



Ministry of
Forests, Lands, Natural
Resource Operations
and Rural Development

Spatial Data Standards - Fuel Management

Land and Resource Department

Okanagan Shuswap Natural Resource District

2501 14th Avenue, Vernon BC V1T 8Z1

Version 1.2

March 2022

Available for download:

http://www.for.gov.bc.ca/ftp/DOS/external/!publish/Fuel_Management_Data/Standards_Document

DOCUMENT CHANGE CONTROL

Version	Date	Author(s)	Description of Change
1.0	April 2020	Lynda Ronan	- Original document created
1.1	September 2021	Lynda Ronan	- Updated Block State to include NOT STARTED
1.2	March 2022	Lynda Ronan	Updated Block State field to include IMPLEMENTATION COMPLETED, BURN COMPLETED, PRESCRIPTION COMPLETED, removed COMPLETED

The goal of the GIS department in the Okanagan Shuswap Natural Resource District (DOS) is to have all digital data supplied to this office in a condition that maximizes its ability to be incorporated into our GIS System in the most efficient and accurate means possible.

NOTE: ESRI ArcGIS is the software being utilized within DOS.

This document will be revised annually but may be updated periodically during the year as well. Contract coordinators will be notified of any updates, and contractors must check for an updated version of this document.

If you have any questions about any part of the following data standards, contact a GIS representative listed below.

CONTACT

Name	Position	Phone	E-Mail Address
	GIS Analyst		

METHOD OF DELIVERY

To be determined by the DOS operational contract manager/coordinator (ensure that data is virus-free).

Files can easily be transferred using a web browser or FTP client and going to the following URL:

<ftp://ftp.for.gov.bc.ca/DOS/external/incoming>

FORMAT REQUIREMENTS FOR ALL GIS DELIVERABLES

Spatial Data

All spatial data will be formatted in an **ESRI 10.6** or earlier **File Geodatabase (GDB)**, with an accompanying **KMZ**. They must conform to the conventions for feature dataset, feature class, and attribute names, along with attribute values as outlined in this document.

The submitted File Geodatabase (GDB) will be compressed into a zip file.

It is strongly recommended that the template GDB be used to help facilitate meeting these requirements. The template can be found on

[http://www.for.gov.bc.ca/ftp/DOS/external/!publish/Fuel Management Data/ArcMap Templates](http://www.for.gov.bc.ca/ftp/DOS/external/!publish/Fuel_Management_Data/ArcMap_Templates)

Maps Products

All map products will be delivered as a georeferenced PDF at an appropriate scale for the mapped features.

FILE NAMING CONVENTION

The GDB and KMZ names should adhere to this naming standard: GOVWRKA<Project Number> eg. GOVWRKA001

FUEL MANAGEMENT PRESCRIPTION MAPPING SPECIFICATIONS

All map products will be delivered as a georeferenced PDF map at an appropriate scale for the mapped features.

The following lists the required map content to be submitted to the DOS office.

- BLOCK Boundary with land status and tenure overlaps (e.g. range, area-based tenures, woodlots)
- Proposed Treatment Unit (labelled by Treatment Unit ID)
- Reserves
- Treatment Unit summary table (area, prescription targets)
- Proposed road/trail and landing construction
- Site hazards (rock outcrops etc.)
- Relevant Assessment plot locations (labelled by Plot Number)
- Previously completed fuel treatments if applicable (labelled by year)
- Descriptive title
- Project number and proponent name
- Date
- Scale (as text or scale bar)
- North arrow
- Legend
- Reference data as applicable: recreation trails, roads, railways, transmission lines, pipelines, water bodies, rivers/creeks etc.
- Compress map files to reduce unnecessary large file sizes

GIS SPATIAL DATA SPECIFICATIONS

All spatial data sent to DOS must adhere to the following specifications.

Projection

All GIS data must be delivered in **BC ALBERS EPSG 3005**. The Albers parameters to use are those of the DataBC standard:

Projected Coordinate System:	NAD_1983_BC_Environment_Albers
Projection:	Albers
False Easting:	1000000.0
False Northing:	0.0
Central Meridian:	-126.0° (126°00'00" West longitude)
Standard_Parallel_1:	50.0° (50°00'00" North latitude)
Standard_Parallel_2:	58.5° (58°30'00" North latitude)
Latitude_Of_Origin:	45.0° (45°00'00 North latitude)
Linear Unit:	Meter
Geographic Coordinate System:	GCS_North_American_1983
Datum:	D_North_American_1983
Prime Meridian:	0
Angular Unit:	Degree

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, overlaps, and geometry errors will not be accepted.

One single or multi part polygon must be submitted for each block, treatment unit and/or activity.

Project Area, Block, and Treatment Unit boundaries and spatial hectares must match the hectares stated on all maps and tables.

It is advisable that contractors conduct a thorough quality check of their spatial data before submitting.

GIS SPATIAL DATA STANDARDS

The following pages list the standards, database schemas, and required fields that must be followed for all spatial data being submitted to the DOS office.

- Text or characters in attribute fields must be entered as UPPER CASE unless otherwise specified.
- Polygon data must be clean and free from sliver polygons, gaps, overlaps, and geometry errors.
- No leading spaces in attribute fields.
- Do not send empty Feature Classes in the File Geodatabase.
- Send only newly created or modified data.
- No spaces in filenames.

