Unclassified

Land Information Ontario
Data Description

Constructed Drain

Disclaimer

This technical documentation has been prepared by the Ministry of Natural Resources (the "Ministry"), representing Her Majesty the Queen in right of Ontario. Although every effort has been made to verify the information, this document is presented as is, and the Ministry makes no guarantees, representations or warranties with respect to the information contained within this document, either express or implied, arising by law or otherwise, including but not limited to, effectiveness, completeness, accuracy, or fitness for purpose. The Ministry is not liable or responsible for any loss or harm of any kind arising from use of this information.

Some of the information in this document is nonconvertible or has not yet been made accessible and may not be compatible with assistive technologies. If you need any of the information in an alternate format, please contact LIO Support at lio@ontario.ca or (705) 755-1878.

LIO Class Catalogue

Constructed Drain

Class Short Name: CONSTDRN

Version Number: 3

Class Description:

Constructed Drains are watercourses in the form of ditches, natural watercourses that have been modified to improve drainage, or buried tile systems.

Abstract Class Name: SPMLINE

Abstract Class Description:

Spatial Multi-Line: An object is represented by ONE or MORE line segments. Line segments MAY be continuous and/or disjointed. Example: "Utility Line". Several line segments for a "Hydro Line" belonging to a particular grid may be interrupted by Utility Site "Hydro Stations".

Tables in LIO Class:

Constructed Drain

CONSTRUCTED_DRAIN_FT

Constructed Drains are water lines or watercourses in the form of ditches, natural water courses that have been modified to improve drainage, or buried tile systems.

Column Name	Column Type	Mandatory	Short Name	Valid Values
OGF_ID	NUMBER (13,0)	Yes	OGF_ID	
A unique numeric provincial identifier assigned to each object.				
DFO_IDENT	VARCHAR2 (20)	No	DFO_IDENT	
Unique identifier for a constructed drain.				
DRAIN_REACH	VARCHAR2 (100)	No	REACH	
The drain reach as defined in the Drainage Report. The value is comprised of: Geographic Township Name_Drain Name_Start Station_EndStation				
OFFICIAL_NAME	VARCHAR2 (100)	No	NAME	
The official name of the constructed drain.				
LEGAL_STATUS	VARCHAR2 (50)	No	LEGAL_STAT	Municipal Drain, Mutual Agreement Drain, Award Drain, Unorganized Territory Drain, Private Drain, Roadside Ditch, Canal, Natural
The legal authority, if any, for a constructed drain. The potential values include: 1) Municipal Drain - constructed by a municipality under the Drainage Act through petition or requisition 2) Mutual Agreement Drain - privately constructed by agreement under the authority of the Drainage Act 3) Award Drain - constructed by a municipality under the authority of the Ditches and Watercourse Act 4) Unorganized Territory Drain - constructed by OMAF under the authority of the Drainage Act 5) Private Drain - constructed by private land owners not using any legislative authority 6) Roadside Ditch - an artificial trench dug in the ground parallel to the roadway for the purpose of receiving and conducting water 7) Canal - an artificial water course designed for navigation, drainage, or irrigation, constructed under the authority of the Federal Government 8) Natural - a watercourse that has had no anthropogenic (i.e. human) influences or has been designated as a natural watercourse by the court				
DRAIN_TYPE	VARCHAR2 (15)	No	DRAIN_TYPE	Open, Closed/Tiled
A classification of the type of drain. Potential types include: 1) Open 2) Closed/Tiled				
DRAIN_PERMANENCY	VARCHAR2 (20)	No	PERMANENCY	Permanent, Intermittent
Indicates if the water flow in the drain is permanent or occurs on an intermittent basis.				
BYLAW_NUMBER	VARCHAR2 (20)	No	BYLAW_NUM	
Municipal bylaw number.				

DFO_CLASS_AUTHORIZATION_TYPE	VARCHAR2 (3)	No	DFO_CLASS	

The Department of Fisheries and Oceans Class Authorization System for constructed drains was developed to balance the need to protect fish habitat and the need to provide drainage to agricultural land. For a description of individual authorization types please contact the Department of Fisheries and Oceans.

DFO_CLASSIFICATION_YEAR	NUMBER (4,0)	No	CLASSIF_YR	

The year that the constructed drain was classified as a specific DFO Class Authorization Type.

GENERAL_COMMENTS	VARCHAR2 (2000)	No	COMMENTS	

Unstructured description, additional notes, or further explanation of long length.

REPORT_URL	VARCHAR2 (254)	No	REPORT_URL	

The address of a computer or a document 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.

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 accuracy of the location of the feature at an OBM scale. The degree of conformity or closeness of a measurement to the true value.

