

User Guide
for
Ontario Trail Network (OTN)
Trailhead and Trail Segment
LIO Data Classes

**Provincial Mapping Unit
Mapping and Information Resources Branch
Corporate Management and Information Division
Ministry of Natural Resources and Forestry**

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Executive Summary

Key Words

Ontario Trail Network, OTN, Trails, Trailhead, Recreation

Abstract

This user guide details the specifications for the Ontario Trail Network (OTN), including the Trailhead and Trail Segment Land Information Ontario (LIO) Data Classes. The Ontario Trail Network (OTN) contains geospatial networks of trails in urban, rural and wilderness settings managed by a named organization for recreation, active living or tourism purposes.

Table of Contents

Disclaimer	2
Additional Information.....	2
Executive Summary	3
Key Words.....	3
Abstract.....	3
Table of Contents.....	4
List of Figures.....	6
List of Acronyms.....	7
1. Introduction	8
2. Objectives	8
3. Data Classes.....	8
OTN Trailhead (OTNTHD)	8
OTN Trail Segment (OTNSEG).....	8
4. Model Diagram: OTN Trailhead (OTNTHD) and OTN Trail Segment (OTNSEG)	9
5. Data Description.....	10
OTN_TRAILHEAD_FT	10
OTN_TRAIL_SEGMENT_FT	14
OTN_OTC_TRAIL_CHARACTER.....	17
OTN_TRAIL_ACCESS_POINT	17
OTN_TRAIL_AMENITY.....	18
OTN_TRAIL_OPERATIONAL_SEASON	18
OTN_TRAIL_PERMITTED_USE.....	19
OTN_TRAILHEAD_AND_TRAIL_SEG	20
6. Links to Additional Information	21
APPENDIX A: LIO Lookup Tables and Values.....	22
LOCATION_ACCURACY_LIST	22
OTN_ACTIVITY_LIST	23
OTN_AMENITY_LIST	24
OTN_OFSC_TRAIL_DESIG_LIST	25
OTN_ORCKA_SWIFTWATER_LIST	27
OTN_OTC_TRAIL_CHALLENGE_LIST	28
OTN_OTC_TRAIL_CHARACTER_LIST	29

OTN_PERMITTED_USE_LIST	31
OTN_STRUCTURE_LIST	32
OTN_SURFACE_DETAIL_LIST.....	35
OTN_TRAIL_GROUPING_LIST.....	36
OTN_TRILLIUM_NETWORK_TYPE_LIST	49
APPENDIX B: Table Key Dependency and Relationship Index	51
Main Business Area Tables.....	53
Lookup Table Indexes	54
APPENDIX C: Frequently Asked Questions.....	57
Why don't I see the trail name on the OTN Trail Segment?	57
How do I see trail names and trail segments in my map?	57
Why are there no trail segments associated with a specific trailhead?.....	59
I want to provide information to the OTN.....	59
Is there a place I can see the trail data?.....	59

List of Figures

Figure 1: Primary Key example	51
Figure 2: Foreign Key example	51
Figure 3: Alternate Key example	51
Figure 4: Example of an Identifying Relationship	52
Figure 5: Example of a Non-identifying Relationship.....	52
Figure 6: Model Diagram Relationship Symbology Table.....	52
Figure 7: ArcMap's Attributes Window showing Trail information.....	57
Figure 8: ArcMap's Join Field tool, adding Trailhead ID to Trail Segment.....	58
Figure 9: ArcMap's Join Field tool, adding Trail Name to Trail Segment.....	59

List of Acronyms

ATV: All Terrain Vehicle

LIO: Land Information Ontario

LUT: Lookup Table

MNRF: Ontario Ministry of Natural Resources and Forestry

OFSC: Ontario Federation of Snowmobile Clubs

OGF: Ontario Geospatial Feature

ORCKA: Ontario Recreational Canoe and Kayak Association

OTC: Ontario Trails Council

OTN: Ontario Trail Network

TDMO: Trail Development and Management Organizations

TTN: Trillium Trail Network

1. Introduction

The Ontario Trail Network (OTN) contains geospatial networks of trails in urban, rural and wilderness settings managed by a named organization for recreation, active living or tourism purposes. The OTN contains hiking, running and walking trails; cycling and mountain bike routes; all terrain vehicle trails, snowmobiling and dirt bike trails; x-country skiing and snow shoeing trails; equestrian trails; and canoe and portage routes.

The OTN project is the combined effort of trail organizations and government to create an accessible trail layer.

For more information on the OTN contact lio@ontario.ca.

2. Objectives

This LIO Data Class user guide is intended for users of the OTN Trailhead (OTNTHD) and Trail Segment (OTNSEG) data classes. The document describes the extent and context of the information collected for the data classes.

3. Data Classes

OTN Trailhead (OTNTHD)

OTN Trailhead layer features are represented as points identifying the start of the trail as well as secondary access points. A trailhead exists for each trail which may consist of one or more trail segments. OTN Trailhead points describe the characteristics of a trail such as trail name, length, type, permitted use, amenity, and organization.

OTN Trail Segment (OTNSEG)

OTN Trail Segment contains trail segments that define a linear corridor or a looping system through the natural or urban environment.

