

Appendix B – Requirements for Map and Spatial Data

The following deliverables are to be submitted directly to the FLNRORD designate, where they will be uploaded by the responsibility area to \\forwebfiles.nrs.bcgov\ftp\HPR\mof_internal\incoming\HQ\WRR to be processed:

- Georeferenced PDF map(s)
- KMZ (planning and operational units; survey plots)
- Geodatabase (compressed into a zip file)

The spatial deliverables above should be replicated to the ArcGIS Online Prevention Dashboard; there is an automated script that looks for new files nightly from the delivery location on the FTP site and notifies the BCWS Geo staff the next day. If you do not see your data replicated in the Dashboard in a reasonable amount of time, or if you encounter issues, please contact BCWS Geospatial Services FLNR:EX BCWILDFIREGEO@gov.bc.ca.

Specific mapping and spatial requirements, including the planning and operation unit naming conventions (found under the *Attribute Description* column in the *Spatial data layers* section) are outlined below:

- A. Tactical Plan Overview Map** – Required in PDF format at an appropriate scale (*compress map files to reduce unnecessary large file sizes*). An MXD template is available to assist in meeting a specified standard. The following map content is required:
- Area of Interest (AOI), WMU, WRRU, fuelbreaks, FTUs, AMUs - labelled by unique ID
 - Land status and tenure overlaps (e.g., range, area-based tenures, woodlots)
 - Relevant Assessment plot locations / labelled by Plot Number
 - Previously completed fuel treatments if applicable (labelled by year)
 - Key overlapping values of interest
 - Descriptive title
 - Project number and proponent name
 - Date
 - Scale (as text or scale bar)
 - Reference data: roads, railways, transmission lines, pipelines, water bodies and rivers/creeks etc.
 - North arrow
 - Legend

B. Spatial data layers (compatible with ESRI ArcGIS 10.6 and accompanied by KMZ format):

Feature Layer Name	KMZ	Feature Layer Description	Mandatory Attributes	Attribute Description	Attribute Details (Data type, length)
AOI	YES	Project boundary defining planning area	PROJECT_NUMBER	Unique CL WRR Project Number; as assigned by BCWS and provided within the Allocation letters. Format: GOVWR<FC><###> e.g.: GOVWRCA001	Text, 10
			DATA_COLLECTION_DATE	Date spatial data was collected	Date (DD/MM/YYYY)
WMU	YES	Wildfire Management Unit: planning unit	PROJECT_NUMBER	As defined above	Text, 10
			WMU_NAME	Unique WM Unit name Format: <Geographic Area> e.g.: "Verdun" or "Green Lake"	Text, 25
			WMU_ID	Unique WM Unit ID Format: <TWO LETTERS of geographic area> e.g.: "VD" or "GL"	Text, 2
			LOCATION_NAME	Tactical Plan Name	Text, 50
			DATA_COLLECTION_DATE	As defined above	Date (DD/MM/YYYY)
			AREAHA	Area in hectares	Double
WRRU	YES	Wildfire Risk Reduction Unit: planning unit	PROJECT_NUMBER	As defined above	Text, 10
			WRRU_ID	Unique WRR Unit ID with WMU ID prefix Format: <WMU ID> "<CATEGORY code>" -"<###> e.g.: "VD-CO-01", "VD-CI-01", "VD-FB-01"	Text, 8
			CATEGORY	Acceptable values: "COMMUNITY" or "CRITICAL INFRASTRUCTURE" or "FUELBREAK" ID codes: CO, CI, FB	Text, 25

