

# Land Information Ontario Data Description

## NTS 250 Grid

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# LIO Class Catalogue

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## NTS 250 Grid

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**Class Short Name:** NTS250GR

**Version Number:** 3

**Class Description:**

A grid series composed of 89 grid cells at a scale of 1:250 000.

**Abstract Class Name:** SPSTPOLY

**Abstract Class**

**Description:**

Spatial Single-Tessellating-Polygon: An object is represented by ONE and ONLY ONE polygon. Polygons may NOT overlap. ALL features in the data class MUST be classified, meaning that HOLES, GAPS or OVERLAPS are NOT allowed. Example: "Provincial Riding", where all areas of Ontario are divided into electoral ridings.

## Tables in LIO Class:

### NTS 250 Grid

#### NTS\_250\_GRID\_FT

A grid series composed of 89 grid cells at a scale of 1:250 000.

Column Name	Column Type	Mandatory	Short Name	Valid Values
<b>OGF_ID</b>	NUMBER(13,0)	Yes	OGF_ID	
A unique numeric provincial identifier assigned to each object.				
<b>UTM_ZONE</b>	NUMBER(2,0)	No	UTM_ZONE	
<b>NTS_SHEET_IDENTIFIER</b>	VARCHAR2(11)	No	NTS_SHEET	
<b>OFFICIAL_NAME</b>	VARCHAR2(75)	No	NAME	
<b>LOCATION_ACCURACY</b>	VARCHAR2(25)	Yes	ACCURACY	Not Applicable, Over 10,000 metres, Within 1 metre, Within 10 metres, Within 10,000 metres, Within 100 metres, ... (See LOCATION_ACCURACY_LIST table)
The degree of conformity or closeness of a measurement within the database to its true value in the world.				
<b>LOCATION_DESCR</b>	VARCHAR2(2000)	No	LOC_DES	
Description of the area or directions on how to get to the site.				
<b>GEOG_UNIT_DESCR</b>	VARCHAR2(2000)	No	GUNT_DES	
Detailed description of the Geographic Unit.				
<b>SENSITIVITY_CLASS</b>	VARCHAR2(15)	Yes	SENS_CLASS	
The ranking of the sensitivity of the information embodied in the feature. Often wide-spread knowledge of the location of some rare aspect of our natural heritage will endanger it. On the other hand, this knowledge by some parties is also extremely important for its protection. High - information that is extremely sensitive and intended for use by named individuals only. Refers to information that could have negative impacts on human life or health if released. Currently no data classes meet this Medium - information that is sensitive and intended for use only by specified groups of employees and approved agents of the Crown. For OLIW/NRVIS refers to information where the entire data type has been flagged as sensitive (i.e. Stick Nests for Vulnerable Threatened and Endangered (VTE) species) Low - information generally available to employees and approved agents of the Crown. Refers to sensitive features within a data type not normally sensitive (i.e. specific instances of Pileated Wood pecker) Non-Sensitive - data and information that does not fall into any of the three sensitivity levels. If disclosed will not result in any injury to individuals, government or private sector institutions (i.e. base data).				
<b>SENSITIVITY_DATE</b>	DATE	Yes	SENS_DATE	
The date that the sensitivity classification was established.				
<b>SENSITIVITY_RATIONALE</b>	VARCHAR2(50)	Yes	SENS_RAT	
The primary reason for the information sensitivity classification. Examples: "VTE Species", "Data Provider Agreement", "No Restriction Needed" (for Non-Sensitive data), "Protect Feature Type", "Protect Single Feature",				

"Legislative or Legal Req", "Cultural Heritage Site", "Other". Note: For Species at Risk (SAR) features, please use "Legislative or Legal Req" as a rationale.

