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WITHDRAWAL

May 2009

Directory Information Describing Digital Geo-Referenced Data Sets

This standard is hereby withdrawn. Its content is covered in CAN/CGSB-171.100-2009, North American Profile of ISO 19115:2003 — Geographic Information — Metadata (NAP — Metadata).

RETRAIT

Mai 2009

Information de répertoire décrivant les ensembles de données numériques à référence spatiale

Cette norme est retirée par le présent avis. Son contenu fait l'objet de CAN/CGSB-171.100-2009, Profil nord-américain de la norme ISO 19115:2003 — Information géographique — Métadonnées (PNA — Métadonnées).

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Directory Information Describing Digital Geo-Referenced Data Sets

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DIRECTORY INFORMATION DESCRIBING DIGITAL GEO-REFERENCED DATA SETS

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CANADIAN GENERAL STANDARDS BOARD

**DIRECTORY INFORMATION DESCRIBING
DIGITAL GEO-REFERENCED DATA SETS****1. SCOPE**

- 1.1 This standard provides a printed form that can be used to describe digital geo-referenced data sets. When filled out, it provides relevant information to potential users that can be used for the compilation of directory entries.
- 1.2 Explanations and instructions for completing the printed form can be found in Appendix A.

2. DEFINITION

- 2.1 The following definition applies in this standard:

Data Set

A collection of similar or related data having the same characteristics (source, processing level, resolution, etc.) but different independent variable ranges.

3. REQUIREMENTS

- 3.1 The following form outlines the minimum information needed for the compilation of a directory entry for digital geo-referenced data sets. Not all information requested on the form will be applicable to every data set.

Directory Information

Describing Digital Geo-Referenced Data Sets

A. Identification

1.0 Title of the Data Set

1.1 Official name: 1.1.1 English name: 1.1.2 French name:	1.2 Acronym: (if applicable)	1.3 Previous name: (if applicable) 1.3.1 English name: 1.3.2 French name:
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2.0 Owner

2.1 Department, agency, business, community, university, etc.		
2.2 Type of organization: (Check <u>one</u> only)		
☐ 01 Federal government ☐ 02 Provincial/Territorial government ☐ 03 Regional/Municipal government	☐ 04 University/Research institution ☐ 05 Private business ☐ 06 Non-Profit organization	☐ 07 Native organization ☐ 08 Other (specify): _____

3.0 Contact Person/Position

3.1 Scientific Contact (for questions on the scientific content of the data set)

Surname			Given Name	
Position				
Organization				
Suite #	Street #	Street name	City	Province or Territory/State
Postal code/Zip code		Country	Telephone ()	Fax ()
Electronic network address (e.g. Bitnet, Internet)				

3.2 Data Manager (for technical questions)

Surname			Given Name	
Position				
Organization				
Suite #	Street #	Street name	City	Province or Territory/State
Postal code/Zip code		Country	Telephone ()	Fax ()
Electronic network address (e.g. Bitnet, Internet)				

3.3 Contact for Access (for questions pertaining to access)

Surname			Given Name	
Position				
Organization				
Suite #	Street #	Street name	City	Province or Territory/State
Postal code/Zip code		Country	Telephone ()	Fax ()
Electronic network address (e.g. Bitnet, Internet)				

B. Description

4.0 Category of Data Set

Check the principal theme or themes. If none of the categories listed is appropriate, write the word that best describes the theme.

