GIS SPATIAL DATA STANDARDS FOR 100 MILE HOUSE FOREST DISTRICT

A. General

1. The mapping is to be delivered as one or more ARC GIS, in Shape file (*.shp) format, using no compression when exported.
2. Each feature class must completely cover the study area.
3. All linework must be within 0.5 mm of source linework. (I.e., 10 m on 1:20,000 scale maps; 25 m on 1:50,000 maps; 100 m on 1:250,000 scale maps, etc.)
4. All digitized mapping to be registered to within .004m relative mean square of the corners of the maps being digitized.
5. Data coordinates will be in metres, single or double precision, in Arc/Info, and will be in Albers coordinates (see next item).
6. The maps or feature class will be supplied in Albers projection, NAD83. This may require a reprojection of the data, a datum shift, or both. The Albers parameters to use are those of the BC Environment standard:
    i. Projection: Albers Conic Equal Area
    ii. Central Meridian: -126.0 degrees
    iii. First standard parallel: 50.0 degrees
    iv. Second standard parallel: 58.5 degrees
    v. Latitude of reference: 45.0 degrees
    vi. False Easting: 1000000 meters
    vii. False Northing: 0 meters
    viii. Any datum shift must be performed using the Canadian National Transformation (CNT) matrix.
7. The data will be provided on CD or by electronic transfer (FTP or email). Other delivery methods may be acceptable, subject to approval by the Contract Coordinator.
8. Linework at the boundaries of adjacent UTM zones must be border matched to within 0.5 mm at source scale.
9. Transfer of lines and points from photo must be within 20m of location on photographs.
10. Where linework corresponds to water features in the source maps (or digital map files), the linework shall be exactly coincident with the basemap features. The linework may be altered slightly to ensure that linework border matches across mapsheets.
11. Attribute data will be supplied in a Geodatabase table with 1 to 1 join functionality or directly in the feature table.

B. Polygon Covers:

1. Feature classs must be topologically clean. Each polygon must contain exactly one polygon tag. All polygon boundary lines must be broken where they intersect, and all line endpoints must meet exactly.
    a. The Arc ‘BUILD POLY’ command must run without errors or warnings.
    b. The Arc ‘NODEERRORS’ command must report 0 dangling nodes.
    c. The Arc ‘LABELERRORS’ command must report no label errors, with the exception
        i. of polygon 1, which may be reported to have 0 label points.
    d. The Arc ‘BUILD ARC’ command must run without errors or warnings.
    e. The feature class shall contain no arcs that have the same polygon on both sides (i.e.,

i. no unclosed polygons or dangles).

2. The Arc Attribute Table field and the Polygon Attribute Table of the feature class must contain the item: FCODE 10 10 C
3. All polygon tags must be unique within the project.

C. Line Covers:

1. Feature class must be topologically clean. All lines must be broken where they cross, and line endpoints must meet exactly at intersections.
2. Lines representing continuous features (eg, streams, roads) must be continuous within the feature class (i.e., no gaps).
3. The Arc Attribute Table field of the feature class must contain the item: FCODE 10 10 C

D. Point Covers (Arc Export format):

Point covers are may be delivered either as Arc covers, or in an alternate format, as directed by the contract monitor. This section discusses requirements for point covers in arc export format; the section below describes specifications for the alternate format.

1. The Point Attribute Table of the feature class must contain the item: FCODE 10 10 C
2. All point tags must be unique within the project. .

E. Attribute Data

1. Attribute data will be supplied in the INFO .PAT/.AAT tables file when the data is supplied in Arc Export format. The following fields should be associated with the appropriate shapefile - 'WTP NUMBER' WTPs should be associated with numbers as there maybe 2-3 (or more) WTP's in a Unit. Each WTP should receive a number association, 1, 2, 3..... for specific WTP association. 'WTP ORIENTATION' field should be included as to whether the specific WTP is inside the block boundaries or outside the block boundaries. The WTP Orientation data field can be identified with a 'I' for Internal (within the block boundary or a 'E' for External (outside the block boundary). ‘UNIT NUMBER’ should be associated with every feature 'LICENSEE' The Licencee field containing ”BCTS” field should be included at the block shape.

F. Meta Data File

For each feature class delivered, there should be metadata included.

The table should have two items (columns):

1. Key: character, 16 wide.

2. Value: character, 170 wide. There should be at least four records in the table, with key values of:

- TITLE - Short name for this data
- DESCRIPTION - What kind of data is it?
- SOURCE - Where did this data come from?
- ACCURACY - How well does this data represent the earth?

Other possible key values are (as applicable):

- WARNING - Any warnings that users should see before they use this data.
- HISTORY - What is the origin of the data? What are the important stages/problems/etc. in its history?
- RESOLUTION - What is the minimum size of a unit or feature?
- REGISTRY - How is it referred to in the BC Environment data registry? Place the URL for entry in the data registry.
- PRODUCTION_DATE - When was it first created in ARC/INFO?
- MODIFIED - Date, agency or person, and how it was modified. For example: '07/95 (SSB) Add FCODE symbology.'
- ORACLE_NOTES - Does it link to Oracle data? How?
- FUTURE - What changes/additions/etc. are planned for this data and by whom?
- DISTRIBUTION - what limitations/copyrights are there on distributing it?
- OTHER - important, but doesn't fit into any of the other keywords.

MICROSTATION (.dgn) DATA STANDARDS

(From: 100 Mile House Forest District Digital Data Exchange Standards - Version 1-June 14, 2001)

1. Exhibit 'A' Spatial Data Specifications

a. UTM projection, Nad83, IGDS format, 2d. It is important that files be vector clean IGDS data. GPS Nad83 traverse data should be used when available.

b. Microstation Settings: Global origin set to: 4,-5296 Master Units: *km*; Sub-Units: *m*; Resolution *1000m/km, 1000 Positional Units/m*; Working Area: *4296 km square*.

c. Positional Vector clean polygons created with lines and line string elements with text nodes (shapes, complex chain or complex shapes - IGDS element type 6, 12 or 17 - are *not a*cceptable). Traverse station # 1 identified in the digital file or on the hard copy map.

d. Each feature class should be on a separate IGDS level, as follows: see FDP ~metadata.doc

e. All the information normally required for Exhibit 'A' headers must be submitted to enable Exhibit 'A' preparation by the MOF.

f. All requests / submissions to the MOF LIM section will be made through the Small Business Planner, MOF Engineering Officer or designated MOF Resource Assistant.

2. Plot files

a. HP 650 CE, HP 750 C or HP1055CM format.

3. Metadata:

a. Detailed metadata must be forwarded in a Readme.txt file with the submission package.