

# Land Information Ontario Data Description

## Cottage Residential Site

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## LIO Class Description

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### Cottage Residential Site

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**Class Short Name:** COTRESSI

**Version Number:** 3

**Class Description:**

A Cottage Residential Site is a polygon feature that identifies a site of human occupancy and whether that occupancy is seasonal or year-round.

**Abstract Class Name:** SPSNTPOLY

**Abstract Class**

**Description:**

Abstract Spatial Single-Non-Tessellating-Polygon User Object. One and only one polygon forms a single object. Polygons may NOT overlap. However, holes, gaps and islands are allowed.

Examples of this are sub classes that may fall under this class are lakes wetlands, ANSIs, etc.

**Metadata URL:**

**Tables in LIO Class:**

**Cottage Residential Site**

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**COTTAGE\_RESIDENTIAL\_SITE\_FT**

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A property containing one or more cottage or residential structures.

| Column Name                                                                                                | Column Type        | Mandatory | Short Name | Valid Values                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------|--------------------|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OGF_ID</b>                                                                                              | NUMBER<br>(13,0)   | Yes       | OGF_ID     |                                                                                                                                                          |
| A unique numeric provincial identifier assigned to each object.                                            |                    |           |            |                                                                                                                                                          |
| <b>CLASS_SUBTYPE</b>                                                                                       | VARCHAR2<br>(75)   | Yes       | SUBTYPE    |                                                                                                                                                          |
| The data class subtype - Original GEOG_UNIT_TYPE_NAME.                                                     |                    |           |            |                                                                                                                                                          |
| <b>CLASS_SUBTYPE_NUM</b>                                                                                   | NUMBER<br>(7,0)    | Yes       | STYPE_NUM  |                                                                                                                                                          |
| The data class subtype number - Original GEOG_UNIT_TYPE_NUM.                                               |                    |           |            |                                                                                                                                                          |
| <b>COTTAGE_SITE_DESCR</b>                                                                                  | VARCHAR2<br>(2000) | No        | SITE_DESCR |                                                                                                                                                          |
| Description of Cottage Site.                                                                               |                    |           |            |                                                                                                                                                          |
| <b>STRUCTURES_NUM</b>                                                                                      | NUMBER<br>(4,0)    | No        | STRUCTURES |                                                                                                                                                          |
| Number of structures on the site.                                                                          |                    |           |            |                                                                                                                                                          |
| <b>LEASE_IND</b>                                                                                           | VARCHAR2<br>(3)    | No        | LEASE_IND  | Yes,No                                                                                                                                                   |
| Indication of whether a lease exists on the site.                                                          |                    |           |            |                                                                                                                                                          |
| <b>LOCATION_ACCURACY</b>                                                                                   | VARCHAR2<br>(25)   | Yes       | ACCURACY   | Not Applicable, Over 10,000 metres, Within 1 metre, Within 10 metres, Within 10,000 metres, Within 100 metres, ...<br>(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<br>(2000) | No        | LOC_DES    |                                                                                                                                                          |
| Description of the area or directions on how to get to the site.                                           |                    |           |            |                                                                                                                                                          |
| <b>GEOG_UNIT_DESCR</b>                                                                                     | VARCHAR2<br>(2000) | No        | GUNT_DES   |                                                                                                                                                          |
| Detailed description of the Geographic Unit.                                                               |                    |           |            |                                                                                                                                                          |
| <b>SENSITIVITY_CLASS</b>                                                                                   | VARCHAR2<br>(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<br>(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 Reqt", "Cultural Heritage Site", "Other". Note: For Species at Risk (SAR) features, please use "Legislative or Legal Reqt" as a rationale. |                   |     |            |
| <b>SENS_RATIONALE_OTHER_DESCR</b>                                                                                                                                                                                                                                                                                                                                                           | VARCHAR2<br>(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<br>(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<br>(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<br>(16,3)  | No  | SYS_AREA   |
| The area of a polygon measured in square metres by the system.                                                                                                                                                                                                                                                                                                                              |                   |     |            |
| <b>SYSTEM_CALCULATED_LENGTH</b>                                                                                                                                                                                                                                                                                                                                                             | NUMBER<br>(16,3)  | No  | SYS_LENGTH |
| The perimeter of a polygon or length of a line measured in metres.                                                                                                                                                                                                                                                                                                                          |                   |     |            |
| <b>USER_CALCULATED_METRIC</b>                                                                                                                                                                                                                                                                                                                                                               | NUMBER<br>(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<br>(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.