- | | |
|--|---|
| ☐ Agriculture (Including irrigation, machinery, horticulture) | ☐ Industry (Including tourism, excluding manufacturing) |
| ☐ Anthropology (Including physical anthropology, ethnology, social and cultural anthropology) | ☐ Land use (Including land cover, public lands, real estate, land tenure, urban & regional plans) |
| ☐ Aquaculture | ☐ Language |
| ☐ Archaeology | ☐ Manufacturing (Including leather, tobacco, animal, rubber industry, packaging) |
| ☐ Arts and crafts | ☐ Military |
| ☐ Biology | ☐ Mining and metallurgy |
| ☐ Botany | ☐ Natural disasters |
| ☐ Boundaries (Including political, administrative, regulatory, statistical, cadastral) | ☐ Natural resources (Including wildlife conservation, land conservation, fisheries) |
| ☐ Buildings | ☐ Oceanography (Including chemical oceanography, physical oceanography, dynamics of the ocean, marine sediments, marine resources, marine pollution) |
| ☐ Climatology and meteorology | ☐ Pests and diseases (Affecting flora and fauna) |
| ☐ Commerce (Including insurance) | ☐ Physics (Including radioactivity, geomagnetism) |
| ☐ Communications (Including postal service, telecommunication industry, telegraph, radio and television, telephone, artificial satellite telecommunications) | ☐ Political science |
| ☐ Cryogenics (Including permafrost) | ☐ Population (Including demographic and census data for both legislative/administrative and statistical standard geographic areas) |
| ☐ Ecology | ☐ Recreation (Including outdoor recreation, camping, hiking, wilderness survival, caving, parks and public reservations) |
| ☐ Economics (Including history, conditions, production, labour, revenue) | ☐ Remote sensing |
| ☐ Education | ☐ Sociology (Including human settlements, criminology) |
| ☐ Engineering | ☐ Soils |
| ☐ Environmental protection | ☐ Transportation (Including traffic engineering, roads and highways, streets, airports, airstrips, water transportation, railways, automotive transportation, stage lines, ferries) |
| ☐ Environmental pollution | ☐ Utilities (Including electricity, gas; excluding water supply) |
| ☐ Folklore, manners and customs | ☐ Waste (Including sewage collection and disposal systems) |
| ☐ Forestry | ☐ Water (Including supply and use for domestic and industrial purposes, saline water conversion, distribution systems) |
| ☐ Geodesy | ☐ Wildlife (Including birds, insects, fish, hunting, trapping, fishing) |
| ☐ Geography (Including topography, toponomy) | ☐ Zoology (Including animal behaviour) |
| ☐ Geology (Including mineralogy, petrology, dynamic and structural geology, stratigraphic geology, palaeontology) | ☐ Other (specify) _____ |
| ☐ Geomorphology (Including geotechnical data) | _____ |
| ☐ Geophysics (Including seismology) | _____ |
| ☐ Health and medicine (Including alcoholism, hygiene, public safety) | _____ |
| ☐ Human ecology (Including anthropogeography) | |
| ☐ Hydrocarbons | |
| ☐ Hydrology (Including ground water, rivers, lakes, glaciers, ice, snow) | |
| ☐ Hydrography (Including bathymetry, tides, currents, nautical charts) | |

5.0 Information On Data Set Content

5.1 Description of the data set: (A brief summary of the main features of the data set)

5.2 Current applications of the data set:

5.3 Is this data set: (Check all that apply)

- ☐ 01 Part of a larger data set. Specify: _____
- ☐ 02 Linked to other geographical data set(s). Specify: _____
- ☐ 03 Linked to non-geographical information. Specify: _____
- ☐ 04 Linked to specific legislation or regulations. Specify: _____

5.4 Variables and attributes or group of attributes:

5.5 Key words used to identify the principal elements: (Maximum of 10 key words)

- | | |
|-----------|-----------|
| 01) _____ | 06) _____ |
| 02) _____ | 07) _____ |
| 03) _____ | 08) _____ |
| 04) _____ | 09) _____ |
| 05) _____ | 10) _____ |

5.6 Language of the textual information: (Check one only)

- ☐ 01 English only ☐ 02 French only ☐ 03 English and French (bilingual) ☐ 00 Other (specify): _____

6.0 Areal Coverage

6.1 Identification of the area covered by the data set		
6.1.1 Spatial coordinates to describe the boundaries of the polygon and its location:	6.1.2 Jurisdictional/administrative unit:	6.1.3 Other geographical description: (e.g. physical features)
6.2 Is the areal coverage complete? ☐ Yes ☐ No 6.2.1 Explain if not complete:		6.3 Is the areal coverage uniform? ☐ Yes ☐ No 6.3.1 Explain if not uniform:

7.0 Vertical Coverage

7.1 Identification of the vertical coverage of the data set (where applicable):
7.2 Is the vertical coverage complete? ☐ Yes ☐ No 7.2.1 If not complete, which areas in the data are incomplete?
7.3 Is the vertical coverage uniform? ☐ Yes ☐ No 7.3.1 Explain if not uniform:

8.0 Time Coverage

8.1 Identification of the period of time covered by the data set (where applicable):
8.2 Is the time coverage complete? ☐ Yes ☐ No 8.2.1 If not complete, where and for which periods is the time coverage incomplete?
8.3 Is the time coverage uniform? ☐ Yes ☐ No 8.3.1 Explain if not uniform:

9.0 Data Updating

9.1 Date of last revision (YYYY-MM-DD):	9.2 Date of last scientific update (YYYY-MM-DD):
9.3 Frequency of updates: (Check <u>one</u> only)	
☐ 01 Daily	☐ 04 Quarterly
☐ 02 Weekly	☐ 05 Semi-annually
☐ 03 Monthly	☐ 06 Annually
	☐ 07 Every "n" years (specify): _____
	☐ 08 As required
	☐ 09 Not yet established
	☐ 99 Not applicable
	☐ 00 Other (specify)

10.0 Size of the Data Set

10.1 Number of : ☐ 01 Megabytes (uncompressed): _____ ☐ 02 Kilobytes (uncompressed): _____	10.2 Number of records: _____	10.3 Number of attributes per record: _____
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11.0 Details of Data Collection

11.1 Type of base map: (check all that apply) ☐ 01 Topographic map ☐ 02 Orthophoto map ☐ 03 Rectified photo map ☐ 04 Planimetric map ☐ 05 Orthophotos ☐ 99 Not applicable ☐ 00 Other (specify): _____		
11.2 Date of data collection: 11.2.1 Date (YYYY-MM-DD): _____		11.2.2 or range of dates: From _____ Year _____ To _____ Year _____
11.3 Sources of the data. 11.3.1 Primary source: (check <u>one</u> only) ☐ 01 Remote sensing: ☐ 03 Field measurements ☐ 02 Conventional photography ☐ 00 Other (specify): _____ 11.3.2 Secondary source: (check all that apply) ☐ 01 Maps ☐ 00 Other (specify): _____ ☐ 02 Reports		
11.4 Circumstances and other details associated with the data collection (e.g. sampling methodology, constraints such as those associated with population counts, special techniques used to obtain information, comments on the conversion process): 		
11.5 Map projection: (check <u>one</u> only) ☐ 01 Lambert conformal ☐ 04 Universal transverse mercator ☐ 99 Not applicable ☐ 02 Stereographic ☐ 05 Other mercator ☐ 00 Other (specify): _____ ☐ 03 Mercator ☐ 06 Polyconic		
11.6 Coordinate system(s): (check <u>one</u> only) ☐ 01 Latitude/Longitude ☐ 03 Bearings or azimuths and distances ☐ 02 Rectangular grid ☐ 00 Other (specify): _____		
11.7 Geodetic datum: 11.7.1 Horizontal datum : (check <u>one</u> only) ☐ 01 NAD27 Date (YYYY) ☐ 02 NAD83 ☐ 03 AT577 ☐ 04 Not known ☐ 99 Not applicable ☐ 00 Other (specify): _____		11.7.2 Vertical datum (check <u>one</u> only) ☐ 01 Mean sea level (CGD 28) ☐ 05 Not known ☐ 02 NAVD88 ☐ 99 Not applicable ☐ 03 IGLD55 ☐ 00 Other (specify): _____ ☐ 04 IGLD85
11.8 Scale or resolution 11.8.1 Scale or resolution at which the information was collected: 11.8.1.1 1: _____ 11.8.1.2 or range of scales from 1: _____ to 1: _____		
11.8.2 Scale at which the information was entered into the data set: 11.8.2.1 1: _____ 11.8.2.2 or range of scales from 1: _____ to 1: _____		
11.8.3 Pixel resolution : X: _____ metres, Y: _____ metres.		
11.9 Positional accuracy: (check <u>one</u> only) ☐ 01 Absolute accuracy Horizontal +/- _____ metres Vertical +/- _____ metres. ☐ 02 Relative accuracy Horizontal +/- _____ metres Vertical +/- _____ metres. ☐ 03 Not known ☐ 00 Other accuracy (indicate any grid correction): _____		
11.10 The relation to the adjoining maps is ☐ 01 Seamless ☐ 02 Discontinuous		

12.0 Data Quality

12.1 Comments about quality:

C. Availability

13.0 Access Policy: (product or distribution policy)

13.1 Type of access: (check one only)

☐ 01 Public access

☐ 02 Limited access (explain): _____

☐ 03 No access

13.2 Liability disclaimers:

13.3 Security restrictions:

13.4 Copyright status:

14.0 Charges

14.1 Browsing/Searching \$

14.2 Acquisition \$

14.3 Royalty \$

14.4 To be determined ☐

14.5 Other (specify):

\$

15.0 External Communication

15.1 Physical (e.g. Direct Connect, DataPac, Phone Link, Network Access):

15.2 Protocols (e.g. DEC-DNA, HDLC, MAP, KERMIT, XMODEM):

16.0 Data Set Media

State the medium or media on which data could be made available: (check all that apply):