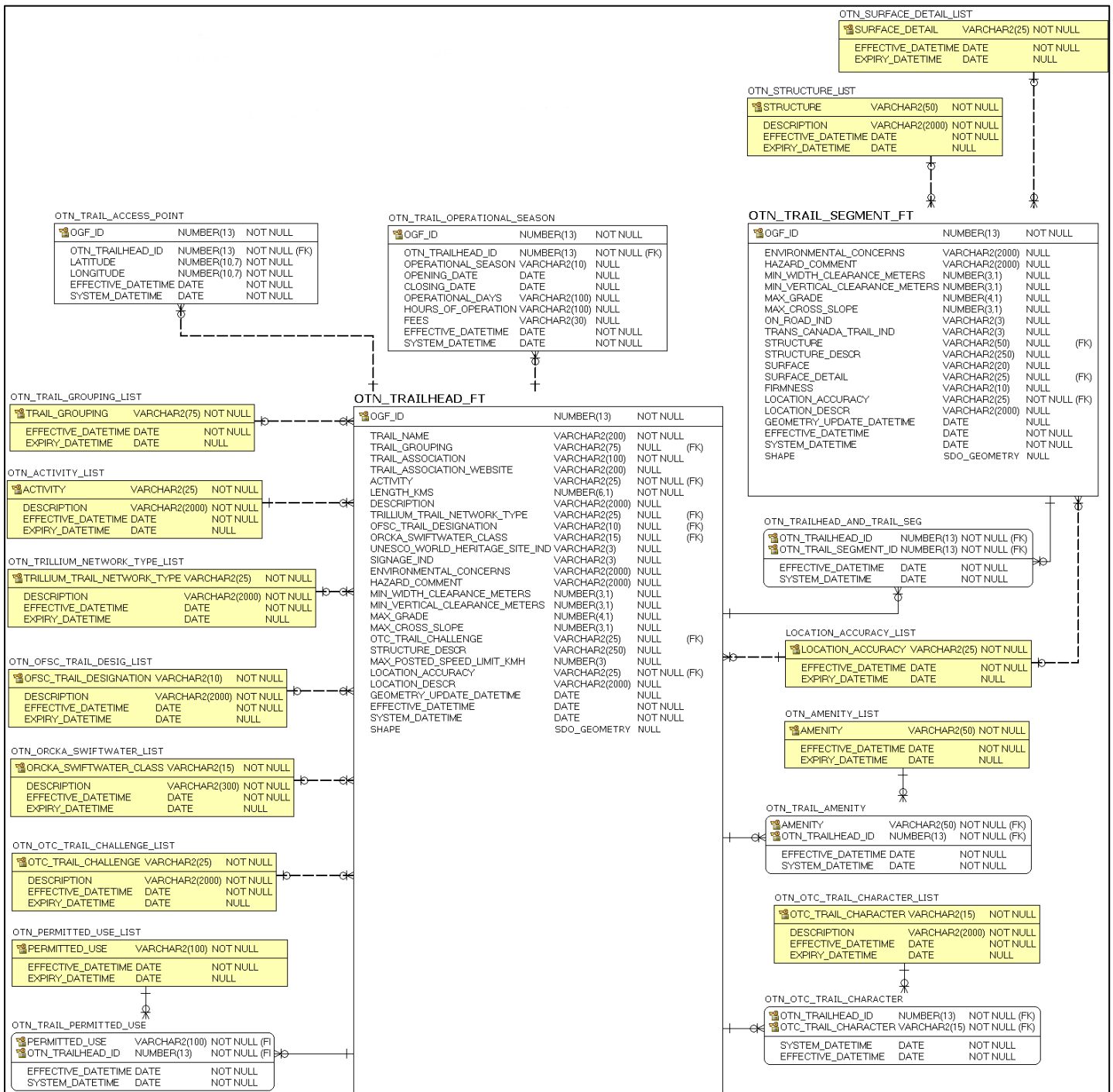
The OTN Trailhead can be linked to the OTN Trail Segment to connect the linear corridor / linear segment of the trail to the trailhead.

4. Model Diagram: OTN Trailhead (OTNTHD) and OTN Trail Segment (OTNSEG)

Physical Model Diagram for: OTN Trailhead (OTNTHD) and OTN Trail Segment (OTNSEG)

Model Effective Date: 2012-JUN-14

Note: Where applicable to this model: Tables with a “_LIST” extension (shaded yellow) = Lookup Table (LUT)



5. Data Description

The main business area table(s) for this model can be found below. Associated lookup tables will be listed in [Appendix A](#) of this document and are hyperlinked where referenced in this section.

OTN_TRAILHEAD_FT

The point at which the trail starts. A trailhead exists for each trail. A trail may consist of one or more trail segments.

Column Name	Column Type	Mandatory	Short Name	Description
OGF_ID	NUMBER(13)	Yes	OGF_ID	A unique numeric provincial identifier assigned to each object.
TRAIL_NAME	VARCHAR2(200)	Yes	TRAIL_NAME	The name that the trail is most commonly known as.
TRAIL_GROUPING	VARCHAR2(75)	No	GROUPING	Individual trails or organizations associated with a larger trail organization or association (ex. Bruce Trail, Voyageur Trail, Algonquin Park). Permissible Values: See OTN TRAIL GROUPING LIST lookup table in appendix
TRAIL_ASSOCIATION	VARCHAR2(100)	Yes	ASSOC	The managing trail group that can be contacted regarding issues related to trail information, maintenance, operations, administration and problems on the trail.
TRAIL_ASSOCIATION_WEBSITE	VARCHAR2(200)	No	WEBSITE	The URL for the trail association website address.
ACTIVITY	VARCHAR2(25)	Yes	ACTIVITY	The activity permitted on a trail segment. Permissible Values: See OTN ACTIVITY LIST lookup table in appendix
LENGTH_KMS	NUMBER(6,1)	Yes	LENGTH_KMS	The length as identified by the trail association or calculated by the sum of trail segment lengths. Measured in Kilometers.
DESCRIPTION	VARCHAR2(2000)	No	DESCRIPT	Text providing details about something.