## **CLASS\_ALIAS\_NAME**

Location name for the geographic feature. Only one primary local name is allowed per area. Other local names are alias names.

| Column Name | Column Type | Mandatory | Short Name | Valid Values |
|-------------|-------------|-----------|------------|--------------|
|-------------|-------------|-----------|------------|--------------|

|               |                  |     |        |  |
|---------------|------------------|-----|--------|--|
| <b>OGF_ID</b> | NUMBER<br>(13,0) | Yes | OGF_ID |  |
|---------------|------------------|-----|--------|--|

A unique numeric provincial identifier assigned to each object.

|                   |                  |     |            |  |
|-------------------|------------------|-----|------------|--|
| <b>LOCAL_NAME</b> | VARCHAR2<br>(75) | Yes | LOCAL_NAME |  |
|-------------------|------------------|-----|------------|--|

Local name of geographic unit.

|                         |                 |     |            |  |
|-------------------------|-----------------|-----|------------|--|
| <b>CLASS_SHORT_NAME</b> | VARCHAR2<br>(8) | Yes | CLASS_NAME |  |
|-------------------------|-----------------|-----|------------|--|

System-generated column denoting the concrete class which this record is part of.

|                         |                 |     |          |         |
|-------------------------|-----------------|-----|----------|---------|
| <b>PRIMARY_NAME_IND</b> | VARCHAR2<br>(3) | Yes | PRIM_IND | Yes, No |
|-------------------------|-----------------|-----|----------|---------|

Indication of whether this is the primary local or common name.

|                           |      |     |          |
|---------------------------|------|-----|----------|
| <b>EFFECTIVE_DATETIME</b> | DATE | Yes | EFF_DATE |
|---------------------------|------|-----|----------|

Date/time the record was created or last modified in the source database.

## **CLASS\_DATABASE\_REFERENCE**

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

| Column Name | Column Type | Mandatory | Short Name | Valid Values |
|-------------|-------------|-----------|------------|--------------|
|-------------|-------------|-----------|------------|--------------|

|               |                  |     |        |  |
|---------------|------------------|-----|--------|--|
| <b>OGF_ID</b> | NUMBER<br>(13,0) | Yes | OGF_ID |  |
|---------------|------------------|-----|--------|--|

A unique numeric provincial identifier assigned to each object.

|                              |                  |     |         |                    |
|------------------------------|------------------|-----|---------|--------------------|
| <b>INTERNAL_EXTERNAL_FLG</b> | VARCHAR2<br>(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<br>(50) | Yes | IDENT |  |
|---------------------------------|------------------|-----|-------|--|

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<br>(8)    | Yes | CLASS_NAME |
| Static short name that will be used by for the concrete class.                                                                                                               |                    |     |            |
| <b>DATABASE_REFERENCE_DETAIL</b>                                                                                                                                             | VARCHAR2<br>(2000) | No  | DETAIL     |
| 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<br>(8)    | No  | CLASS_NAME |
| The static short name that is used by the related concrete class.                                                                                                            |                    |     |            |
| <b>EXT_REF_TYPE_CODE</b>                                                                                                                                                     | VARCHAR2<br>(8)    | No  | EXT_TYPE   |
| The type of external database that the identifier pertains to e.g. LUPS, LIS, etc.                                                                                           |                    |     |            |
| <b>TYPE_OTHER_DESCR</b>                                                                                                                                                      | VARCHAR2<br>(60)   | No  | OTH_DESCR  |
| A full description of the type when set to "other".                                                                                                                          |                    |     |            |
| <b>EFFECTIVE_DATETIME</b>                                                                                                                                                    | DATE               | Yes | EFF_DATE   |
| Date/time the record was created or last modified in the source database.                                                                                                    |                    |     |            |