☐ 01 Paper media

☐ 03 Magnetic media

☐ 00 Other (specify): _____

☐ 02 Photographic media

☐ 04 Optical media

D. Structure

17.0 Host Computer(s)

17.1 Type: (check at least one, more if applicable)

☐ 01 PC/Microcomputer

☐ 03 Minicomputer

☐ 02 Workstation

☐ 04 Mainframe

17.1.1 Make(s) and model(s):

17.2 Operating system: (check at least one, more if applicable)

☐ 01 DOS, Version _____

☐ 03 VMS, Version _____

☐ 00 Other (specify): _____

☐ 02 UNIX, Version _____

☐ 04 OS/2, Version _____

18.0 Structure Type

System:	
18.1 GIS (e.g. VISION*, PAMAP, Arc/Info, Spans) Specify system and version: _____	18.1.1 Digital Interchange Format (e.g. ISIF, DXF, DLG) Specify system and version: _____
18.2 DBMS (e.g. FoxPro, dBase IV, Oracle, Ingres) Specify system and version: _____	18.3 Other computerized mapping (e.g. Autocad) Specify system and version: _____
18.4 Is the data base ☐ 01 distributed ☐ 02 replicated	
18.5 Describe the linkage of graphic features to attributes:	

19.0 Data Structure (Graphic Data Elements Only) (check all that apply)

File Data Structure (Graphics Data Elements Only) (Check all that apply)

☐ 01 Point	☐ 04 Line
☐ 02 Raster	☐ 05 Vector: Degree of topology ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4
☐ 03 Alphanumeric	☐ 00 Other (specify): _____

E. References

20.0 Documentation Available

For each document the following information should be provided:

- full bibliographic reference
- type of documentation (e.g. user manual, data description, source information, scientific publication, report, data quality statement, specifications)
- language used (English, French, other)
- media (paper, photographic, magnetic, optical)

[illegible]

(Attach additional page if necessary)

21.0 Demonstration/Tutorial Available: ☐ Yes ☐ No
--

22.0 Provider of Directory Information

Surname		Given Name	
Position			
Organization			
Telephone ()	Fax ()	Electronic network address (e.g. Bitnet, Internet)	Date survey form completed: (YYYY-MM-DD)

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EXPLANATIONS AND INSTRUCTIONS

A. Identification**1.0 Title of the Data Set**

1.1 Official name. An official name is required for the data set. Ideally, it will be precise.

1.2 Acronym. If an acronym is not commonly used to refer to the data set, leave the space blank.

1.3 Previous name. Name(s) by which the data set was formerly known.

2.0 Owner

The name of the firm, organization, department, agency, university or individual who owns the data set. In the case of federal government data sets, give the name of the department. In the case of data sets owned by other levels of government, write the name of the government.

3.0 Contact Person/Position

The person(s) that potential users may wish to contact to receive further information. When completing the address information, it is recommended that the two-letter symbol for the province or state be used in accordance with the Canadian Addressing Standard (Note 1). Also, it is recommended that the entity name (short name) of the country be used in accordance with CAN/CGSB-200.4/ISO 3166 (Note 2).

3.1 Scientific Contact. The person to whom questions about the scientific content of the data set should be addressed.

3.2 Data Manager. The person to whom technical questions should be addressed.

3.3 Contact for Access. The person to whom enquiries should be made for access to the data set.

B. Description**4.0 Category of Data Set**

Name the principal theme or themes of the data set from the list given. If none of them is appropriate, write in the word that best describes the data set.

5.0 Information on Data Set Content

5.1 Description of the data set. A brief summary of the main features of the data set.

5.2 Current applications of the data set. Where there are many applications, make a general statement and provide some examples. If possible, include the name of the user agency and how the data are utilized. If there are multiple users of the data, give examples of typical users to the extent known. Also, indicate if there are no users of the data.

5.3 Is this data set part of a larger data set or linked to other geographical or non-geographical information or specific legislation or regulations? Linkages may be to a directory, catalogue or other data set.

5.4 Variables and attributes, or group of attributes. The types of individual observations that the data set contains (e.g. a topographic map data set would include roads, lakes, streams, contours, etc., while a data set of water quality statistics may contain chemical and biological analyses, observation dates and the location of water samples).