<b>SENS_RATIONALE_OTHER_DESCR</b>	VARCHAR2(250)	No	SENS_DESCR
Description of the reason(s) for the information classification when "Other" is selected as the rationale.			
<b>VERIFICATION_STATUS_FLG</b>	VARCHAR2(10)	No	VERISTT_FL
An indication as to whether a qualified employee has verified the existence of the geographic unit.			
<b>VERIFICATION_STATUS_DATE</b>	DATE	No	VERISTT_DT
Date that the geographic unit was verified/validated.			
<b>BUSINESS_EFF_DATE_FLG</b>	VARCHAR2(10)	No	BUSEFFDTFL
Indication of whether the business effective date is an actual or estimated value.			
<b>BUSINESS_EFFECTIVE_DATE</b>	DATE	No	BUS_EFF_DT
Date that the record becomes effective in relation to the business i.e. the date MNR became aware of its existence.			
<b>BUSINESS_EXPIRY_DATE</b>	DATE	No	BUS_EXP_DT
A date indicating when the record was determined to be invalid.			
<b>SYSTEM_CALCULATED_AREA</b>	NUMBER(16,3)	No	SYS_AREA
The area of a polygon measured in square metres by the system.			
<b>SYSTEM_CALCULATED_LENGTH</b>	NUMBER(16,3)	No	SYS_LENGTH
The perimeter of a polygon or length of a line measured in metres.			
<b>USER_CALCULATED_METRIC</b>	NUMBER(16,3)	No	USER_CALC
The length, perimeter or area of an object in metres or square metres as measured or provided by the user.			
<b>GENERAL_COMMENTS</b>	VARCHAR2 (2000)	No	GNL_CMT
General comments.			
<b>GEOMETRY_UPDATE_DATETIME</b>	DATE	No	GEO_UPD_DT
Date/time the geometry was created or last modified in the source database.			
<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE
Date/time the record was created or last modified in the source database.			
<b>SHAPE</b>	SDO_GEOMETRY	No	SHAPE
Geometry attribute.			

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### **CLASS\_DATABASE\_REFERENCE**

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A link to an external database or an internal object in the same database.

<b>Column Name</b>	<b>Column Type</b>	<b>Mandatory</b>	<b>Short Name</b>	<b>Valid Values</b>
<b>OGF_ID</b>	NUMBER (13,0)	Yes	OGF_ID	
A unique numeric provincial identifier assigned to each object.				
<b>INTERNAL_EXTERNAL_FLG</b>	VARCHAR2 (10)	Yes	INT_EXT	Internal, External
A flag indicating if the database being referenced is internal (NRVIS/LIO) or external.				

<b>DATABASE_REFERENCE_IDENT</b>	VARCHAR2 (50)	Yes	IDENT
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Identifier of a reference that is linked e.g. Land Use Permit Number, LIS Number, the FMF Object ID of a Concrete Class.

<b>CLASS_SHORT_NAME</b>	VARCHAR2 (8)	Yes	CLASS_NAME
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Static short name that will be used by for the concrete class.

<b>DATABASE_REFERENCE_DETAIL</b>	VARCHAR2 (2000)	No	DETAIL
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Details on the rationale, use, dependency, or comments on the database reference. If a dependence on other data class geometry exists, this can be identified in this field.

<b>RELATED_CLASS_SHORT_NAME</b>	VARCHAR2 (8)	No	CLASS_NAME
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The static short name that is used by the related concrete class.

<b>EXT_REF_TYPE_CODE</b>	VARCHAR2 (8)	No	EXT_TYPE
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The type of external database that the identifier pertains to e.g. LUPS, LIS, etc.

<b>TYPE_OTHER_DESCR</b>	VARCHAR2 (60)	No	OTH_DESCR
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A full description of the type when set to "other".

<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

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### **CLASS\_JUSTIFICATION**

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The justification for the addition of or changes to a geographic feature.

Column Name	Column Type	Mandatory	Short Name	Valid Values
<b>OGF_ID</b>	NUMBER (13,0)	Yes	OGF_ID	

A unique numeric provincial identifier assigned to each object.

<b>JUSTIFICATION_REASON</b>	VARCHAR2 (2000)	Yes	REASON
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Reason for justification of the existence of a geographic feature.