Column Name	Column Type	Mandatory	Short Name	Description
TRILLIUM_TRAIL_NETWORK_TYPE	VARCHAR2(25)	No	TRILLIUM_T	<p>A classification system assigned by the Trillium Trail Network to trails. The Trillium Trail Network (TTN) represents an opportunity for trails to link together between regions and communities in Ontario. The TTN consists of Ontario Trail Council member trails registering their trail as a network member.</p> <p>Trails will:</p> <ul style="list-style-type: none"> • Be readily accessible to communities along the TTN • Incorporate multi and single use trails • Can have both year-round and single season trails • Include trails of different lengths, topography, uses and locations <p>Valid Values: See OTN TRILLIUM NETWORK TYPE LIST lookup table in appendix</p>
OFSC_TRAIL_DESIGNATION	VARCHAR2(10)	No		<p>Name of the trail designation as defined by the OFSC Ontario Federation of Snowmobile Clubs.</p> <p>Valid Values: See OTN OFSC TRAIL DESIG LIST lookup table in appendix</p>
ORCKA_SWIFTWATER_CLASS	VARCHAR2(15)	No	ORCKA_CLAS	<p>A classification of the water defined by the Ontario Recreational Canoeing and Kayaking Association. Defined by international categories of swiftwater for determining moving water. Applies to trails on open water only (canoe routes).</p> <p>Valid Values: See OTN ORCKA SWIFTWATER LIST lookup table in appendix</p>

Column Name	Column Type	Mandatory	Short Name	Description
UNESCO_WORLD_HERITAGE_SITE_IND	VARCHAR2(3)	No	UNESCO	Indicates the trail is designated as a United Nations Educational, Scientific and Cultural Organization (UNESCO) site for the identification, protection and preservation of cultural and natural heritage of outstanding value to humanity. Valid Values: Yes, No
SIGNAGE_IND	VARCHAR2(3)	No	SIGNAGE	Indicates whether signage exists on trails or not. Valid Values: Yes, No
ENVIRONMENTAL_CONCERNS	VARCHAR2(2000)	No	ENVIRON	A Description of known Environmental concerns.
HAZARD_COMMENT	VARCHAR2(2000)	No	HAZARD_COM	Unstructured description, additional notes, or further explanation regarding sources of danger at a feature.
MIN_WIDTH_CLEARANCE_METERS	NUMBER(3,1)	No		The minimum width of the trail. This is critical for people who use mobility devices such as strollers, walkers and wheelchairs. The average manual wheelchair has a wheelbase width of less than 28 inches (0.71 meters). If a trail narrows to 26 inches (0.66 meters), persons in a 28-inch wheelchair will know that they will not be able to venture past this point unless they are capable of transferring out of their chair and maneuvering their chair through this narrow location. Equestrians are another example of trail users that require a specific width, depending on the size of the horse. Defined in meters.
MIN_VERTICAL_CLEARANCE_METERS	NUMBER(3,1)	No	MIN_VERTIC	The minimum height above the trail that is free from protruding objects and overhead obstructions, such as tree branches and bridges. Measured in meters.
MAX_GRADE	NUMBER(4,1)	No	MAX_GRADE	The maximum grade of the trail. Grade is defined as the maximum percent grade of rise (ascent) or fall (descent) of the slope of the trail tread parallel to the path of travel. Calculated as "vertical distance/horizontal distance".

Column Name	Column Type	Mandatory	Short Name	Description
MAX_CROSS_SLOPE	NUMBER(3,1)	No	MAX_SLOPE	The maximum cross slope on the trail. Cross slope is the average elevation change from one side of the trail across to the other side, measured at a right angle to the path of travel.
OTC_TRAIL_CHALLENGE	VARCHAR2(25)	No	OTC_CHALL	The difficulty of the trail, defined by the Ontario Trails Council. Defined by the maximum trail challenge over the length of the trail. Valid Values: See OTN OTC TRAIL CHALLENGE LIST lookup table in appendix
STRUCTURE_DESCR	VARCHAR2(250)	No	STRUCT_D	A description of the trail structure.
MAX_POSTED_SPEED_LIMIT_KMH	NUMBER(3)	No	MAX_SPEED	Posted speed limit that is different from the Trail default. For a shared use trail, where there are different speed limits for different modes of transportation, the maximum posted speed limit will be recorded. Measured in kilometers per hour.
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. Valid Values: See LOCATION ACCURACY LIST lookup table in appendix
LOCATION_DESCR	VARCHAR2(2000)	No	LOC_DES	Description of the area or directions on how to get to the site.
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.
SYSTEM_DATETIME	DATE	Yes	SYS_DATE	Date/time the record was loaded into or last modified in the LIO database.
SHAPE	SDO_GEOMETRY	No	SHAPE	Geometry attribute.

OTN_TRAIL_SEGMENT_FT

A trail segment is a line feature which defines a linear corridor through the natural or urban environment. These corridors may be single segments or form a looping system. One trail segment is distinguished from another trail segment within the same trail by having different features.