Note 1: This standard is available from Canada Post Corporation, Mail Standards and Testing, Suite N0740, 2701 Riverside Dr., Ottawa, Ontario K1A 0B1.

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- 5.5 **Key words used to identify the principal elements.** The list should include the category name as well as additional elements useful in searching for candidate data.
- 5.6 **Language of the textual information.** The language chosen by the data set manager for entry into the system.
- 6.0 **Areal Coverage**
- 6.1 **Identification of the area covered by the data set.** Using the sections below, indicate the area(s) covered in the data set.
- 6.1.1 **Spatial co-ordinates to describe the boundaries of the polygon and its location.** The common representation of parallel and meridian lines displayed in many map projections. Where possible, provide the decimal degrees of latitude and longitude for each vertex of the bounding polygon.
- 6.1.2 **Jurisdictional/administrative unit.** Where small administrative units are identified (e.g. municipalities), indicate the name of the larger unit within which it is found (e.g. Paris, Ontario). These may include political boundaries and ownership boundaries (e.g. private lands).
- 6.1.3 **Other geographical description.** Indicate any physical features that will help to identify the areal extent of data coverage.
- 6.2 **Is the areal coverage complete?** The extent of the data contained in the data set need not be, and frequently is not, 100% of the potential coverage. A forest inventory data set for the province of Saskatchewan has a potential for covering the entire province even though it would not contain data for unforested areas in southern regions.
- 6.2.1 **Explain if not complete.** An example would be a data set for the province of British Columbia, where the whole province is covered except for Indian Reserves.
- 6.3 **Is the areal coverage uniform?** Were the data collected the same way throughout the area?
- 6.3.1 **Explain if not uniform.** Non-uniformity might result from different criteria being used for different areas, or different techniques (e.g. remote sensing imagery may have been used for part of the data set, and field survey for another part). The more precise this response can be, the more helpful it will be to potential users.
- 7.0 **Vertical Coverage**
- 7.1 **Identification of the vertical coverage of the data set (where applicable).**
This may be illustrated by contour lines, spot heights, isobaths, etc. Provide contour intervals and other relevant details to describe the extent and accuracy of coverage.
- 7.2 **Is the vertical coverage complete?** Have the data been gathered for all of the coverage identified above?
- 7.2.1 **If not complete, which areas in the data are incomplete?** Identify areas where vertical information is missing.
- 7.3 **Is the vertical coverage uniform?** Were the data collected in the same manner throughout the area?
- 7.3.1 **Explain if not uniform.** Examples of non-uniformity are the use of two different contour intervals or the use of contours in one area and spot heights in another.
- 8.0 **Time Coverage**
- 8.1 **Identification of the period of time covered by the data set (where applicable).** Some data sets will apply to several different dates, years or centuries. Others will apply to a single time (e.g. hour, day, month, year, etc.).
- 8.2 **Is the time coverage complete?** In other words, have data been gathered for all the identified dates or times?
- 8.2.1 **If not complete, where and for which periods is the time coverage incomplete?** An example would be in a data set covering Canada every year from 1881 to 1991 where there is no information for the Yukon and the Northwest Territories before 1941.