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## CLASS\_JUSTIFICATION

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<br>(13,0)   | Yes       | OGF_ID     |              |
| A unique numeric provincial identifier assigned to each object.               |                    |           |            |              |
| <b>JUSTIFICATION_REASON</b>                                                   | VARCHAR2<br>(2000) | Yes       | REASON     |              |
| Reason for justification of the existence of a geographic feature.            |                    |           |            |              |
| <b>CLASS_SHORT_NAME</b>                                                       | VARCHAR2<br>(8)    | Yes       | CLASS_NAME |              |
| System-generated column denoting the data class which this record is part of. |                    |           |            |              |
| <b>JUSTIFICATION_DATE</b>                                                     | DATE               | Yes       | JUSTIF_DT  |              |
| Date that the geographic feature was justified.                               |                    |           |            |              |
| <b>EFFECTIVE_DATETIME</b>                                                     | DATE               | Yes       | EFF_DATE   |              |
| Date/time the record was created or last modified in the source database.     |                    |           |            |              |

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## CLASS\_OTHER\_INFORMATION

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<br>(13,0) | Yes       | OGF_ID     |                         |
| A unique numeric provincial identifier assigned to each object.                   |                  |           |            |                         |
| <b>FIELD_NAME</b>                                                                 | VARCHAR2<br>(30) | Yes       | FIELD_NAME |                         |
| The attribute name for the information.                                           |                  |           |            |                         |
| <b>CLASS_SHORT_NAME</b>                                                           | VARCHAR2<br>(8)  | Yes       | CLASS_NAME |                         |
| System-generated column denoting the concrete class which this record is part of. |                  |           |            |                         |
| <b>FIELD_TYPE</b>                                                                 | VARCHAR2<br>(8)  | Yes       | FIELD_TYPE | String, Integer, Double |
| The type of field.                                                                |                  |           |            |                         |
| <b>FIELD_VALUE_STRING</b>                                                         | VARCHAR2<br>(50) | No        | VALUE_S    |                         |
| A field used to store character strings.                                          |                  |           |            |                         |
| <b>FIELD_VALUE_INTEGER</b>                                                        | NUMBER<br>(5,0)  | No        | VALUE_I    |                         |
| A field used to store integer values (small numbers).                             |                  |           |            |                         |
| <b>FIELD_VALUE_DOUBLE</b>                                                         | NUMBER<br>(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<br>(13,0)  | Yes       | OGF_ID     |                            |
| A unique numeric provincial identifier assigned to each object.                                                                                                                                                                                                                           |                   |           |            |                            |
| <b>PARTY_IDENT</b>                                                                                                                                                                                                                                                                        | VARCHAR2<br>(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<br>(100) | Yes       | PARTY_DB   |                            |
| The database that contains the party information.                                                                                                                                                                                                                                         |                   |           |            |                            |
| <b>ROLE_TYPE</b>                                                                                                                                                                                                                                                                          | VARCHAR2          | Yes       | ROLE_TYPE  | Affiliated With, Approver, |

(50)

Authority Holder, Claim  
Holder, Contact, Contractor,  
...  
(See ROLE\_TYPE\_LIST table)

The role that an organization or an individual plays.

|                         |                 |     |            |
|-------------------------|-----------------|-----|------------|
| <b>CLASS_SHORT_NAME</b> | VARCHAR2<br>(8) | Yes | CLASS_NAME |
|-------------------------|-----------------|-----|------------|

System-generated column denoting the concrete class which this record is part of.

|                    |                   |    |        |
|--------------------|-------------------|----|--------|
| <b>ROLE_DETAIL</b> | VARCHAR2<br>(200) | No | DETAIL |
|--------------------|-------------------|----|--------|

Additional details about the role.

|                   |      |    |            |
|-------------------|------|----|------------|
| <b>START_DATE</b> | DATE | No | START_DATE |
|-------------------|------|----|------------|

The date when a Party starts to play a Role.

|                 |      |    |          |
|-----------------|------|----|----------|
| <b>END_DATE</b> | DATE | No | END_DATE |
|-----------------|------|----|----------|

The date when a Party ceases to play a Role.

|                           |      |     |          |
|---------------------------|------|-----|----------|
| <b>EFFECTIVE_DATETIME</b> | DATE | Yes | EFF_DATE |
|---------------------------|------|-----|----------|

Date/time the record was created or last modified in the source database.