Column Name	Column Type	Mandatory	Short Name	Description
OGF_ID	NUMBER(13)	Yes	OGF_ID	A unique numeric provincial identifier assigned to each object.
ENVIRONMENTAL_CONCERNS	VARCHAR2(2000)	No	ENVIRON	A description of known environmental concerns.
HAZARD_COMMENT	VARCHAR2(2000)	No	HAZARD_COM	Unstructured description, additional notes, or further explanation regarding sources of danger at a feature.
MIN_WIDTH_CLEARANCE_METERS	NUMBER(3,1)	No	MIN_WIDTH	The minimum width of the trail segment. This is critical for people who use mobility devices such as strollers, walkers and wheelchairs. The average manual wheelchair has a wheelbase width of less than 28 inches (0.71 meters). If a trail narrows to 26 inches (0.66 meters), persons in a 28-inch wheelchair will know that they will not be able to venture past this point unless they are capable of transferring out of their chair and maneuvering their chair through this narrow location. Equestrians are another example of trail users that require a specific width, depending on the size of the horse. Defined in meters.
MIN_VERTICAL_CLEARANCE_METERS	NUMBER(3,1)	No	MIN_VERTIC	The minimum height above the trail segment that is free from protruding objects and overhead obstructions, such as tree branches and bridges. Measured in meters.
MAX_GRADE	NUMBER(4,1)	No	MAX_GRADE	The maximum grade of the trail segment. Grade is defined as the maximum percent grade of rise (ascent) or fall (descent) of the slope of the trail tread parallel to the path of travel. Calculated as "vertical distance/horizontal distance".

Column Name	Column Type	Mandatory	Short Name	Description
MAX_CROSS_SLOPE	NUMBER(3,1)	No	MAX_SLOPE	The maximum cross slope on the trail segment. Cross slope is the average elevation change from one side of the trail across to the other side, measured at a right angle to the path of travel.
ON_ROAD_IND	VARCHAR2(3)	No	ON_ROAD	Indicates whether a trail is On Road or Off Road. If indicator value is yes, then the trail is "On Road". If indicator value is no, then the trail is "Off Road". Valid Values: Yes, No
TRANS_CANADA_TRAIL_IND	VARCHAR2(3)	No	TRANS_CAN	Indicates whether the trail is defined as a portion of the Trans Canada Trail. The Trans Canada Trail is a shared-use recreational trail that winds its way through every province and territory and will span approximately 18 078 kilometers. The trail will accommodate five core activities: walking, cycling, horseback riding, cross-country skiing and snowmobiling. Valid Values: Yes, No
STRUCTURE	VARCHAR2(50)	No	STRUCTURE	The name of the trail structure. Trail structures normally respond to user safety and environmental protection issues-not user convenience issues. In this context, almost all structures refer to passing through or across wet areas or open water such as bridges, puncheon, or boardwalks. Steps and stiles apply to passage of topographical or human-caused barriers.
STRUCTURE_DESCR	VARCHAR2(250)	No	STRUCT_D	A description of the trail segment structure.
SURFACE	VARCHAR2(20)	No	SURFACE	A description of the trail segment surface(s).
SURFACE_DETAIL	VARCHAR2(25)	No	SURF_DET	Specific description of the trail surface. The type of trail surface has a great amount of influence on the degree of access for all user groups.

Column Name	Column Type	Mandatory	Short Name	Description
FIRMNESS	VARCHAR2(10)	No	FIRMNESS	The firmness of the trail surface on a trail segment. Accessibility notes: Surface firmness primarily affects the amount of energy required to ambulate or propel a wheelchair across the surface. Surface stability mainly influences the amount of energy required to maneuver or turn a wheelchair through the surface. In addition, for persons that use crutches or walkers, lack of surface stability would pose a potentially hazardous situation if the device moves while the person leans on the device for support during walking.
LOCATION_ACCURACY	VARCHAR2(25)	Yes	ACCURACY	The degree of conformity or closeness of a measurement within the database to its true value in the world. Valid Values: See LOCATION ACCURACY LIST lookup table in appendix
LOCATION_DESCR	VARCHAR2(2000)	No	LOC_DES	Description of the area or directions on how to get to the site.
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.
SYSTEM_DATETIME	DATE	Yes	SYS_DATE	Date/time the record was loaded into or last modified in the LIO database.
SHAPE	SDO_GEOMETRY	No	SHAPE	Geometry attribute.

OTN_OTC_TRAIL_CHARACTER

Information related to the trail's character.

Column Name	Column Type	Mandatory	Short Name	Description
OTN_TRAILHEAD_ID	NUMBER(13)	Yes	TRAIL_ID	A unique numeric provincial identifier (FMF Object Id).
OTC_TRAIL_CHARACTER	VARCHAR2(15)	Yes	OTC_CHAR	The trail character as defined by the Ontario Trails Council. e.g. Historic, Urban, Natural. Valid Values: See OTN_OTC_TRAIL_CHARACTER_LIST lookup table in appendix
SYSTEM_DATETIME	DATE	Yes	SYS_DATE	Date/time the record was loaded into or last modified in the LIO database. DEFAULT: SYSDATE
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database.

OTN_TRAIL_ACCESS_POINT

Locations through which a trail can be accessed.

Column Name	Column Type	Mandatory	Short Name	Description
OGF_ID	NUMBER(13)	Yes	OGF_ID	A unique numeric provincial identifier assigned to each object.
OTN_TRAILHEAD_ID	NUMBER(13)	Yes	TRAIL_ID	A unique numeric provincial identifier (FMF Object Id).
LATITUDE	NUMBER(10,7)	Yes	LATITUDE	The latitude in decimal degrees. For example: 50.1234567
LONGITUDE	NUMBER(10,7)	Yes	LONGITUDE	The longitude in decimal degrees. Note that all longitude values in the Western Hemisphere will be negative. For example: -85.1234567
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database.
SYSTEM_DATETIME	DATE	Yes	SYS_DATE	Date/time the record was loaded into or last modified in the LIO database. DEFAULT: SYSDATE

OTN_TRAIL_AMENITY

Amenities located at a trail point.