- 8.3 **Is the time coverage uniform?** Another way of saying this is, “Were the data collected in the same way for each time period?”
- 8.3.1 **Explain if not uniform.** Non-uniformity might result from different criteria or methodology being applied at different times.
- 9.0 **Data Updating**
- 9.1 **Date of last revision.** Provide the date of the most recent additions or alterations to the data set (e.g. editing or reformatting).
- 9.2 **Date of last scientific update.** Provide the date of the most recent additions or alterations to the scientific information in the data set.
- 9.3 **Frequency of updates.** Indicate the time period that corresponds to the frequency with which the database is updated.
- 10.0 **Size of the Data Set**
- 10.1 **Number of megabytes or kilobytes (uncompressed).** For data that is compressed, provide the number of megabytes or kilobytes when expanded to usable form.
- 10.2 **Number of records.** A record is a set of data elements treated as a unit. A record is a subdivision of a file.
- 10.3 **Number of attributes per record.** This refers to the number of elements identified for each record. For example, a file may include the names of 100 towns (i.e., 100 records) and for each town there may be 10 attributes (e.g. population size, number of schools, average income).
- 11.0 **Details of Data Collection**
- 11.1 **Type of base map.** Base maps may be any surface representation used as a foundation for thematic data (e.g. topographic maps, planimetric maps, orthophoto maps, orthophotos, rectified photo-mosaics). Some data sets are simply base maps that carry no additional thematic data.
- 11.2 **Date of data collection.**
- 11.2.1 **Date.** Record a specific time, day, month, year, etc. for data that were not collected over a span of time.
- 11.2.2 **or range of dates.** Provide the earliest and the most recent dates for data that were collected over a period of time.
- 11.3 **Sources of the data**
- 11.3.1 **Primary source.** Data taken directly from measuring mechanisms, e.g. *Remote sensing* data are typically obtained from satellite-based observations, aerial photographs, airborne electromagnetic surveys, etc. These may be raw sensor data in digital form, enhanced sensor data in digital form, enhanced sensor data in combination with map data in digital form, interpretations of digital or hard copy images by either image analysis or human inspection or both, to yield thematic data. *Conventional photography* may be in black-and-white or colour, infrared, or other categories. *Field measurements* refer to data resulting from measurement of phenomena made by field survey such as wildlife counts, survey measurements, gravity observations, timber cruising, weather station observations, topographic surveying, hydrographic measurements.
- 11.3.2 **Secondary source.** Data obtained from second-hand sources such as maps, reports, and other documentation.
- 11.4 **Circumstances and other details associated with the data collection.** For example, sampling methodology, constraints, special techniques for data collection. The process for converting raw data to that found in the data set should be described.
- 11.5 **Map Projection.** The convention used to display the curved surface of the earth on a flat map. The name of the map projection used is usually given on a printed map sheet. It may be necessary to find the projection from the source of the base map. List data (e.g. statistical data sets) related to coordinate locations will have no map projection.

- 11.6 **Co-ordinate System(s).** Normally **latitude and longitude** will be used.
- Rectangular Grid.** If a rectangular grid (with divisions given in unit measures such as metres or feet) is employed, it must be able to be tied into a horizontal geodetic datum and the details of the appropriate datum given below.
- Bearings or azimuths and distances.** The combination of angles and distances used in many descriptions of property boundaries. They must be able to be tied into latitude and longitude or coordinate points which themselves are related to some horizontal geodetic datum described below.
- 11.7 **Geodetic Datum.** A known point of origin for a coordinate system (horizontal) or a known level (vertical) for a series of elevations.
- 11.7.1 **Horizontal Datum.** Three common horizontal datum systems are the 1927 North American Datum (NAD27) with initial point at Meades Ranch in Kansas, the 1977 Average Terrestrial System (ATS77) with origin about four metres from the geocentre, and the 1983 North American Datum (NAD83) with origin at the geocentre.
- 11.7.2 **Vertical Datum.** In North America, four vertical datum choices may be referenced: the Mean Sea Level or the Canadian Geodetic (height) Datum of 1928 (CGD28) (NAVD29 in United States); the International Great Lakes Datum of 1955 with origin at Rimouski, Quebec (IGLD55); the International Great Lakes Datum of 1985 with origin at Rimouski, Quebec (IGLD85); and the North American Vertical Datum of 1988 with origin at Rimouski, Quebec (NAVD88).
- 11.8.1 **Scale or resolution at which the information was collected.** This information provides some indication of the accuracy of the data and the degree of generalization.
- 11.9 **Positional accuracy.** This question should be answered only if the accuracy and resolution are known and published, or if a reasonable estimate based on sound technical knowledge is available. **Absolute positional accuracy** is an estimate of the error (either **horizontal** or **vertical**) in the location of features in the data set with respect to published geodetic control survey station co-ordinates or elevations for a specific geodetic datum. This is expressed as the plus-or-minus error (standard deviation) of the feature locations. **Relative accuracy** is an evaluation of the random errors in determining the positional orientation (e.g. distance, azimuth) of one point or feature with respect to another. **Other accuracy.** This option is provided for cases where other accuracies are more relevant to the user of the data (e.g. confidence limits on the accuracy of soil type identification, percentage limits on components of complex classification type, or percent potential error of areas of crops given on an agriculture map).
- 11.10 **Is the relation of adjoining maps seamless or discontinuous?** Seamless refers to a database where the edges of adjoining maps are invisible. In a discontinuous database, the edges of adjoining maps are apparent; for example, features do not cross over for various reasons, such as different publication dates, differing methods for data collections, change in projection or scale.
- 12.0 **Data Quality**
- 12.1 **Comments about data quality.** If quality studies have been carried out, or if there is regular evaluation of the accuracy of the data, please refer to relevant reports. Comments about quality will provide a guideline to the value of the data for future use.
- C. **Availability**
- 13.0 **Access Policy.** This section should identify the conditions under which access to the data is possible.
- 13.1 **Type of access**
- Public access.** Access to the data is not restricted.
- Limited access.** Identify sectors of society who may not access the data set, or any portions of the data set that cannot be made available to all users.
- No access.** In the rare instance when normally no outsider will be provided access to the data, this should be identified here. Reference to future availability of the data set might be made.
- 13.2 **Liability disclaimers.** Disclaimers may refer to the quality or completeness of the data set, or value for specific purposes for which the data were not originally collected.