<b>CLASS_SHORT_NAME</b>	VARCHAR2 (8)	Yes	CLASS_NAME
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System-generated column denoting the data class which this record is part of.

<b>JUSTIFICATION_DATE</b>	DATE	Yes	JUSTIF_DT
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Date that the geographic feature was justified.

<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

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### **CLASS\_OTHER\_INFORMATION**

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This table allows the NRVIS/LIO users to enter local-needs type of information, currently not captured in the NRVIS or LIO database. The table content will be analysed periodically to determine if the field(s) should be incorporated into the regular data class structure.

Column Name	Column Type	Mandatory	Short Name	Valid Values
<b>OGF_ID</b>	NUMBER (13,0)	Yes	OGF_ID	
A unique numeric provincial identifier assigned to each object.				
<b>FIELD_NAME</b>	VARCHAR2 (30)	Yes	FIELD_NAME	
The attribute name for the information.				
<b>CLASS_SHORT_NAME</b>	VARCHAR2 (8)	Yes	CLASS_NAME	
System-generated column denoting the concrete class which this record is part of.				
<b>FIELD_TYPE</b>	VARCHAR2 (8)	Yes	FIELD_TYPE	String, Integer, Double
The type of field.				
<b>FIELD_VALUE_STRING</b>	VARCHAR2 (50)	No	VALUE_S	
A field used to store character strings.				
<b>FIELD_VALUE_INTEGER</b>	NUMBER (5,0)	No	VALUE_I	
A field used to store integer values (small numbers).				
<b>FIELD_VALUE_DOUBLE</b>	NUMBER (10,3)	No	VALUE_D	
A field used to store decimal data with up to two decimals.				
<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				

### **CLASS\_PARTY\_ROLE**

A link to an external contact database.

Column Name	Column Type	Mandatory	Short Name	Valid Values
<b>OGF_ID</b>	NUMBER (13,0)	Yes	OGF_ID	
A unique numeric provincial identifier assigned to each object.				
<b>PARTY_IDENT</b>	VARCHAR2 (25)	Yes	PARTY_ID	
An identifier for a party (group or individual). It should reference an identifier in an external database which would contain further information. The identifier should not contain personal information (i.e. Social Insurance Number, Outdoors Card Number, phone number, name etc.).				
<b>PARTY_DATABASE</b>	VARCHAR2 (100)	Yes	PARTY_DB	
The database that contains the party information.				
<b>ROLE_TYPE</b>	VARCHAR2 (50)	Yes	ROLE_TYPE	Affiliated With, Approver, Authority Holder, Claim Holder, Contact, Contractor, ... (See ROLE_TYPE_LIST table)

The role that an organization or an individual plays.

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<b>CLASS_SHORT_NAME</b>	VARCHAR2 (8)	Yes	CLASS_NAME
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System-generated column denoting the concrete class which this record is part of.

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<b>ROLE_DETAIL</b>	VARCHAR2 (200)	No	DETAIL
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Additional details about the role.

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<b>START_DATE</b>	DATE	No	START_DATE
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The date when a Party starts to play a Role.

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<b>END_DATE</b>	DATE	No	END_DATE
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The date when a Party ceases to play a Role.

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<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

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## CLASS\_SOURCE

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Intersection table between the data class and Source List table.

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Column Name	Column Type	Mandatory	Short Name	Valid Values
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<b>OGF_ID</b>	NUMBER (13,0)	Yes	OGF_ID	
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A unique numeric provincial identifier assigned to each object.

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<b>SOURCE_NAME</b>	VARCHAR2 (100)	Yes	SOURCE_NAM	AFFM Provincial Administrative Maps, Aerial Photography, Aerial Survey, Book/Publication, CIR Photograpy, City of Ottawa Borehole Database, ... (See SOURCE_LIST table)
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The name of the source.

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<b>SOURCE_DETAIL</b>	VARCHAR2 (254)	Yes	SOURCE_DET	
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What part of the source pertains to the feature. Examples: Summary data from a data base, pages in a book or atlas, figure number and page from a publication, a section of a map, record in a database.