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## **CLASS\_SITE\_ACCESS**

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Intersection table between Data Class table and Site Access Method List.

| Column Name | Column Type | Mandatory | Short Name | Valid Values |
|-------------|-------------|-----------|------------|--------------|
|-------------|-------------|-----------|------------|--------------|

|               |                  |     |        |  |
|---------------|------------------|-----|--------|--|
| <b>OGF_ID</b> | NUMBER<br>(13,0) | Yes | OGF_ID |  |
|---------------|------------------|-----|--------|--|

A unique numeric provincial identifier assigned to each object.

|                           |                  |     |        |                                                                                                                                |
|---------------------------|------------------|-----|--------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>SITE_ACCESS_METHOD</b> | VARCHAR2<br>(20) | Yes | METHOD | 4x4 Vehicle, ATV Vehicle,<br>Boat, Motorized, Canoe, Float<br>Aircraft, Foot, ...<br>(See<br>SITE_ACCESS_METHOD_LIST<br>table) |
|---------------------------|------------------|-----|--------|--------------------------------------------------------------------------------------------------------------------------------|

The method of accessing the geographic feature.

|                         |                 |     |            |
|-------------------------|-----------------|-----|------------|
| <b>CLASS_SHORT_NAME</b> | VARCHAR2<br>(8) | Yes | CLASS_NAME |
|-------------------------|-----------------|-----|------------|

System-generated column denoting the data class which this record is part of.

|                           |      |     |          |
|---------------------------|------|-----|----------|
| <b>EFFECTIVE_DATETIME</b> | DATE | Yes | EFF_DATE |
|---------------------------|------|-----|----------|

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.

| Column Name | Column Type | Mandatory | Short Name | Valid Values |
|-------------|-------------|-----------|------------|--------------|
|-------------|-------------|-----------|------------|--------------|

|                                                                                                                                                                                                          |                    |     |            |                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OGF_ID</b>                                                                                                                                                                                            | NUMBER<br>(13,0)   | Yes | OGF_ID     |                                                                                                                                                                                              |
| A unique numeric provincial identifier assigned to each object.                                                                                                                                          |                    |     |            |                                                                                                                                                                                              |
| <b>SOURCE_NAME</b>                                                                                                                                                                                       | VARCHAR2<br>(100)  | Yes | SOURCE_NAM | AFFM Provincial<br>Administrative Maps,<br>Aerial Photography, Aerial<br>Survey, Book/Publication,<br>CIR Photograpy, City of<br>Ottawa Borehole<br>Database, ...<br>(See SOURCE_LIST table) |
| The name of the source.                                                                                                                                                                                  |                    |     |            |                                                                                                                                                                                              |
| <b>SOURCE_DETAIL</b>                                                                                                                                                                                     | VARCHAR2<br>(254)  | Yes | SOURCE_DET |                                                                                                                                                                                              |
| 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. |                    |     |            |                                                                                                                                                                                              |
| <b>CLASS_SHORT_NAME</b>                                                                                                                                                                                  | VARCHAR2<br>(8)    | Yes | CLASS_NAME |                                                                                                                                                                                              |
| Unique abbreviation of the concrete class name (primary key)                                                                                                                                             |                    |     |            |                                                                                                                                                                                              |
| <b>SOURCE_DESCR</b>                                                                                                                                                                                      | VARCHAR2<br>(2000) | No  | SOURCE_DES |                                                                                                                                                                                              |
| Text providing details about the source.                                                                                                                                                                 |                    |     |            |                                                                                                                                                                                              |
| <b>METHOD_DESCR</b>                                                                                                                                                                                      | VARCHAR2<br>(2000) | No  | METHOD     |                                                                                                                                                                                              |
| 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.                     |                    |     |            |                                                                                                                                                                                              |
| <b>SOURCE_APPLICABILITY</b>                                                                                                                                                                              | VARCHAR2<br>(20)   | No  | APPLICABIL |                                                                                                                                                                                              |
| How the source contributes to the feature's definition.                                                                                                                                                  |                    |     |            |                                                                                                                                                                                              |
| <b>EFFECTIVE_DATETIME</b>                                                                                                                                                                                | DATE               | Yes | EFF_DATE   |                                                                                                                                                                                              |
| Date/time the record was created or last modified in the source database.                                                                                                                                |                    |     |            |                                                                                                                                                                                              |