Column Name	Column Type	Mandatory	Short Name	Description
AMENITY	VARCHAR2(50)	Yes	AMENITY	Features located on trail, includes infrastructure, signage, reservation information etc. Valid Values: See OTN AMENITY LIST lookup table in appendix
OTN_TRAILHEAD_ID	NUMBER(13)	Yes	TRAIL_ID	Unique ID for Trailhead.
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database.
SYSTEM_DATETIME	DATE	Yes	SYS_DATE	Date/time the record was loaded into or last modified in the LIO database. DEFAULT: SYSDATE

OTN_TRAIL_OPERATIONAL_SEASON

Information related to the trail's operational season and hours of operation.

Column Name	Column Type	Mandatory	Short Name	Description
OGF_ID	NUMBER(13)	Yes	OGF_ID	A unique numeric provincial identifier assigned to each object.
OTN_TRAILHEAD_ID	NUMBER(13)	Yes	TRAIL_ID	Unique ID for Trailhead.
OPERATIONAL_SEASON	VARCHAR2(10)	No	SEASON	A description of the season of operations for the trail. Valid Values: Spring, Summer, Fall, Winter, Annual
OPENING_DATE	DATE	No	OPENING_DT	The date when the trail opens.
CLOSING_DATE	DATE	No	CLOSING_DT	The date when the trail closes.
OPERATIONAL_DAYS	VARCHAR2(100)	No	DAYS	List of days that the trail is operational.
HOURS_OF_OPERATION	VARCHAR2(100)	No	HOURS	Hours of operation. Opening time to closing time. Described using either time stamps or a description (sunrise to sunset).

Column Name	Column Type	Mandatory	Short Name	Description
FEES	VARCHAR2(30)	No	FEES	A description of whether the trail requires any fees. Fees may include permitting or admission. Valid Values: None, Day Pass, Season Pass, Annual Pass, Donation, Reservations Required, Other
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database.
SYSTEM_DATETIME	DATE	Yes	SYS_DATE	Date/time the record was loaded into or last modified in the LIO database. DEFAULT: SYSDATE

OTN_TRAIL_PERMITTED_USE

The permitted uses on a trail.

Column Name	Column Type	Mandatory	Short Name	Description
PERMITTED_USE	VARCHAR2(100)	Yes	PERM_USE	Use permitted on the trail segment. Examples include skiing, hiking etc. Valid Values: See OTN_PERMITTED_USE_LIST lookup table in appendix
OTN_TRAILHEAD_ID	NUMBER(13)	Yes	TRAIL_ID	Unique ID for Trailhead.
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database.
SYSTEM_DATETIME	DATE	Yes	SYS_DATE	Date/time the record was loaded into or last modified in the LIO database. DEFAULT: SYSDATE

OTN_TRAILHEAD_AND_TRAIL_SEG

Index table for the many to many relationship between trail segment and trailhead.

Column Name	Column Type	Mandatory	Short Name	Description
OTN_TRAILHEAD_ID	NUMBER(13)	Yes	TRAIL_ID	Unique ID for Trailhead.
OTN_TRAIL_SEGMENT_ID	NUMBER(13)	Yes	SEGMENT_ID	Unique ID for Trail Segment.
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database.
SYSTEM_DATETIME	DATE	Yes	SYS_DATE	Date/time the record was loaded into or last modified in the LIO database. DEFAULT: SYSDATE

6. Links to Additional Information

- Official LIO Metadata Record for [OTN Trailhead](https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home?uuid=ce2148e6-a4c3-48b6-a734-82729f6ff3db)
(<https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home?uuid=ce2148e6-a4c3-48b6-a734-82729f6ff3db>)
- Official LIO Metadata Record for [OTN Trail Segment](https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home?uuid=de585e6f-ff96-4737-99af-ac26064bf3e2) data class
(<https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home?uuid=de585e6f-ff96-4737-99af-ac26064bf3e2>)
- [Ontario Trails Council \(OTC\)](http://www.ontariotrails.on.ca/) (<http://www.ontariotrails.on.ca/>)

APPENDIX A: LIO Lookup Tables and Values

LOCATION_ACCURACY_LIST

List of valid location accuracies.

Column Name	Column Type	Mandatory	Short Name	Description
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.

LOCATION_ACCURACY_LIST Permissible Values

LOCATION_ACCURACY	EXPIRY DATETIME
Not Applicable	Not applicable
Over 10,000 metres	Not applicable
Within 1 metre	Not applicable
Within 10 metres	Not applicable
Within 10,000 metres	Not applicable
Within 100 metres	Not applicable
Within 1000 metres	Not applicable
Within 2 metres	Not applicable
Within 20 metres	Not applicable
Within 200 metres	Not applicable
Within 2000 metres	Not applicable
Within 5 metres	Not applicable
Within 50 metres	Not applicable
Within 500 metres	Not applicable
Within 5000 metres	Not applicable

LOCATION_ACCURACY	EXPIRY DATETIME
AC Accurate (to 10m)	Not applicable
AP Approximate (to 500m)	Not applicable
GE General (to 10,000m)	Not applicable
MO Moderate (to 1000m)	Not applicable
RE Reliable (to 100m)	Not applicable
VA Very Accurate (to 2m)	Not applicable
VG Vague (to 100,000m)	Not applicable
^ Data Load	Not applicable

OTN_ACTIVITY_LIST

List of valid OTN activities.

Column Name	Column Type	Mandatory	Short Name	Description
ACTIVITY	VARCHAR2(25)	Yes	ACTIVITY	The activity permitted on a trail segment.
DESCRIPTION	VARCHAR2(2000)	Yes	DESCRIPTIO	A description of an inspection findings.
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE
EXPIRY_DATETIME	DATE	No	EXP_DATE	Date/time that the record was expired from use.