Attribute Value Reference Table 1.

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

PROJECT AREAS (polygon) – gross project area

** Represents fields with coded domains which are to be used for data entry*

FIELD NAME	ATTRIBUTE DESCRIPTION	ATTRIBUTE DETAILS
PROJECT_NAME	Unique project name	Text, 30
PROJECT_ID	Unique project identifier	Text, 20
*FUNDING_SOURCE (FundingCodes)	CLWRR CRI FES OTHER SWPI	Text, 10
INDUSTRY_PARTNER	Industry partner in project	Text, 50
FN_PARTNER	First Nations partner in project	Text, 50
*PROJECT_STATUS (StatusCodes)	APPROVED PROPOSED RECCE	Text, 10
*PROJECT_STATE (StateCodes)	COMPLETED DROPPED IN PROGRESS	Text, 20
INTAKE_YEAR	Fiscal year project is proposed and approved	Integer
LOCATION	Geographic description	Text, 50
DATA_COLLECTION_DATE	Date spatial data was collected	Date (YYYY/MM/DD)
*DATA_COLLECTION_METHOD (DataCollectionCodes)	Method of spatial data collection <i>See Attribute Value Reference Table 1.</i>	Text, 45
COMMENTS	Additional notes related to block	Text, 255
AREAHA	Area in hectares	Double

BLOCKS (polygon) - Unique blocks within project areas

The Block boundary represents the sum of all treatment unit polygons.

** Represents fields with coded domains which are to be used for data entry*

FIELD NAME	ATTRIBUTE DESCRIPTION	ATTRIBUTE DETAILS
PROJECT_NAME	Name of Project	Text, 30
PROJECT_ID	Unique Project Number	Text, 20
INDUSTRY_PARTNER	Industry partner in project	Text, 50
FN_PARTNER	First Nations partner in project	Text, 50
BLOCK_ID	Unique block identifier – must be numeric 1, 2, 3, etc.	Short Integer
*BLOCK_STATUS (StatusCodes)	APPROVED PROPOSED RECCE	Text, 10
*BLOCK_STATE (BlockStateCodes)	NOT STARTED IN PROGRESS PRESCRIPTION COMPLETED IMPLEMENTATION COMPLETED BURN COMPLETED DROPPED	Text, 25
*TREATMENT_METHOD (TreatmentMethodCodes)	ALL COMBO HAND MECHANICAL PRESCRIBED BURN	Text, 20
LOCATION	Geographic description	Text, 50
DATA_COLLECTION_DATE	Date spatial data was collected	Date (YYYY/MM/DD)
*DATA_COLLECTION_METHOD (DataCollectionCodes)	Method of spatial data collection <i>See Attribute Value Reference Table 1.</i>	Text, 45
COMMENTS	Additional notes related to block	Text, 255
AREAHA	Area in hectares	Double

TREATMENT UNITS (polygon) - Operational treatment units

The sum of all treatment units must total the gross block area. All treatment units must be fully contained within the block area.

** Represents fields with coded domains which are to be used for data entry*

FIELD NAME	ATTRIBUTE DESCRIPTION	ATTRIBUTE DETAILS
PROJECT_NAME	Name of Project	Text, 30
PROJECT_ID	Unique Project Number	Text, 20
BLOCK_ID	Unique block identifier – must be numeric 1, 2, 3, etc.	Short Integer
*TREATMENT_UNIT_ID (TreatmentUnitCodes)	TU1, TU2, TU3, etc. RESERVE PAS WTRA OTHER	Text, 10
*TREATMENT_TYPE_1 (TreatmentTypeCodes)	HARVEST OTHER PRESCRIBED BURN PRUNING THINNING	Text, 20
*FUEL_MGMT_STRATEGY_1 (FuelMgmtStrtgy)	CHIP AND DISPERSE HAUL OFF SITE PILE BURNING	Text, 20
*TREATMENT_TYPE_2	Follow standard for TREATMENT_TYPE_1	Text, 20
*FUEL_MGMT_STRATEGY_2	Follow standard for FUEL_MGMT_STRATEGY_1	Text, 20
*TREATMENT_TYPE_3	Follow standard for TREATMENT_TYPE_1	Text, 20
*FUEL_MGMT_STRATEGY_3	Follow standard for FUEL_MGMT_STRATEGY_1	Text, 20
*TREATMENT_TYPE_4	Follow standard for TREATMENT_TYPE_1	Text, 20
*FUEL_MGMT_STRATEGY_4	Follow standard for FUEL_MGMT_STRATEGY_1	Text, 20
*TREATMENT_TYPE_5	Follow standard for TREATMENT_TYPE_1	Text, 20
*FUEL_MGMT_STRATEGY_4	Follow standard for FUEL_MGMT_STRATEGY_1	Text, 20
*TREATMENT_STATE (StateCodes)	COMPLETED DROPPED IN PROGRESS	Text, 20
TREATMENT_DATE	Date treatment is completed	Date (YYYY/MM/DD)
LOCATION	Geographic description	Text, 50
DATA_COLLECTION_DATE	Date spatial data was collected	Date (YYYY/MM/DD)
*DATA_COLLECTION_METHOD (DataCollectionCodes)	Method of spatial data collection <i>See Attribute Value Reference Table 1.</i>	Text, 45
COMMENTS	Additional notes related to treatment unit	Text, 255
AREAHA	Area in hectares	Double