## CLASS\_SUPPORTING\_MATERIAL

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

| Column Name                                                     | Column Type       | Mandatory | Short Name | Valid Values |
|-----------------------------------------------------------------|-------------------|-----------|------------|--------------|
| <b>OGF_ID</b>                                                   | NUMBER<br>(13,0)  | Yes       | OGF_ID     |              |
| A unique numeric provincial identifier assigned to each object. |                   |           |            |              |
| <b>MATERIAL_NAME</b>                                            | VARCHAR2<br>(200) | Yes       | NAME       |              |
| A name or brief description of the material.                    |                   |           |            |              |
| <b>MATERIAL_LOCATION</b>                                        | VARCHAR2          | Yes       | LOCATION   |              |

(200)

The location where the supporting material is stored. This may be a physical location or a link to a storage location.

|                         |                 |     |            |
|-------------------------|-----------------|-----|------------|
| <b>CLASS_SHORT_NAME</b> | VARCHAR2<br>(8) | Yes | CLASS_NAME |
|-------------------------|-----------------|-----|------------|

System-generated column denoting the concrete class which this record is part of.

|                |                   |    |         |
|----------------|-------------------|----|---------|
| <b>URL_ENG</b> | VARCHAR2<br>(500) | No | URL_ENG |
|----------------|-------------------|----|---------|

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.

|                |                   |    |         |
|----------------|-------------------|----|---------|
| <b>URL_FRE</b> | VARCHAR2<br>(500) | No | URL_FRE |
|----------------|-------------------|----|---------|

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.

|                           |      |     |          |
|---------------------------|------|-----|----------|
| <b>EFFECTIVE_DATETIME</b> | DATE | Yes | EFF_DATE |
|---------------------------|------|-----|----------|

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.

| Column Name              | Column Type     | Mandatory | Short Name | Valid Values |
|--------------------------|-----------------|-----------|------------|--------------|
| <b>EXT_REF_TYPE_CODE</b> | VARCHAR2<br>(8) | Yes       | EXT_REF_TY |              |

The type of external database that the identifier pertains to e.g. LUPS, LIS, Other.

|                           |                  |     |            |  |
|---------------------------|------------------|-----|------------|--|
| <b>EXT_REF_TYPE_DESCR</b> | VARCHAR2<br>(60) | Yes | EXT_REF_TY |  |
|---------------------------|------------------|-----|------------|--|

Description of the type of external reference.

|                           |      |     |          |
|---------------------------|------|-----|----------|
| <b>EFFECTIVE_DATETIME</b> | DATE | Yes | EFF_DATE |
|---------------------------|------|-----|----------|

Date/time the record was created or last modified in the source database.

|                        |      |    |          |
|------------------------|------|----|----------|
| <b>EXPIRY_DATETIME</b> | DATE | No | EXP_DATE |
|------------------------|------|----|----------|

Date/time that the record was expired from use.

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## FIRE\_FUEL\_CLASS\_LIST

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List of valid Fuel Class codes.

| Column Name       | Column Type      | Mandatory | Short Name | Valid Values |
|-------------------|------------------|-----------|------------|--------------|
| <b>FUEL_CLASS</b> | VARCHAR2<br>(40) | Yes       | FUEL_CLASS |              |

The forest fire danger rating fuel class, as defined by the Canadian Forest Fire Behavior Prediction

System, for the area in and around the feature i.e. immature jack pine, leafless aspen, grass

|                           |      |     |          |
|---------------------------|------|-----|----------|
| <b>EFFECTIVE_DATETIME</b> | DATE | Yes | EFF_DATE |
|---------------------------|------|-----|----------|

Date/time the record was created or last modified in the source database.

|                        |      |    |          |
|------------------------|------|----|----------|
| <b>EXPIRY_DATETIME</b> | DATE | No | EXP_DATE |
|------------------------|------|----|----------|

Date/time that the record was expired from use.

