

METADATA DETAIL PAGE

Ontario Land Information Directory of Metadata for Geospatial Information Holdings

This is a selection from the Ontario Land Information Directory for Metadata Holdings. The following represents the Basic description of an information holding. To obtain more information about this holding, see the section named \"Contacts\".

PAGE DE DÉTAIL DE MÉTADONNÉES

Répertoire de l'information de terre d'Ontario de Métadonnées pour des possessions de l'information Geospatial

C'est une sélection à partir du répertoire de l'information de terre d'Ontario pour des possessions de Métadonnées. Ce qui suit représente la description de Basic d'une exploitation de l'information. Pour obtenir plus d'informations sur cette possession, voyez la section nommée \"Contacts \".

Metadata Currency Date: Tuesday, April 19, 2005

Contributing Agency: MINISTRY OF NATURAL RESOURCES

Business Theme: ENVIRONMENT
FOREST MANAGEMENT
WATER
WATER MANAGEMENT

CITATION

Title: Digital Elevation Model - Version 2.0.0 - Provincial Tiled Dataset (DEM)

Abstract:

A 3-dimensional raster data set which captures terrain elevations and covers the province of Ontario to the 51st parallel composed of 150 tiles. Cell resolutions are 20 metres in northern Ontario and 10 metres in southern Ontario

The provincial DEM was interpolated using five main datasets:

- i) Contour Line
- ii) OBM-DTM
- iii) Spot Height
- iv) Water Poly Segment
- v) Water Virtual Flow

The DEM is used for mapping hydrologic features (e.g. watersheds, stream networks) and is an essential data layer for surface water and groundwater flow modelling.

The Provincial DEM is also used for a broad range of studies related to the fields of hydrology, forestry, ecology and climatology.

Purpose:

The provincial DEM is used for mapping hydrologic features (e.g. watersheds, stream networks) and is an essential data layer for surfacewater and groundwater flow modelling. The Provincial DEM is also used for a broad range of studies related to the fields of hydrology, forestry, ecology and climatology.

Time Coverage: Sunday May 1, 2005 to Monday May 1, 2006

Time Coverage Comments:**Progress:**

On-going

Data Maintenance Cycle:

As Needed

Access constraints:

None

Use constraints:

None

Authority/Requirement for holding:

None

Native Data-set Processing Environment:

ArcGIS software was used to process, analyze and assemble the input elevation datasets. The DEMs were interpolated using ANUDEM 5.1.0 software. Final mosaicing of the DEM product was performed in ArcGIS software.

Native Data-set Format:

GIS Database: The DEM tiles are binary files stored in the SNIF packaged-product format

Retention Period:

Keyword Agency Thesaurus:

MINISTRY OF NATURAL RESOURCES

Keywords:

DIGITAL ELEVATION MODEL ()
DIGITAL TERRAIN MODEL ()
DIGITAL TOPOGRAPHIC DATA BASE ()
ELEVATION ()
MODELS ()
WATER ANALYSIS ()
WATERSHEDS ()

GEOSPATIAL INFORMATION

Geographic Extent (Latitude - Longitude Boundaries that indicate the general global location for which the dataset/information holding is related to.):

Feature 1:

Place Name: LAT-LON BOUND

Coordinate: North Lat. : 51° 0' 0" N South Lat. : 42° 0' 0" N

East Long. : 74° 0' 0" W

West Long. : 95° 0' 0" W

Geographic completeness:

100% Complete

MAPPING INFORMATION:

Grid Coordinate System Used:

Universal Transverse Mercator

Map Projection:

Transverse Mercator

Horizontal Geodetic Datum:

NAD83

Vertical Datum:

CGD28 - CDN

Position Accuracy of Features:

Horizontal: Precise: +/- 10 m

Vertical: Reliable: +/- 5 m

DATA SOURCE INFORMATION

Data Source Type: Digital Map File

Source Contribution:

The OBM Contour dataset was used to interpolate elevations for the DEM. In areas where OBM DTM data was not collected in the province, OBM Contour and OBM Spot Height datasets were used as the primary datasets to derive elevations for the DEM. Input elevation datasets were used to interpolate DEM elevations using ANUDEM 5.1.0 software.

Source Currentness Reference:

OBM Contour data was collected through the OBM program and updated between 01/01/1976 to 01/01/2002.