			LOCATION_NAME	Tactical Plan Name	Text, 50
			DATA_COLLECTION_DATE	As defined above	Date (DD/MM/YYYY)
			AREAHA	Area in hectares	Double
FTU	YES	Fuel Treatment Unit: operational fuel management unit	PROJECT_NUMBER	As defined above	Text, 10
			FTU_ID	Unique FT Unit ID with WMU ID prefix Format: <WMU ID> “-FTU-”<##> e.g.: “VD-FTU-01”	Text, 10
			LOCATION_NAME	Tactical Plan Name	Text, 50
			DATA_COLLECTION_DATE	As defined above	Date (DD/MM/YYYY)
			DATA_COLLECTION_METHOD	Method of spatial data collection. See <i>Attribute Value Reference Table.</i>	Text, 45
			AREAHA	Area in hectares	Double
AMU	YES	Assess and Monitor Unit: operational fuel management unit	PROJECT_NUMBER	As defined above	Text, 10
			AMU_ID	Unique AMU ID with WMU ID prefix Format: <WMU ID>“- AMU-”<##> e.g.: “VD-AMU-01”	Text, 10
			CATEGORY	Acceptable values: “OPERABILITY CONCERN” or “LOWER THREAT” Rationale to be included in output table deliverable	Text, 20
			LOCATION_NAME	Tactical Plan Name	Text, 50
			DATA_COLLECTION_DATE	As defined above	Date (DD/MM/YYYY)
			DATA_COLLECTION_METHOD	Method of spatial data collection. See <i>Attribute Value Reference Table.</i>	Text, 45
			AREAHA	Area in hectares	Double
ASSESSMENT_ PLOT	YES	Field assessment plot locations	PROJECT_NUMBER	As defined above	Text, 10
			PLOT_NUMBER	Unique plot number corresponding to Assessment Worksheet	Text, 7
			DATA_COLLECTION_DATE	As defined above	Date (DD/MM/YYYY)

			DATA_COLLECTION_METHOD	As defined above	Text, 45
			COMMENTS	Any comments not included in accompanying table	Text, 255

C. Spatial data requirements:

a. Data Format and Naming Conventions:

- Data must be in a file geodatabase (GDB) and KMZ format and must conform to the conventions for feature dataset names, feature class names, attribute names, and attribute values as identified in these accompanying tables. It is strongly recommended that you use the template GDB to facilitate meeting this requirement.
- GDB and KMZ names should adhere to this naming standard: WRR_<NR District>_<Project Number>

b. GDB Projection: *NAD_1983_BC_Environment_Albers (EPSG:3005)*: <https://epsg.org/crs/wkt/id/3005>

c. 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.

d. Submission: The method for spatial data submission is a file geodatabase (GDB) compressed into a zip file and accompanying KMZ file(s).

e. Additional notes:

- The Area of Interest boundary represents the total Project Area defined by unique Project Number.
- One single or multi part polygon must be submitted for each Planning or Operational Treatment Unit; multiple single polygons cannot be associated to one Unit.
- AOI, WMU, WRRU, Fuelbreak, FTU, and AMU spatial hectares must match the hectares stated on the maps and in the corresponding table(s).

D. Attribute Value Reference Table:

DATA_COLLECTION_METHOD	DESCRIPTION
Unknown	The data was acquired without details of the collection method.
Hand Sketch of any type	The data was hand sketched, either on an analog map or on-screen.
Non-corrected ground GPS	The data was captured with a GPS unit, at or in close proximity to ground level, but was not post-processed or was captured with a GPS unit incapable of doing differential GPS.
Non-corrected airborne GPS	The data was captured with a GPS unit, using an airborne UAV or craft, but was not post-processed or was captured with a GPS unit incapable of doing differential GPS.
Corrected ground GPS	The data was captured with a differential GPS unit, at or in close proximity to ground level, or was post-processed with information received from known reference stations to improve data accuracy.
Corrected airborne GPS	The data was captured with a differential GPS unit, using an airborne UAV or craft, or was post-processed with information received from known reference stations to improve data accuracy.
Digitized from aerial photo	The data was delineated from an orthophoto (aerial photography).
Processed IR image	The data was created using GIS analysis.
Processed scanned photo	The data was created using GIS analysis.
Derived from satellite imagery	The data was delineated from a satellite image.

Digitized from image	The data was delineated using photographs or images in stereo pairs.
Digitized other	The data was converted from an analog map into a digital format using a manual digitizing process.
Not Applicable	Use of this method assignment is discouraged unless none of the other methods apply.