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## LOCATION\_ACCURACY\_LIST

---

List of valid LOCATION\_ACCURACYs.

| Column Name | Column Type | Mandatory | Short Name | Valid Values |
|-------------|-------------|-----------|------------|--------------|
|-------------|-------------|-----------|------------|--------------|

|                          |                  |     |          |
|--------------------------|------------------|-----|----------|
| <b>LOCATION_ACCURACY</b> | VARCHAR2<br>(25) | Yes | ACCURACY |
|--------------------------|------------------|-----|----------|

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 |
|---------------------------|------|-----|----------|

Date/time the record was created or last modified in the source database.

|                        |      |    |          |
|------------------------|------|----|----------|
| <b>EXPIRY_DATETIME</b> | DATE | No | EXP_DATE |
|------------------------|------|----|----------|

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 |
|-------------|-------------|-----------|------------|--------------|
|-------------|-------------|-----------|------------|--------------|

|                  |                  |     |           |
|------------------|------------------|-----|-----------|
| <b>ROLE_TYPE</b> | VARCHAR2<br>(50) | Yes | ROLE_TYPE |
|------------------|------------------|-----|-----------|

The role that an organization or an individual plays.

|                        |                    |     |       |
|------------------------|--------------------|-----|-------|
| <b>ROLE_TYPE_DESCR</b> | VARCHAR2<br>(2000) | Yes | DESCR |
|------------------------|--------------------|-----|-------|

Description of Role Type.

|                           |      |     |          |
|---------------------------|------|-----|----------|
| <b>EFFECTIVE_DATETIME</b> | DATE | Yes | EFF_DATE |
|---------------------------|------|-----|----------|

Date/time the record was created or last modified in the source database.

|                        |      |    |          |
|------------------------|------|----|----------|
| <b>EXPIRY_DATETIME</b> | DATE | No | EXP_DATE |
|------------------------|------|----|----------|

Date/time that the record was expired from use.

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## SITE\_ACCESS\_METHOD\_LIST

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A list of valid SITE\_ACCESS\_METHODs (e.g. Road, Helicopter, Boat, etc.)

| Column Name | Column Type | Mandatory | Short Name | Valid Values |
|-------------|-------------|-----------|------------|--------------|
|-------------|-------------|-----------|------------|--------------|

|                           |                  |     |        |
|---------------------------|------------------|-----|--------|
| <b>SITE_ACCESS_METHOD</b> | VARCHAR2<br>(20) | Yes | METHOD |
|---------------------------|------------------|-----|--------|

The method of accessing the geographic unit.

|                           |      |     |          |
|---------------------------|------|-----|----------|
| <b>EFFECTIVE_DATETIME</b> | DATE | Yes | EFF_DATE |
|---------------------------|------|-----|----------|

Date/time the record was created or last modified in the source database.

|                        |      |    |          |
|------------------------|------|----|----------|
| <b>EXPIRY_DATETIME</b> | DATE | No | EXP_DATE |
|------------------------|------|----|----------|

Date/time that the record was expired from use.

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## **SITE\_STATUS**

---

null

| <b>Column Name</b> | <b>Column Type</b> | <b>Mandatory</b> | <b>Short Name</b> | <b>Valid Values</b> |
|--------------------|--------------------|------------------|-------------------|---------------------|
|--------------------|--------------------|------------------|-------------------|---------------------|

|                         |                 |     |            |
|-------------------------|-----------------|-----|------------|
| <b>SITE_STATUS_CODE</b> | VARCHAR2<br>(1) | Yes | SITE_STATU |
|-------------------------|-----------------|-----|------------|

Indicates whether the site is developed or proposed.

|                          |                  |     |            |
|--------------------------|------------------|-----|------------|
| <b>SITE_STATUS_DESCR</b> | VARCHAR2<br>(10) | Yes | SITE_STATU |
|--------------------------|------------------|-----|------------|

Indicates whether the site is developed or proposed.

|                           |      |     |          |
|---------------------------|------|-----|----------|
| <b>EFFECTIVE_DATETIME</b> | DATE | Yes | EFF_DATE |
|---------------------------|------|-----|----------|

Date/time the record was created or last modified in the source database.

|                        |      |    |          |
|------------------------|------|----|----------|
| <b>EXPIRY_DATETIME</b> | DATE | No | EXP_DATE |
|------------------------|------|----|----------|