Other Compiled Data Source Information

Originator Organization -

Ontario Ministry of Natural Resources, SIRD, GIB, Base Data Infrastructure

Title and Acronym -

OBM Contour (Contour)

Source Abbreviated Description -

OBM Contour is a linear vector layer representing isolines, or lines of equal elevation, in metres above sea level. Two contour intervals exist in the province: 5m for southern Ontario and 10m for northern Ontario.

Data Source Type: Digital Map File

Source Contribution:

The Water Virtual Flow dataset was used to enforce flow in the DEM to ensure that drainage will occur in the down-slope direction. Input elevation datasets were used to interpolate DEM elevations using ANUDEM 5.1.0 software.

Source Currentness Reference:

Water Virtual Flow data was collected through the OBM program and updated between 01/01/1976 to 01/01/2002.

Other Compiled Data Source Information

Originator Organization -

Ontario Ministry of Natural Resources, SIRD, GIB, Water Resources Information Program

Title and Acronym -

Water Virtual Flow ()

Source Abbreviated Description -

Water Virtual Flow is a vector dataset depicting the stream network for the province and includes connected flow lines through waterbodies (lakes and double-lined rivers).

Data Source Type: Digital Map File**Source Contribution:**

The OBM DTM is a dataset was first filtered to correct for a striping artefact present within the data. Input elevation datasets were used to interpolate DEM elevations using ANUDEM 5.1.0 software.

Source Currentness Reference:

OBM DTM data was collected through the OBM program and updated between 01/01/1976 to 01/01/2002.

Other Compiled Data Source Information**Originator Organization -**

Ontario Ministry of Natural Resources, SIRD, GIB, Base Data Infrastructure

Title and Acronym -

OBM Digital Terrain Model points (OBM DTM)

Source Abbreviated Description -

OBM DTM is a dataset of Digital Terrain Model points. These are elevation points were captured using photogrammetry. Points were captured to represent elevation at greater detail than obtained with

OBM Contours. OBM DTM data coverage is only available for approximately 7013655150f the province, south of 51 degrees latitude.

Data Source Type: Digital Map File

Source Contribution:

The OBM Spot Heights were incorporated into the DEM in two ways:

i) identifying elevations for Water Features Area polygons (lakes and double-lined rivers). Water Features with valid elevations were then converted into shoreline contours to add into the interpolation process for the DEM, and;

ii) Spot Heights were used in conjunction with the Contour dataset to add addition elevation points during the interpolation process. The data set was first filtered to ensure that Spot Height elevations conformed with the adjacent contours.

Input elevation datasets were used to interpolate DEM elevations using ANUDEM 5.1.0 software.

Source Currentness Reference:

OBM Spot Height data was collected through the OBM program and updated between 01/01/1976 to 01/01/2002.

Other Compiled Data Source Information

Originator Organization -

Ontario Ministry of Natural Resources, SIRD, GIB, Base Data Infrastructure

Title and Acronym -

OBM Spot Height (Spot Height)

Source Abbreviated Description -

OBM Spot heights are an elevation layer representing elevation in metres above sea level. These points were generated with less

density than the OBM DTM dataset and identify local minima and maxima (e.g. hilltops, road/rail crossings, vertical control points and lake water levels) within the OBM project.

Data Source Type: Digital Map File

Source Contribution:

The Water Feature Area dataset was used to identify all lakes, reservoirs and double-lined rivers in the province. In cases where water features were assigned elevations photogrammetrically during the OBM program, an OBM Spot height was associated with each feature. By spatially relating the OBM Spot Height dataset with lake polygons, consistent lake elevations were identified. These lake elevations were then used to construct a lake contour dataset which was integrated into the DEM for additional elevation information.

Source Currentness Reference:

Water Feature Area data was collected through the OBM program and updated between 01/01/1976 to 01/01/2002.

Other Compiled Data Source Information

Originator Organization -

Ontario Ministry of Natural Resources, SIRD, GIB, Base Data Infrastructure

Title and Acronym -

Water Feature Area ()

Source Abbreviated Description -

Water Feature Areas are polygon vectors representing water features (lakes, reservoirs, double-lined rivers and wetlands). This derived class has been created to increase drawing performance. It is a spatial consolidation of geographic units, belonging to the Water Area, Permanent data type within a specific spatial extent,

into one object

DISTRIBUTION

General Distribution Information:

Depending on any sensitivity or security issues associated with this information holding, all, some or none of the information may be available for viewing or distribution. All data requests are channeled through the Ministry of Natural Resources - Information Access Services.

