Frequently Asked Questions for submitting geospatial files

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Data Handling

How does the Forest Operations Map application handle your data?

The Forest Operations Map application simplifies detailed maps that users submit. To save space and speed up processing, the application reduces the number of points in these maps while keeping the map's original shape accurate within about 2.5 meters. This process uses the Douglas-Peucker algorithm.

File Requirements

What are the requirements for submitting geospatial files?

Each file must be in GeoJSON or, depending on the GIS software, in some cases in JSON format. Shapes must be either polygons for cutblocks and wildlife tree retention areas (WTRA) or line features for road sections.

Ensure your shapes do not contain curves or multipart features. A spatial submission must include at least one cutblock file or one road section file.

- a. File Format: GeoJSON or JSON
- b. File Encoding: UTF-8
- c. Coordinate Systems: BC Albers (EPSG:3005), or WGS 84 (EPSG:4326)
- d. File Size: Maximum 30MB
- e. **Submission:** Each spatial file submission must include at least one cutblock or road section feature

What is the structure for GeoJSON/JSON files?

Each JSON file should consist of a single FeatureCollection object. The geometries must be polygons or linestrings depending on the feature type, and coordinates must be ordered as XY. **Latitude and longitude are not accepted.**

Attribute Requirements

What attributes must be included in the GeoJSON/JSON files?

Every file must include the following attributes:

- **DEV_DATE:** Development date in the format YYYY-MM-DD
- FOM_OBJECT: Description of the feature
- **GEOMETRY:** Type of geometry (polygon or LineString)
- NAME: Feature name (optional but recommended for public feedback)

What is the structure for GeoJSON/JSON files?

Ensure attribute tables use the exact titles and formats specified to avoid issues during file conversion. All attribute fields must be formatted as plain text.

General Format for Attribute Table

FOM_OBJECT	GEOMETRY	DEV_DATE	NAME
Road Section	LineString	YYYY-MM-DD	NAME
Cut Block	Polygon	YYYY-MM-DD	NAME
WTRA	Polygon	Enter YYYY-MM-DD or leave blank	NAME

Detailed Attribute Requirements

Road Section

The attribute table in the shapefile must look as follows (all fields formatted as plain text):

FOM_OBJECT	GEOMETRY	DEV_DATE	NAME
Road Section	LineString	YYYY-MM-DD	NAME

The following table outlines the attribute fields in detail:

Field	Description	Туре	Optional
FOM_OBJECT	Road Section	text	Ν
GEOMETRY	BC Albers (EPSG:3005) or WGS 84 (EPSG:4326 and EPSG:3005) coordinate reference system	LineString	Ν
DEV_DATE	Development date.Format: YYYY-MM-DD	text	Ν
NAME	Road Section Name. Not required but is recommended in order to make it easier for the public to comment on specific features.	text	Y

Cut Block

The attribute table in the shapefile must look as follows (all fields formatted as plain text):

FOM_OBJECT	GEOMETRY	DEV_DATE	NAME
Cut Block	Polygon	YYYY-MM-DD	NAME

The following table outlines the attribute fields in detail:

Field	Description	Туре	Optional
FOM_OBJECT	Cut Block	text	Ν
GEOMETRY	BC Albers (EPSG:3005) or WGS 84 (EPSG:4326 and EPSG:3005) coordinate reference system	Polygon	Ν
DEV_DATE	Development date.Format: YYYY-MM-DD	text	Ν
NAME	Road Section Name. Not required but is recommended in order to make it easier for the public to comment on specific features.	text	Y

WTRA

The attribute table in the shapefile must look as follows (all fields formatted as plain text):

FOM_OBJECT	GEOMETRY	DEV_DATE	NAME
WTRA	Polygon	Enter YYYY-MM-DD or leave blank	NAME

The following table outlines the attribute fields in detail:

Field	Description	Туре	Optional
FOM_OBJECT	WTRA	text	Ν
GEOMETRY	BC Albers (EPSG:3005) or WGS 84 (EPSG:4326 and EPSG:3005) coordinate reference system	Polygon	Ν

Property Format

This table specifies the description and format of required properties. All attribute table fields must be formatted as text, including the date field.

Property	Description	Value Format
FOM_OBJECT	Describes the feature (Cutblock, Road, WTRA)	text
GEOMETRY	Indicates if feature is a polygon or linestring	LineString
DEV_DATE	Planned date to start development	Date string in the format "YYYY-MM-DD"
NAME	Description/identifier for the spatial object	Text, maximum length 50 characters.

Replacing Spatial Data

How do I replace old spatial data with a new GeoJSON/JSON file?

- Upload new GeoJSON/JSON file. Follow the regular upload process to replace old data with a new GeoJSON/JSON file.
- 2. **Confirm upload:** Check the "Location" button on the "Summary Screen" to confirm successful upload or replacement.
- 3. **Publication:** Submitted data will be published overnight and will be visible in the public interface the next day.

Using ArcGIS

How should I use the "Features To JSON" tool in ArcGIS for geospatial submissions?

Depending on the version of ArcGIS you are using, ensure the "GeoJSON" box is checked prior to running the tool. (check image)

Note that in some versions, this box may need to be left unchecked. Refer to the specific documentation for your version to confirm the correct settings.

🔨 Features To JSON	– 🗆 ×
	GeoJSON (optional) If checked, output will be created as GeoJSON. • Unchecked—The output will be created as Esri JSON. This is the default. • Checked—The output will be created in the GeoJSON format.
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Handling Curves

What should I do with curves in my dataset?

! Important: The "Features To JSON" tool **does not accept curves** and d**oes not automatically convert them to lines**. Follow these steps to prepare your data:

1. Convert curves to lines:

- a. Option 1: Convert `.gdb` feature classes to ESRI Shapefiles `.shp`
- b. Option 2: Use the "densify" tool in ArcMap to replace curves with lines

2. Run the Features To JSON tool:

a. Ensure shapes contain no curves before using the tool

3. Alternative tools:

- a. Use the Feature Manipulation Engine
- b. Use the <u>`gdal`</u>tool

Contact Information

Who can I contact for more information if I still encounter issues?

Contact the team at nrsenquiries@gov.bc.ca