OTN_ACTIVITY_LIST Permissible Values

ACTIVITY	DESCRIPTION	EXPIRY DATETIME
Both	Access to Non-Motorized and Motorized Users.	Not applicable
Motorized	Available for ATV's, Off-Road Motorcycles, and snowmobiling.	Not applicable
Non-Motorized	Restrict motorized uses of a trail to all but wheel chairs, emergency access vehicles and vehicles with special permission.	Not applicable

OTN_AMENITY_LIST

List of valid OTN amenities.

Column Name	Column Type	Mandatory	Short Name	Description
AMENITY	VARCHAR2(50)	Yes	AMENITY	Features located on trail, includes infrastructure, signage, reservation information etc.
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE
EXPIRY_DATETIME	DATE	No	EXP_DATE	Date/time that the record was expired from use.

OTN_AMENITY_LIST Permissible Values

AMENITY	EXPIRY DATETIME
Beach	Not applicable
Bicycle Rental	Not applicable
Boat Launch	Not applicable
Camping	Not applicable
Designated Rest Areas	Not applicable
Dogs Permitted off a Leash	Not applicable
Dogs Permitted on a Leash	Not applicable
Equestrian Amenities	Not applicable
Fire Pits	Not applicable
First Aid Facilities	Not applicable
Lighting	Not applicable
Lookout	Not applicable
Other	Not applicable
Parking	Not applicable
Picnic Areas	Not applicable
Potable Drinking Water	Not applicable
Self Guiding Interpretive Trail	Not applicable

AMENITY	EXPIRY DATETIME
Ski Rental	Not applicable
Store	Not applicable
Telephone	Not applicable
Tower	Not applicable
Visitor Centre	Not applicable
Warm Up Shack	Not applicable
Washrooms	Not applicable
Watercraft Rental	Not applicable

OTN_OFSC_TRAIL_DESIG_LIST

Lookup table for Ontario Federation of Snowmobile Club designation.

Column Name	Column Type	Mandatory	Short Name	Description
OFSC_TRAIL_DESIGNATION	VARCHAR2(10)	Yes	OFSC_DESIG	Name of the trail designation as defined by the OFSC Ontario Federation of Snowmobile Clubs.
DESCRIPTION	VARCHAR2(2000)	Yes	DESCRIPTIO	The description of Ontario Federation of Snowmobile Club names.
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE
EXPIRY_DATETIME	DATE	No	EXP_DATE	Date/time that the record was expired from use.

OTN_OFSC_TRAIL_DESIG_LIST Permissible Values

ACTIVITY	DESCRIPTION	EXPIRY DATETIME
Club	Club trails are all other Snowmobile Trails maintained by the Club. Club trails are NOT TOPS Trails. Club trails provide access to local communities or services. Club trails are sanctioned and maintained to the same standards as TOPS Trails.	Not applicable
Connector	Connector trails link one Trunk Trail to another. They are designated by a one letter - three digit number - one letter combination (e.g. "A101D") where the letters indicate which two trunk Trails are being connected. Connector Trails are TOPS trails.	Not applicable
Feeder	Feeder trails feed traffic to Trunk Trails. These routes are designated by a letter and a 3-digit number (e.g. "C112"), where the letter indicates the Trunk Trail to which the trail leads. Feeder trails are TOPS trails.	Not applicable
Trunk	Trunk trails are the main routes for trans-provincial touring. They are designated by a single letter of the alphabet (e.g. "A") and are colour coded RED. Trunk trails are TOPS trails.	Not applicable

OTN_ORCKA_SWIFTWATER_LIST

Lookup table for Ontario Recreational Canoe and Kayak Association swiftwater classification system.

Column Name	Column Type	Mandatory	Short Name	Description
ORCKA_SWIFTWATER_CLASS	VARCHAR2(15)	Yes	ORCKA_CLAS	A classification of the water defined by the Ontario Recreational Canoeing and Kayaking Association. Defined by international categories of swiftwater for determining moving water. Applies to trails on open water only (canoe routes).
DESCRIPTION	VARCHAR2(300)	Yes	DESCRIPTIO	The description of the Ontario Recreational Canoe and Kayaking Association swiftwater classifications. Defined by international categories of swiftwater for determining moving water. Applies to trails on open water only. (Canoe routes).
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE
EXPIRY_DATETIME	DATE	No	EXP_DATE	Date/time that the record was expired from use.

OTN_ORCKA_SWIFTWATER_LIST Permissible Values

ORCKA_SWIFTWATER_CLASS	DESCRIPTION	EXPIRY DATETIME
Class I	Moving water with a few riffles and small waves. Few or no obstructions.	Not applicable
Class II	Easy rapids with waves up to one meter high and wide, clear channels that are obvious without scouting. Some manoeuvring is required.	Not applicable

ORCKA_SWIFT WATER_CLASS	DESCRIPTION	EXPIRY DATETIME
Class III	Rapids with high, irregular waves often capable of swamping an open canoe. Narrow passages that often require complex manoeuvring. May require scouting from shore.	Not applicable
Class IV	Long, difficult rapids with constricting passages that require precise manoeuvring in very turbulent waters. Scouting from shore is necessary, and conditions make rescue difficult. Not possible for open canoes. Boaters need ability to Eskimo roll.	Not applicable
Class V	Extremely difficult, long and very violent rapids with highly congested routes. Always should be scouted from shore. Rescue is difficult, significant hazard to life in the event of a mishap. Ability to Eskimo roll essential, unsuitable for open canoes.	Not applicable

OTN_OTC_TRAIL_CHALLENGE_LIST

Lookup table for Ontario Trails Council Trail Challenge categories.