- 13.3 **Security restrictions.** These might apply to the transmission of information or to the data set itself.
- 13.4 **Copyright status.** State whether the data are in the public domain or are copyrighted with some type of restrictions on usage or transmission.
- 14.0 **Charges**
Any fees associated with **browsing, searching** or **acquisition** of the data should be identified. They could include such things as costs of transmission, specified charges, costs of copying or **royalties**. Included under "Other" might be that charges are negotiable, available on an exchange basis, or available on a cost-recovery basis.
- 15.0 **External Communication**
- 15.1 **Physical communication.** Those links through which a data set can be accessed.
- 15.2 **Protocols.** The means of sending binary (files and text) information over communication lines.
- 16.0 **Data Set Media**
Paper media includes paper cartographic maps, trace recordings, photographs, computer printouts and cards. **Photographic media** includes microforms, photographic film and photographic negatives. **Magnetic media** includes magnetic tapes (analog, digital, video, Bernoulli) and magnetic disks. **Optical media** includes WORM and CDROM.
- D. **Structure**
- 17.0 **Host Computer**
- 17.1 **Type.** The type(s) of primary computer used to process and store the data. State whether the computer is **PC/workstation, mainframe or minicomputer**.
- 17.1.1 State the **make(s) and model(s)** of the host computer(s).
- 17.2 Indicate the type of **operating system** and the version number.
- 18.0 **Structure Type.** The way that data are presented (e.g. through a database management system, geographical information system, or other structure).
- 18.1 **GIS.** Indicate the name of the GIS as well as the system and version.
- 18.1.1 **Digital Interchange Format.** Indicate the name of the DIF as well as the system and version.
- 18.2 **DBMS.** Indicate the name of the DBMS as well as the system and version.
- 18.3 **Other computerized mapping.** Mention any other computerized mapping used as well as the system and version.
- 18.4 **Distributed Data Sets.** A distributed data set has different parts of the data set located at different sites. In other words, to obtain an entire data set would require retrieving data from several places.
Replicated Data Sets. Multiple authorized copies of the data set are located at different sites.
- 19.0 **Data Structure (Graphic Data Elements Only).** The way in which graphic data elements are arranged within the data set. The basis for the file structure for graphics data only is required. Some of the terms requiring explanation are below.
Raster. A system of grid cells of uniform size within one data set.
Vector. A representation based on vector coordinates of graphic features. Five degrees of topology are identified:
Degree 0: A data set does not retain spatial relationships between spatial features. The points, arcs and polygons are isolated features. This is sometimes referred to as "spaghetti data."
Degree 1: Spatial relationships exist between selected significant points and arcs only. For example, end and intersections points of arcs are designated as significant points of arcs. An arc has a sense of direction going from the start-point to the end-point.

Degree 2: This observes first a degree one topology and retains explicit relationships between arcs and polygonal regions. For example, an arc retains the knowledge of which polygons are to the left and to the right of the arc.

Degree 3: This observes first a degree two topology and further retains relationships between polygons and surfaces.

Degree 4: This observes first a degree three topology and retains further relationships between surfaces and volumetric features.

E. References

20.0 Documentation Available. Indicate any documents that would help a potential user to understand, evaluate and use the information in the data set such as a data dictionary, data models (conceptual, relational, functional, object-oriented or other) and the representation formalism (individual, entity-relationship or other).

21.0 Demonstration/Tutorial Available. This refers to demonstrations and tutorials in person, or on film, video, diskette, etc.

22.0 Provider of Directory Information. Indicate the person providing the information requested by this form.

Withdrawn/Retirée