

Land Information Ontario Data Description

OHN - Watercourse

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LIO Class Description

OHN - Watercourse

Class Short Name: OHNWCRS

Version Number: 1

Class Description:

Watercourse are line features (natural and constructed) that describe various realizations of flowing water at a medium scale of 1:10K in Southern Ontario, 1:20K in Northern Ontario and 1:50K in the Far North.

Abstract Class Name: SPSLINE

Abstract Class

Description:

Spatial Single-Line: An object is represented by ONE and ONLY ONE line segment. Line segments MUST be continuous. Examples: geological fault lines, roads at a 1: 600,000 scale.

Metadata URL:

**Tables in LIO Class:
OHN - Watercourse**

OHN_WATERCOURSE_FT

Watercourses are line features (natural and constructed) that describe various realizations of surface water.

Column Name	Column Type	Mandatory	Short Name	Valid Values
OGF_ID	NUMBER(13,0)	Yes	OGF_ID	
Ontario Geospatial Feature (OGF) Id. A unique numeric provincial identifier assigned to each object.				
WATERCOURSE_TYPE	VARCHAR2(20)	Yes	WCRS_TYPE	'Ditch', 'Stream', 'Virtual Connector', 'Virtual Flow' (See OHN_WATERCOURSE_TYPE_LIST table)
The type of watercourse. Default = Stream				
OFFICIAL_NAME_LABEL	VARCHAR2(100)	No	OFF_NAME	
The value stored in this field is a concatenation of the Geographic Name Extent Fields OFFICIAL_NAME and ALTERNATE_NAME.				
GEL_NAME_IDENT	VARCHAR2(32)	No	GEL_IDENT	
Geographic Named Extent Layer (GEL) Identifier. A unique, 32 character alpha-numeric identifier used to distinguish an object.				
FLOW_DIRECTION_VERIFIED_IND	VARCHAR2(3)	Yes	FLOW_VERIF	
A Yes/No indicator of known correct geometry direction. Default = No.				
PERMANENCY	VARCHAR2(20)	Yes	PERMANENCY	
An indication of the permanency of a water feature described as 1) Permanent: Permanent water features are known to exist for at least 9 months a year. 2) Intermittent: Intermittent water features are known to exist for less than 9 months a year. Default = Permanent				
FLOW_CLASSIFICATION	VARCHAR2(20)	Yes	FLOW_CLASS	
This classification defines the primary (main) and secondary (alternate) routes of a water flow network. Secondary streams are indicative of divergent flow where there are multiple routes traversing through a system (eg. a braided stream network or delta). Classifications are described as Primary: The main route of a water flow network. Secondary: The alternate route of a water flow network. Flow Gap: A secondary flow segment which exists to represent proper flow routing but can be removed to break loops in divergent flow. Default = Primary				
LOCATION_ACCURACY	VARCHAR2(25)	Yes	ACCURACY	'Not Applicable', 'Over 10,000 metres', 'Within 1 metre', 'Within 10 metres', 'Within 10,000 metres', 'Within 100 metres', ... (See LOCATION_ACCURACY_LIST table)
The degree of conformity or closeness of a measurement within the database to its true value in the world.				
VERIFICATION_STATUS_FLG	VARCHAR2(10)	No	VERISTT_FL	
An indication as to whether a qualified employee has verified the existence of the geographic unit.				
VERIFICATION_STATUS_DATE	DATE	No	VERISTT_DT	
Date that the geographic unit was verified/validated.				
GENERAL_COMMENTS	VARCHAR2(2000)	No	COMMENTS	

General business area comments about the feature.

SYSTEM_CALCULATED_LENGTH	NUMBER(16,3)	No	SYS_LENGTH
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The length of a line measured in metres.

GEOMETRY_UPDATE_DATETIME	DATE	No	GEO_UPD_DT
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Date/time the geometry was created or last modified in the source database. Required only for LIO Editor maintained data classes.

EFFECTIVE_DATETIME	DATE	No	EFF_DATE
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Date/time the record was created or last modified in the source database.

SHAPE	SDO_GEOMETRY	No	SHAPE
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Geometry attribute.

CLASS_JUSTIFICATION

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

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

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

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

JUSTIFICATION_DATE	DATE	Yes	JUSTIF_DT	
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Date that the geographic feature was justified.

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

CLASS_SOURCE

Intersection table between the data class and Source List table.

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

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

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

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

SOURCE_DESCR	VARCHAR2 (2000)	No	SOURCE_DES
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Text providing details about the source.

METHOD_DESCR	VARCHAR2 (2000)	No	METHOD
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The type of method, tools, and techniques used in observing/collecting/recording the Source. It may also include a URL where users could get further information on the method used.

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

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

LOCATION_ACCURACY_LIST

List of valid location accuracies associated to a mapped feature.

Column Name	Column Type	Mandatory	Short Name	Valid Values
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OHN_WATERCOURSE_TYPE_LIST

List of valid OHN WATERCOURSE_TYPES.

Column Name	Column Type	Mandatory	Short Name	Valid Values
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WATERCOURSE_TYPE	VARCHAR2 (20)	Yes	WCRS_TYPE
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The type of watercourse.

DESCRIPTION	VARCHAR2 (225)	No	TYPE_DESCR
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Describes the Watercourse Type

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

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

SOURCE_LIST

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

Column Name	Column Type	Mandatory	Short Name	Valid Values
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SOURCE_NAME	VARCHAR2	Yes	NAME
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(100)

The name of the source.

SOURCE_DATE	VARCHAR2 (50)	No	SRC_DATE
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The date of the source.

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

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

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

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

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

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

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

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:

OHN_WATERCOURSE_TYPE_LIST

WATERCOURSE TYPE	DESCRIPTION	EXPIRY DATETIME
Ditch	A small, open constructed channel for the purpose of conveying water. Open conduits, constructed drains, irrigation channels, aqueducts, penstocks, flumes and sluices are included.	
Stream	A natural body of water (such as a river, stream or creek) through which water flows.	
Virtual Connector	An inferred watercourse feature needed to maintain the continuity of water flow between adjacent water features. These will be lines where flow is known to exist but is not directly mapped, such as underground conduits.	
Virtual Flow	An inferred watercourse feature needed to maintain the continuity of water flow between adjacent water features. These will be lines through a waterbody that connect all adjacent water features.	

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 Photography		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 Assessment 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 Resources	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

LIO Table Relationships for Class:

OHN - Watercourse