Column Name	Column Type	Mandatory	Short Name	Description
OTC_TRAIL_CHALLENGE	VARCHAR2(25)	Yes	OTC_CHALL	The difficulty of the trail, defined by the Ontario Trails Council. Defined by the maximum trail challenge over the length of the trail.
DESCRIPTION	VARCHAR2(2000)	Yes	DESCRIPTIO	The description of the Ontario Trail Council Challenge Name Classification. The OTC Challenge is a difficulty rating defined by the council.
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE

Column Name	Column Type	Mandatory	Short Name	Description
EXPIRY_DATETIME	DATE	No	EXP_DATE	Date/time that the record was expired from use.

OTN_OTC_TRAIL_CHALLENGE_LIST Permissible Values

OTC_TRAIL_CHALLENGE	DESCRIPTION	EXPIRY DATETIME
Challenging	A trail system with a range of characteristics that are suitable for most in good physical condition. The nature of the trail requires steep climbing or covering long distances over a variety of land and water terrain.	Not applicable
Easy	A trail system with a range of geographical and physical characteristics suitable for all ages and states of physical condition.	Not applicable
Extreme	Rock or ice climbing, challenging whitewater, downhill/cross country/aggressive off-road cycling.	Not applicable
Moderate	A trail system with a range of characteristics suitable for the majority of individuals of all ages that practice a regular, active physical life style; in some cases individuals may require special equipment such as hiking boots.	Not applicable
Other	Other	Not applicable

OTN_OTC_TRAIL_CHARACTER_LIST

Lookup table for Ontario Trails Council Character categories.

Column Name	Column Type	Mandatory	Short Name	Description
OTC_TRAIL_CHARACTER	VARCHAR2(15)	Yes	OTC_CHAR	The trail character as defined by the Ontario Trails Council. e.g. Historic, Urban, Natural.

Column Name	Column Type	Mandatory	Short Name	Description
DESCRIPTION	VARCHAR2(2000)	Yes	DESCRIPTIO	The description associated with the OTC Trail Character Name. The character of the trail defined by the Ontario Trails Council.
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE
EXPIRY_DATETIME	DATE	No	EXP_DATE	Date/time that the record was expired from use.

OTN_OTC_TRAIL_CHARACTER_LIST Permissible Values

OTC_TRAIL_CHARACTER	DESCRIPTION	EXPIRY_DATETIME
Historic	A single or multi-use trail system, located in either an urban or rural area, that has been recognized for its historical, cultural or heritage character related to human settlement.	Not applicable
Natural	A single or multi-use rural trail system, located within a natural environment.	Not applicable
Rail Trail	A single or multi-use trail system composed of abandoned railway rights-of-way converted to trails.	Not applicable
Scenic	A single or multi-use trail system within a rural setting having notable and scenic significance in a natural environment removed from a large population that has been recognized by independent third parties.	Not applicable
Urban	A single or multi-use trail system within an urban or municipal setting primarily serving the residents of a community.	Not applicable
Water	A canoeing or kayak trail system, with or without portaging, located in either an urban or rural area.	Not applicable

OTN_PERMITTED_USE_LIST

List of valid OTN Permitted Uses.

Column Name	Column Type	Mandatory	Short Name	Description
PERMITTED_USE	VARCHAR2(100)	Yes	PERM_USE	Use permitted on the trail segment. Examples include skiing, hiking etc.
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE
EXPIRY_DATETIME	DATE	No	EXP_DATE	Date/time that the record was expired from use.

OTN_PERMITTED_USE_LIST Permissible Values

PERMITTED_USE	EXPIRY DATETIME
All-terrain vehicles (ATV)	Not applicable
Canoeing or paddling	Not applicable
Cycling - offroad or mountain	Not applicable
Cycling - road or path	Not applicable
Dog sledding	Not applicable
Equestrian	Not applicable
Hiking and Walking	Not applicable
Kayaking	Not applicable
Nordic and cross country skiing	Not applicable
Offroad motorcycle	Not applicable
Other	Not applicable
Portage	Not applicable

PERMITTED_USE	EXPIRY DATETIME
Running	Not applicable
Snowmobiling	Not applicable
Snowshoeing and backcountry skiing	Not applicable
Snowshoeing	Not applicable

OTN_STRUCTURE_LIST

Lookup table listing trail structure information for a trail segment.

Column Name	Column Type	Mandatory	Short Name	Description
STRUCTURE	VARCHAR2(50)	Yes	STRUCTURE	The name of the trail structure. Trail structures normally respond to user safety and environmental protection issues-not user convenience issues. In this context, almost all structures refer to passing through or across wet areas or open water such as bridges, puncheon, or boardwalks. Steps and stiles apply to passage of topographical or human-caused barriers.
DESCRIPTION	VARCHAR2(2000)	Yes	DESCRIPTIO	The description of the trail structure name. Trail structures normally respond to user safety and environmental protection issues-not user convenience issues. In this context, almost all structures refer to passing through or across wet areas or open water such as bridges, puncheon, or boardwalks. Steps and stiles apply to passage of topographical or human-caused barriers.

EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE
EXPIRY_DATETIME	DATE	No	EXP_DATE	Date/time that the record was expired from use.