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<b>CLASS_SHORT_NAME</b>	VARCHAR2 (8)	Yes	CLASS_NAME	
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Unique abbreviation of the concrete class name (primary key)

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<b>SOURCE_DESCR</b>	VARCHAR2 (2000)	No	SOURCE_DES	
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Text providing details about the source.

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<b>METHOD_DESCR</b>	VARCHAR2 (2000)	No	METHOD	
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The type of method, tools, and techniques used in observing/collecting/recording the Source. It

may also include a URL where users could get further information on the method used.

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<b>SOURCE_APPLICABILITY</b>	VARCHAR2 (20)	No	APPLICABIL
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How the source contributes to the feature's definition.

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<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

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## CLASS\_SUPPORTING\_MATERIAL

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Material (document/file/picture) that provides more information on a geographic feature.

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Column Name	Column Type	Mandatory	Short Name	Valid Values
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<b>OGF_ID</b>	NUMBER (13,0)	Yes	OGF_ID
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A unique numeric provincial identifier assigned to each object.

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<b>MATERIAL_NAME</b>	VARCHAR2 (200)	Yes	NAME
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A name or brief description of the material.

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<b>MATERIAL_LOCATION</b>	VARCHAR2 (200)	Yes	LOCATION
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The location where the supporting material is stored. This may be a physical location or a link to a storage location.

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<b>CLASS_SHORT_NAME</b>	VARCHAR2 (8)	Yes	CLASS_NAME
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System-generated column denoting the concrete class which this record is part of.

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<b>URL_ENG</b>	VARCHAR2 (500)	No	URL_ENG
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The address of a computer or a document in English on the Internet that consists of a communications protocol followed by a colon and two slashes (as http://), the identifier of a computer (as www.m-w.com) and usually a path through a directory to a file -- called also universal resource locator.

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<b>URL_FRE</b>	VARCHAR2 (500)	No	URL_FRE
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The address of a computer or a document in French on the Internet that consists of a communications protocol followed by a colon and two slashes (as http://), the identifier of a computer (as www.m-w.com) and usually a path through a directory to a file -- called also universal resource locator.

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<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

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## EXTERNAL\_REF\_TYPE\_LIST

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List of valid EXTERNAL\_REFERENCE\_TYPE codes.

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Column Name	Column Type	Mandatory	Short Name	Valid Values
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<b>EXT_REF_TYPE_CODE</b>	VARCHAR2 (8)	Yes	EXT_REF_TY
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The type of external database that the identifier pertains to e.g. LUPS, LIS, Other.

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<b>EXT_REF_TYPE_DESCR</b>	VARCHAR2 (60)	Yes	EXT_REF_TY
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Description of the type of external reference.

<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

<b>EXPIRY_DATETIME</b>	DATE	No	EXP_DATE
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Date/time that the record was expired from use.

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## LOCATION\_ACCURACY\_LIST

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List of valid LOCATION\_ACCURACYs.

Column Name	Column Type	Mandatory	Short Name	Valid Values
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<b>LOCATION_ACCURACY</b>	VARCHAR2 (25)	Yes	ACCURACY
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The accuracy of the location of the feature at an OBM scale. The degree of conformity or closeness of a measurement to the true value.

<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

<b>EXPIRY_DATETIME</b>	DATE	No	EXP_DATE
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Date/time that the record was expired from use.

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## ROLE\_TYPE\_LIST

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List of valid party role types.

Column Name	Column Type	Mandatory	Short Name	Valid Values
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<b>ROLE_TYPE</b>	VARCHAR2 (50)	Yes	ROLE_TYPE
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The role that an organization or an individual plays.

<b>ROLE_TYPE_DESCR</b>	VARCHAR2 (2000)	Yes	DESCR
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Description of Role Type.

<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

<b>EXPIRY_DATETIME</b>	DATE	No	EXP_DATE
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Date/time that the record was expired from use.