Information Access Services, (IAS) is responsible for providing access to a number of MNR products and services to support Ministry Goals and Objectives. IAS develops and administers policy relating to access, valuing and pricing of MNR information and protection of intellectual property.

Signed Licenses and Agreements may be required.

Refer to the Distribution Contact details for information on how to contact Information Access Services with your request.

Some Information Holdings may be available for internet/online viewing - Free of charge through the Ontario Land Information Warehouse. Follow the link provided under Online Distribution Browsing to find out if this information holding is available for online viewing.

Fees:

Online Distribution: Free of charge

Ad-hoc Data Requests: Please contact distribution/publisher contact for specific details

Languages Available: English

Non-Digital Data:

Average Mapping Scale:

Data Formats:

Offline Digital Data:**Average File Size:** 16000.00**File Formats:** ASCII - American Standard Code for Information Interchange,
DEM - Digital Elevation Model Format,**Media Types:** CD-ROM,
FTP (address must be supplied by user),
4 mm Cartridge Tape (tape must be supplied by user)**VIEW DATA****On-Line Data Browsing:**

No information available.

On-Line Sample Data:

No information available.

CONTACTS**GENERAL INFORMATION CONTACT:****Organization**

/ Ministry of Natural Resources

Department:**Contact:** Mr. Kent Todd - Geomatics Analyst**Phone:** (705) 7555023 - Ext:**Fax:** (705) 7552184 - Ext:**Email:** kent.todd@mnr.gov.on.ca**Cellular
Phone:** ()**TDDTTY
Phone:** () - Ext:**Other
Phone:** () - Ext:**Language:** English**DISTRIBUTOR / PUBLISHER CONTACT:****Organization**

/ Ministry of Natural Resources

Department:

Contact: - Land Information Ontario - Support
Phone: (705) 7551878 - Ext:
Fax: () - Ext:
Email: info-access@webmail.mnr.gov.on.ca
Cellular
Phone: ()
TDDTYT
Phone: () - Ext:
Other
Phone: () - Ext:
Language: English

AUTHOR - ORIGINATOR / DATASET CUSTODIAN:**Organization**

/ Ministry of Natural Resources

Department:

Contact: Mr. Kent Todd - Geomatics Analyst
Phone: (705) 7555023 - Ext:
Fax: (705) 7552184 - Ext:
Email: kent.todd@mnr.gov.on.ca
Cellular
Phone: ()
TDDTYT
Phone: () - Ext:
Other
Phone: () - Ext:
Language: English

METADATA CUSTODIAN / CONTACT:**Organization**

/ Ontario Ministry of Natural Resources

Department:

Contact: Mr. Kent Todd - Geomatics Analyst
Phone: (705) 7555023 - Ext:
Fax: (705) 7552184 - Ext:
Email: kent.todd@mnr.gov.on.ca
Cellular
Phone: ()
TDDTYT
Phone: () - Ext:
Other
Phone: () - Ext:
Language: English

Supplemental Information / Additional Metadata:

Metadata Date: Tuesday, April 19, 2005

Copyright © Ministry of Natural Resources of Ontario

This information is provided as a public service by the Government of Ontario, Canada



[© Queen's Printer for Ontario, 2004](#)

This Web Site has been created as a public service by the Ministry of Natural Resources of the Government of Ontario. Every reasonable effort has been made to ensure the currency and accuracy of the information presented at the Site. However, the Government of Ontario assumes no responsibility and Users of this Site should verify the information from other sources prior to making decisions or acting upon it.



Site mis à jour par le gouvernement de l'Ontario (Canada)

[© © l'imprimante de la Reine pour Ontario, 2004](#)

Ce site Web a été créé comme service public par le ministère des ressources naturelles du gouvernement d'Ontario. Chaque effort raisonnable a été fait d'assurer la devise et l'exactitude d'information présentée au site. Cependant, le gouvernement d'Ontario suppose qu'aucun responsabilité et utilisateur de ce site ne devrait vérifier l'information d'autres sources avant de prendre des décisions ou d'agir sur elle.