GEOMETRY_UPDATE_DATETIME	DATE	No	GEO_UPD_DT	

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

EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	

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

CLASS_JUSTIFICATION

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

Column Name	Column Type	Mandatory	Short Name	Valid Values
OGF_ID	NUMBER (13,0)	Yes	OGF_ID	

A unique numeric provincial identifier assigned to each object.

JUSTIFICATION_REASON	VARCHAR2 (2000)	Yes	REASON	

Reason for justification of the existence of a geographic feature.

CLASS_SHORT_NAME	VARCHAR2 (8)	Yes	CLASS_NAME	

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

JUSTIFICATION_DATE	DATE	Yes	JUSTIF_DT	

Date that the geographic feature was justified.

EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE

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
OGF_ID	NUMBER (13,0)	Yes	OGF_ID	
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 Photograpy, City of Ottawa Borehole Database, ... (See SOURCE_LIST table)
The name of the source.				
SOURCE_DETAIL	VARCHAR2 (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.				
CLASS_SHORT_NAME	VARCHAR2 (8)	Yes	CLASS_NAME	
Unique abbreviation of the concrete class name (primary key)				
SOURCE_DESCR	VARCHAR2 (2000)	No	SOURCE_DES	
Text providing details about the source.				
METHOD_DESCR	VARCHAR2 (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.				
SOURCE_APPLICABILITY	VARCHAR2 (20)	No	APPLICABIL	
How the source contributes to the feature's definition.				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				

CONSTRUCTED_DRAIN_ACTIVITY

The prescribed activity that is being done to a constructed drain.

Column Name	Column	Mandatory	Short	Valid Values

	Type		Name	
CONSTRUCTED_DRAIN_ID	NUMBER (13,0)	Yes	DRAIN_ID	
System generated identifier, unique at the application level.				
DRAIN_ACTIVITY	VARCHAR2 (50)	Yes	ACTIVITY	Abandonment, Beaver Control, Beaver Dam Removal, Catchbasin Cleanout, Clean-out, Construction Improved, ... (See CONS_DRAIN_ACTIVITY_LIST table)
The activity that will be taking place on the drain.				
DRAIN_ACTIVITY_YEAR	NUMBER (4,0)	Yes	ACTIV_YEAR	
The year for which a prescribed activity is being carried out on a drain.				
COMMENTS	VARCHAR2 (2000)	No	COMMENTS	
Comments relating to the activity carried out on a drain. This may include information such as the portion of the drain that was worked on.				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				

CONS_DRAIN_ACTIVITY_LIST

A list of the available activities that can be performed on a constructed drain.

Column Name	Column Type	Mandatory	Short Name	Valid Values
DRAIN_ACTIVITY	VARCHAR2 (50)	Yes	ACTIVITY	
The activity that will be taking place on the drain.				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				
EXPIRY_DATETIME	DATE	No	EXP_DATE	
Date/time that the record was expired from use.				

LOCATION_ACCURACY_LIST

List of valid LOCATION_ACCURACYs.

Column Name	Column Type	Mandatory	Short Name	Valid Values
LOCATION_ACCURACY	VARCHAR2 (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.				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	

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

EXPIRY_DATETIME DATE No EXP_DATE

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. In 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
SOURCE_NAME	VARCHAR2 (100)	Yes	NAME	
The name of the source.				
SOURCE_DATE	VARCHAR2 (50)	No	SRC_DATE	
The date of the source.				
SOURCE_ORIGINATOR	VARCHAR2 (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)				
SOURCE_SCALE	VARCHAR2 (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.				
HORIZONTAL_DATUM	VARCHAR2 (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.				
VERTICAL_DATUM	VARCHAR2 (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.				
SOURCE_PROJECTION	VARCHAR2 (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.				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				

EXPIRY_DATETIME	DATE	No	EXP_DATE

Date/time that the record was expired from use.

LIO Lookup Table Values:

CONS_DRAIN_ACTIVITY_LIST

DRAIN ACTIVITY	EXPIRY DATETIME
Abandonment	
Beaver Control	
Beaver Dam Removal	
Catchbasin Cleanout	
Clean-out	
Construction Improved	
Construction New	
Dredge Canals	
Erosion Control	
Flush Tile	
General	
Heavy Brushing/Cleaning	
Level Spoil	
Light Brushing	
New Assessment Schedule	
Pump Operation Costs	
Repair Bank	
Repair Bridge	
Repair Catchbasin	
Repair Culverts/Endwalls	
Repair Dyke	
Repair Outlet	
Repair Pump	
Repair Rip Rap	
Repair Tile	
Sediment Trap Maintenance	
Seeding	
Spraying	
Tile Inspection (Video)	

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:

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 Traverse 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