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## SOURCE\_LIST

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A description of the source information that is the basis for creating or changing information about a geographic feature. It may be an observation, possibly resulting from a field survey or an adhoc report or a reference to a published or unpublished document.

Column Name	Column Type	Mandatory	Short Name	Valid Values
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<b>SOURCE_NAME</b>	VARCHAR2 (100)	Yes	NAME
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The name of the source.

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<b>SOURCE_DATE</b>	VARCHAR2 (50)	No	SRC_DATE
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The date of the source.

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<b>SOURCE_ORIGINATOR</b>	VARCHAR2 (75)	No	ORIGINATOR
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The originator or author of the source. Includes the author(s) of a book; the originator(s) of a survey or project, etc. Examples: Smith, J. Smith, J. and Jones, K. Smith, J., Jones, K. and White, T. Anon. (where no author identified) OMNR (where authorship is corporate) Northwest District (lead and delivered the data collection project)

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<b>SOURCE_SCALE</b>	VARCHAR2 (15)	No	SCALE
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The scale of the vector base or aerial photography, the cell resolution of a grid, or the pixel resolution of an image used to record the location of the feature. Examples: For a vector source or aerial photography: 1:10,000 1:20,000 1:250,000. For a grid or imagery source: 1 km, 10 m, 15 seconds.

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<b>HORIZONTAL_DATUM</b>	VARCHAR2 (10)	No	H_DATUM
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Identifies the reference system used for defining the coordinates of points. There are three common horizontal datum systems used in Ontario: NAD83, NAD27, NAD27 with 1974 adjustment. The datum models the shape of the earth.

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<b>VERTICAL_DATUM</b>	VARCHAR2 (30)	No	V_DATUM
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The zero surface to which elevations or heights are referred is called a vertical datum. Traditionally, surveyors and mapmakers have tried to simplify the task by using the average (or mean) sea level as the definition of zero elevation, because the sea surface is available worldwide. MSL is a close approximation to another surface, defined by gravity, called the geoid, which is the true zero surface for measuring elevations. Example: WGS-84 EGM96 Geoid.

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<b>SOURCE_PROJECTION</b>	VARCHAR2 (40)	No	PROJECTION
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The name of a systematic representation of all or part of the surface of the Earth on a plane or developable surface.

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<b>EFFECTIVE_DATETIME</b>	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

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<b>EXPIRY_DATETIME</b>	DATE	No	EXP_DATE
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Date/time that the record was expired from use.

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**LIO Lookup Table Values:**  
**EXTERNAL\_REF\_TYPE\_LIST**

<b>EXT REF TYPE CODE</b>	<b>EXT REF TYPE DESCR</b>	<b>EXPIRY DATETIME</b>
ALPS	Aggregate Licence Permit Database	
AMIS	Abandoned Mines Database	
ARFIS	Algonquin Region Forest Database	
BCD	Biological and Conservation Database	
DTDB	Digital Topographic Database	
FISHARC	Fisheries Data Archive	
FISHLIB	Fisheries Information Library	
FRI	Forest Resources Inventory Database	
IF	Internal Filing	
LIS	Land Index System	
LUP	Land Use Permit	
NADB	Natural Areas Database	
NTDB	National Topographic Database	
NWEIMS	Wetland Evaluation Information Management Database (North)	
OBM	Ontario Base Map Database	
OFIS	Ontario Fisheries Information Database	
OLI	Ontario Land Inventory	
OPDS	Ontario Petroleum Database	
OTHER	Other External Reference	
PER	Permit	
RBT	Resource Based Tourism Licence	
SFMM	Sustainable Forest Management Model	
WEIMS	Wetland Evaluation Information Management Database (South)	
^	NRVIS 2.0 Data Conversion	1999-11-05