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 ad hoc report or a reference to a published or unpublished document.

| <b>Column Name</b> | <b>Column Type</b> | <b>Mandatory</b> | <b>Short Name</b> | <b>Valid Values</b> |
|--------------------|--------------------|------------------|-------------------|---------------------|
|--------------------|--------------------|------------------|-------------------|---------------------|

|                    |                   |     |      |
|--------------------|-------------------|-----|------|
| <b>SOURCE_NAME</b> | VARCHAR2<br>(100) | Yes | NAME |
|--------------------|-------------------|-----|------|

The name of the source.

|                    |                  |    |          |
|--------------------|------------------|----|----------|
| <b>SOURCE_DATE</b> | VARCHAR2<br>(50) | No | SRC_DATE |
|--------------------|------------------|----|----------|

The date of the source.

|                          |                  |    |            |
|--------------------------|------------------|----|------------|
| <b>SOURCE_ORIGINATOR</b> | VARCHAR2<br>(75) | No | ORIGINATOR |
|--------------------------|------------------|----|------------|

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)

|                     |                  |    |       |
|---------------------|------------------|----|-------|
| <b>SOURCE_SCALE</b> | VARCHAR2<br>(15) | No | SCALE |
|---------------------|------------------|----|-------|

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<br>(10) | No | H_DATUM |
|-------------------------|------------------|----|---------|

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.

---

|                       |                  |    |         |
|-----------------------|------------------|----|---------|
| <b>VERTICAL_DATUM</b> | VARCHAR2<br>(30) | No | V_DATUM |
|-----------------------|------------------|----|---------|

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<br>(40) | No | PROJECTION |
|--------------------------|------------------|----|------------|

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 |
|---------------------------|------|-----|----------|

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 |
|------------------------|------|----|----------|

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<br/>CODE</b> | <b>EXT REF TYPE DESCR</b>                                     | <b>EXPIRY<br/>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<br>(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<br>(South) |                            |
| ^                            | NRVIS 2.0 Data Conversion                                     | 1999-11-05                 |

**LIO Lookup Table Values:**  
**FIRE\_FUEL\_CLASS\_LIST**

| <b>FUEL CLASS</b>                   | <b>EXPIRY DATETIME</b> |
|-------------------------------------|------------------------|
| Boreal Mixedwood - Green            |                        |
| Boreal Mixedwood - Leafless         |                        |
| Boreal Spruce                       |                        |
| Coastal Cedar-Hemlock-Douglas-fir S |                        |
| Conifer Plantation                  |                        |
| Dead Balsam Fir Mixedwood - Green   |                        |
| Dead Balsam Fir Mixedwood - Leafles |                        |
| Grass                               |                        |
| Immature Jack or Lodgepole Pine     |                        |
| Jack or Lodgepole Pine Slash        |                        |
| Leafless Aspen                      |                        |
| Mature Jack or Lodgepole Pine       |                        |
| Ponderosa Pine-Douglas-fir          |                        |
| Red and White Pine                  |                        |
| Spruce-Lichen Woodland              |                        |
| White Spruce-Balsam Slash           |                        |

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

| LOCATION ACCURACY        | EXPIRY DATETIME |
|--------------------------|-----------------|
| 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:**  
**SITE\_ACCESS\_METHOD\_LIST**

| <b>SITE ACCESS METHOD</b> | <b>EXPIRY DATETIME</b> |
|---------------------------|------------------------|
| 4x4 Vehicle               |                        |
| ATV Vehicle               |                        |
| Boat, Motorized           |                        |
| Canoe                     |                        |
| Float Aircraft            |                        |
| Foot                      |                        |
| Helicopter                |                        |
| Railroad                  |                        |
| Road                      |                        |
| Snowmobile                |                        |
| Snowshoe                  |                        |
| Wheeled Aircraft          |                        |

**LIO Lookup Table Values:**

**SITE\_STATUS**

| SITE STATUS CODE | SITE STATUS DESCR | EXPIRY DATETIME |
|------------------|-------------------|-----------------|
| D                | Developed         |                 |
| P                | Proposed          |                 |
| ^                | Data Load         | 1996-09-13      |

**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 |