreme fire behaviour (long range spotting, fire whirls and other fire behaviour phenomena).
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**Table 13: CI Structure Category**

CI_STRUCTURE_CATEGORY	DESCRIPTION
Energy Utility and Facilities	Oil & Gas Facilities and Pipelines, Transmission Lines and Facilities, Independent Power Projects
Communications and Information Technology	Weather Stations, Radio Towers
Health Care	Hospitals
Water	Drinking Water, Sewage and Sanitation Systems
Transportation	Airports, Railway
Safety	Police Station, Fire Hall, Ambulance
Government	City Hall or Critical Government Buildings, Educational Institutions

**Table 15: Critical Infrastructure**

CRITICAL_INFRASTRUCTURE	DESCRIPTION
YES	Yes, the structure is considered critical infrastructure.
NO	No, the structure is not considered critical infrastructure.

**Table 16: Structure Change Type**

STRUCTURE_CHANGE_TYPE	DESCRIPTION
Addition	New structure or modified location of a PSTA structure point.
Deletion	PSTA structure point that needs to be removed or has been modified (replaced with modified point as noted above).
No Change	No change - keep PSTA structure point as is.

## **Additional Data - Values at Risk (VAR) – Updated March 2017**

In addition to the specific submission data described above, it is recognized that other data may be acquired, or generated as part of this project which cannot be specifically defined in advance. Updated values at risk information includes structures as described above, critical infrastructure, high environmental and cultural values, and hazardous values. These are generally values that exist on municipal land (crown or otherwise) that may be impacted by wildfire and may be captured in the Local Authority Emergency Plan.

**Any data that is acquired, updated or generated for this project that is not in the BC Geographic Warehouse (BCGW), or included in the layers submitted above, must be submitted as VAR spatial data in an ArcGIS file geodatabase (FGDB).** It is strongly recommended that you use the template FGDB.

Metadata must be provided for each submitted layer as described above.

The template FGDB has been set up consistent with the CWPP template. Save all additional VAR data in the FGDB template in the most appropriate feature dataset as described in the list below. Please name your data with easy to understand names (ex: for Critical Infrastructure: Energy\_PowerLines).

- **Human Life Safety** (not already contained within the structures layer) – examples include campgrounds, campsites, picnic areas, rec sites, trailheads, lodges, cabins and camps
- **Critical Infrastructure** (not already contained within the structures layer)
- **High Environmental Cultural** – examples include significant species at risk and established legal objectives and orders, archaeological sites, traditional use sites, historic building and artifacts, heritage trails, local community watersheds that are not publically available, interpretive forests, recreation reserves, and large forested municipal parks
- **Other Resource Values** – examples include timber, water, or high-value wildlife habitat
- **Hazardous Values** – examples include large propane facilities, landfills, rail yards, and storage facilities containing explosives

Please ensure data source and source contact details are provided. NB – Only data that is publicly available (outside of the BCGW), digitally captured or willingly provided by asset holder is required.

### **Examples of Human Life and Safety:**

<b>Human Life and Safety VAR Type</b>	<b>Examples</b>
Wildland Structures	<ul style="list-style-type: none"> <li>• Lodges</li> <li>• Industrial</li> <li>• Camps (Fish, Hunt, G/O, Construction)</li> <li>• Cabins and Huts</li> <li>• Rural and Recreational Residential</li> </ul>
High Value Recreational Infrastructure	<ul style="list-style-type: none"> <li>• BC Park Facilities and Infrastructure / Cabins, Visitor Centers</li> <li>• Campgrounds/Campsite</li> <li>• Walk In Campsites</li> <li>• Day Use Areas</li> <li>• Trail Heads</li> <li>• Recreation Sites</li> </ul>

## Examples of Critical Infrastructure:

<b>Critical Infrastructure Category</b>	<b>Critical Infrastructure Subcategory (if applicable)</b>	<b>Examples</b>
Energy, Utilities and Facilities	Oil and Gas Facilities and Pipelines	<ul style="list-style-type: none"> <li>• Pipelines</li> <li>• Facilities</li> <li>• Well Sites</li> </ul>
Energy, Utilities and Facilities	Transmission Facilities	<ul style="list-style-type: none"> <li>• Hydro Facilities</li> <li>• Hydro Substation</li> <li>• Hydro Transmission Structure</li> </ul>
Energy, Utilities and Facilities	Transmission Lines	<ul style="list-style-type: none"> <li>• Transmission Lines</li> <li>• Penstock</li> <li>• Fibre Line</li> <li>• Underground Conductor</li> <li>• Underground Secondary Conductor</li> </ul>
Energy, Utilities and Facilities	Independent Power Projects	<ul style="list-style-type: none"> <li>• Hydro Power Projects</li> </ul>
Energy, Utilities and Facilities	Wind Power	<ul style="list-style-type: none"> <li>• Wind Power Towers</li> </ul>
Water	Water Infrastructure	<ul style="list-style-type: none"> <li>• Combined, Sanitary Sewer, Stormwater, Water Distribution</li> </ul>
Water		<ul style="list-style-type: none"> <li>• Drinking Water and Sanitation Systems</li> </ul>
Communications and Information Technology		<ul style="list-style-type: none"> <li>• RADAR</li> <li>• Nav aids</li> <li>• Instrument Landing Sites</li> <li>• Climate Stations, Weather Stations</li> <li>• Radio/Cellular Towers</li> </ul>
Health Care		<ul style="list-style-type: none"> <li>• Hospitals</li> </ul>
Transportation		<ul style="list-style-type: none"> <li>• Railways</li> <li>• Airport</li> <li>• Heliport</li> <li>• Seaplane Facility</li> <li>• Airstrip or Other Facility</li> <li>• Bridges</li> </ul>
Safety		<ul style="list-style-type: none"> <li>• First Responders</li> <li>• Facilities associated with Ambulance, Fire and Police.</li> </ul>
Government		<ul style="list-style-type: none"> <li>• Public Buildings</li> <li>• Civic Buildings (Community Hall, Government, Museum, Arenas etc.)</li> <li>• Schools</li> <li>• Transit (Sky Train, Ferry, Greyhound, Rail, etc.)</li> </ul>