**LIO Lookup Table Values:**  
**LOCATION\_ACCURACY\_LIST**

<b>LOCATION ACCURACY</b>	<b>EXPIRY DATETIME</b>
Not Applicable	
Over 10,000 metres	
Within 1 metre	
Within 10 metres	
Within 10,000 metres	
Within 100 metres	
Within 1000 metres	
Within 2 metres	
Within 20 metres	
Within 200 metres	
Within 2000 metres	
Within 5 metres	
Within 50 metres	
Within 500 metres	
Within 5000 metres	
AC Accurate (to 10m)	2007-01-12
AP Approximate (to 500m)	2007-01-12
GE General (to 10,000m)	2007-01-12
MO Moderate (to 1000m)	2007-01-12
RE Reliable (to 100m)	2007-01-12
VA Very Accurate (to 2m)	2007-01-12
VG Vague (to 100,000m)	2007-01-12
^ Data Load	2007-01-12

## LIO Lookup Table Values:

### ROLE\_TYPE\_LIST

ROLE TYPE	ROLE TYPE DESCR	EXPIRY DATETIME
Affiliated With	This role type indicates that the related "from" Party (Individual or Group) has a relationship with the related "to" Party that is not more explicitly covered by another role type.	
Approver	This role type indicates that the related Party (Individual or Group) is one that has approved action associated with the related item. For example, if the related item is an Authority (License, permit, etc.) this would indicate the Party that approved the issuance of the Authority; if the related item is a Recommended Action this would indicate the Party that approved the initiation of the action; etc.	
Authority Holder	This role type indicates that the related Party (Individual or Group) is the one to which the Ministry has issued the related Authority (license, permit, etc.).	
Claim Holder	This role type indicates that the related Party (Individual or Group) is the one that is the registered owner of the related Mining Claim (area).	
Contact	This role type indicates that the related "from" Party (Individual or Group) is the designated point of contact for communication with the related "to" Party.	
Contractor	N/A	
Custodian	This role type indicates that the related Party (Individual or Group) is responsible for the care of the related Geographic Unit.	
Data Provider	This role type indicates that the related Party (Individual or Group) is the provider of a data source about the related Geographic Unit.	
Employee	This role type indicates that the related "from" Party (an Individual) is employed by the related "to" Party (a Group).	
Evaluator	This role type indicates that the related Party (Individual or Group) is the one who has evaluated the related Geographic Unit.	
Group Member	This role type indicates that the related "from" Party (Individual or Group) is a member of the related "to" Party (a Group). This could include membership in a Local Citizens Committee or a designated interest group.	
Information Holding Custodian	This role type indicates that the related Party (Individual or Group) is responsible for the storage and protection of the related Information Holding.	
Interested Party	This role type indicates that the related Party (Individual or Group) has a stated interest in a related Issue; or has a stated interest in plans and activities involving the related Geographic Unit.	
Issuer	This role type indicates that the related Party (Individual or Group)	

	is one that has issued the related Authority (license, permit, etc.).	
Lease Holder	This role type indicates that the related Party (Individual or Group) has occupancy rights to the related Geographic Unit for the period and according to the terms of a lease agreement.	
Manager	This role type indicates that the related "from" Party (Individual or Group) manages or directs the activities of the related "to" Party (the "to" Party reports to or is accountable to the "from" Party); or manages the operation of the related Geographic Unit (e.g., a Tourism Establishment).	
Metadata Custodian	This role type indicates that the related Party (Individual or Group) is responsible for the storage and protection of the information ABOUT the related Information Holding. Note: There is a separate role type for the custodian of the information holding itself.	
Observer	This role type indicates that the related Party (Individual or Group) is the one who made the observations in the related Information Source.	
Operator	This role type indicates that the related Party (Individual or Group) operates the related Geographic Unit facility (e.g., Tourism Establishment, Mill).	
Owner	This role type indicates that the related Party (Individual or Group) owns the related Geographic Unit (e.g., Tourism Establishment).	
Partner	This role type indicates that the related "from" Party (Individual or Group) has a partnership arrangement with the related "to" Party.	
Steward	This role type indicates that the related "from" Party (Individual or Group) is responsible for assisting the Ministry with respect to the management of resources within the related Geographic Unit.	
Supervisor	This role type indicates that the related "from Party (Individual or Group) supervises the activities of the related "to" Party.	
Verifier	N/A	

LIO Lookup Table Values:

**SOURCE\_LIST**

SOURCE NAME	SOURCE DATE	SOURCE ORIGINATOR	SOURCE SCALE	HORIZONTAL DATUM	VERTICAL DATUM	SOURCE PROJECTION	EXPIRY DATETIME
AFFM Provincial Administrative Maps		Ministry of Natural Resources	600000				
Aerial Photography		Ministry of Natural Resources	15840				
Aerial Survey							
Book/Publication							
CIR Photograpy		Ministry of Natural Resources					
City of Ottawa Borehole Database	1883 - 2006	City of Ottawa	Varies		Mean Average Sea Level	Geodetic and UTM	
Digital File							
Digital Map							
Field Survey\Site Visit							
File System/Filing Cabinet Information							
Forest Resources Inventory		Ministry of Natural Resources		NAD27		UTM	
GPS Data Collection							
Hard Copy/Paper Map							
IKONOS Multispectral		Ministry of Natural Resources					
IKONOS Panchromatic		Ministry of Natural Resources					
IRS Multispectral		Ministry of Natural Resources					
IRS Panchromatic		Ministry of Natural Resources					
IRS Pansharpened		Ministry of Natural Resources					

Landsat-1,2,3 MSS		Ministry of Natural Resources					
Landsat-4,5 MSS		Ministry of Natural Resources					
Landsat-7 ETM		Ministry of Natural Resources					
Local Borehole Drilling Program Results	2006	Ministry of Northern Development and Mines			Mean Average Sea Level		
Local Knowledge							
MNDM Assesment File							
MNDM Client/Company Information							
MNR Based Observation							
MTO Engineering Reports	Varies	Ministry of Transportation	Varies		Mean Average Sea Level		
NRCan - CanVec	2008	Natural Resources Canada	50000	NAD83			
NRCan - National Hydro Network	2008	Natural Resources Canada	50000	NAD83			
NTS Map 1:250000	1970 to 2003	Department of Natural Reosurces	250000	NAD27			
NTS Map 1:50000	1970 to 2003	Department of Natural Resources	50000	NAD27			
Ontario Base Map 1:10000	1978 to 1995	Ministry of Natural Resources	10000	NAD27		UTM	
Ontario Base Map 1:20000	1978 to 1995	Ministry of Natural Resources	20000	NAD27		UTM	
Ontario Geological Survey Fieldwork Mapping	Varies to 2004	Ontario Geological Survey	1:50,000	NAD83	Mean Average Sea Level	Universal Transvers Mercator	
Ontario Parcel				NAD83			
OrthoImagery		Ministry of Natural Resources					
Public Observation							



Quaternary Geology Study	Varies	Ministry of Northern Development and Mines			Mean Average Sea Level		
Unknown	11-12-02						
Urban Geology Automated Information System (UGAIS)	1956-1972	Geological Survey of Canada	Varies	NAD27	Mean Average Sea Level	Universal Transverse Mercator	
Water Well Data Improvement Project	2006	Ministry of Natural Resources, Water Resources Information Program	Varies	NAD83	Mean Average Sea Level	Geodetic	
Water Well Information System (WWIS)	1899 - 2003	Ministry of the Environment, Environmental Monitoring and Reporting Branch	Varies	NAD27	Mean Average Sea Level	Universal Transverse Mercator	
Waterloo Area Geology Automated Information System (WAGAIS)	1900 - 1977	Geological Survey of Canada	Varies	NAD27	Mean Average Sea Level	Universal Transverse Mercator	
External Source from NRVIS 2							2007-01-12
Internal Source from NRVIS 2							2007-01-12
Material Source from NRVIS 2							2007-01-12
Ontario Base Map	1978 to 1995	Ministry of Natural Resources		NAD27		UTM	2007-01-12
Source Observation from NRVIS 2							2007-01-12
Unknown Imagery							2007-01-12