OTN_STRUCTURE_LIST Permissible Values

STRUCTURE	DESCRIPTION	EXPIRY DATETIME
Boardwalk	Boardwalks are employed to cross areas that have deeper water than can be crossed by puncheon. Typical locations are where the trail has to cross a cattail area, deep marsh, or other water body that has little fluctuation in its level and flow. The distinction between a boardwalk and puncheon is that the surface of a boardwalk is constructed of boards that are perpendicular to the direction of the trail, and the entire structure is supported by posts driven or anchored into the bottom of the wetland, similar to a dock. Boardwalks do not rest on sill logs. Another distinction is that puncheon is normally less than a foot above the surrounding wetland, while a boardwalk can be 2 to 3 feet above the water; like an elongated dock. Boardwalks are a major, long-term investment, and they often cross moderately deep water, with standards as an accommodation to safety and provision of wheelchair passage.	Not applicable
Bridge	Bridges are structures for crossing permanent and seasonal streams, dry ravines or gorges, and other obstacles in a safe, environmentally sensitive manner. Common sense should be used when defining a bridge. A bridge should not be confused with puncheon or boardwalks.	Not applicable
Causeway	The trail tread through poorly drained areas may be elevated by using a causeway. This permanently hardens the tread to ensure a smooth walking surface. It is a technique that is useful when soils are poorly drained but do not have standing water as found in a wetland. A typical causeway is built with the width of the trail tread defined by parallel rows of rocks or logs. The defining rows also serve to retain the fill consisting of rock gravel, earth or a mixture of these materials. Medium- sized stones at the base allow water to pass under the causeway. . A ditch may be dug parallel to and on both sides of the causeway to improve drainage. This variation is often called a turnpike.	Not applicable

STRUCTURE	DESCRIPTION	EXPIRY DATETIME
Corduroy	Corduroy construction is basically a primitive type of puncheon. It consists of laying native logs perpendicular to the trail to harden it through areas of unstable or saturated soil. If left exposed, corduroy provides an uneven, slippery footing that is uncomfortable for the hiker.	Not applicable
Culvert	Culverts are used to pass water under the trail, as an alternative to a small bridge and can be used to accommodate water flow from either spring runoff or small permanent streams. They also can be used in flat areas to provide equalizing, cross-drainage under causeway or turnpike sections, and reduce the damming effect. Culverts can be constructed of rock, logs, corrugated metal, corrugated plastic, or other suitable material.	Not applicable
Gates	Pastures and other agricultural fields often occur on private lands and are separated by fences and gates or stiles are used to allow access. A gate or stile can serve as a barrier to unauthorized use by horses, bicycles, and/or ORVs.	Not applicable
Puncheon	Puncheon is an effective way to cross some types of bogs, shallow marshes, and wooded wetlands. It uses sawed, lumber or native logs to elevate the trail tread above wet areas that are not feasible to drain. It provides a hardened surface that lasts for many years depending on the material used. The walking surface is parallel to the direction of the trail, and the support structures (sills) rest directly on the ground.	Not applicable
Stepping Stones	Stepping stones are placed to harden the trail tread across short wet areas or mud-holes. They consist of large, flat stones that are firmly set so that they do not rock; which may otherwise cause hikers to lose their balance. Stepping stones pose a barrier to accessibility and can become slick with moss and water; a falling hazard for all persons.	Not applicable
Steps and Perrons	Steps and perrons (elongated steps-more like a series of connected platforms) may be required on trails due to topographical barriers-such as where an escarpment separates two moderately sloped grades.	Not applicable

OTN_SURFACE_DETAIL_LIST

List of valid OTN SURFACE_DETAILS.

Column Name	Column Type	Mandatory	Short Name	Description
SURFACE_DETAIL	VARCHAR2(25)	Yes	SURF_DET	Specific description of the trail surface. The type of trail surface has a great amount of influence on the degree of access for all user groups.
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE
EXPIRY_DATETIME	DATE	No	EXP_DATE	Date/time that the record was expired from use.

OTN_SURFACE_DETAIL_LIST Permissible Values

SURFACE DETAIL	EXPIRY DATETIME
Aggregate or Gravel	Not applicable
Asphalt	Not applicable
Bedrock	Not applicable
Bladed	Not applicable
Boardwalk	Not applicable
Brick or Paver Stone	Not applicable
Concrete	Not applicable
Corduroy	Not applicable
Crushed Stone (fines)	Not applicable
Grass	Not applicable
Gravel	Not applicable
Other	Not applicable
Rock or Boulder	Not applicable
Sand	Not applicable

SURFACE DETAIL	EXPIRY DATETIME
Skree	Not applicable
Soil	Not applicable
Vegetation - mown	Not applicable
Vegetation - natural	Not applicable
Water (Open Water)	Not applicable
Wetland	Not applicable
Wood - Chip or Mulch	Not applicable
Wood - Decking	Not applicable

OTN_TRAIL_GROUPING_LIST

Look up table listing high level trail grouping for a trailhead.

Column Name	Column Type	Mandatory	Short Name	Description
TRAIL_GROUPING	VARCHAR2(75)	Yes	GROUPING	Individual trails or organizations associated with a larger trail organization or association (ex. Bruce Trail, Voyageur Trail, Algonquin Park).
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE
EXPIRY_DATETIME	DATE	No	EXP_DATE	Date/time that the record was expired from use.

OTN_TRAIL_GROUPING_LIST Permissible Values

TRAIL_GROUPING	EXPIRY DATETIME
Aaron Provincial Park	Not applicable
Abitibi-De-Troyes Provincial Park	Not applicable
Adam Creek Provincial Nature Reserve	Not applicable
Agassiz Peatlands Provincial Park	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Albany River Provincial Park	Not applicable
Albert Lake Mesa Provincial Nature Reserve	Not applicable
Alexander Lake Forest Provincial Park	Not applicable
Alexander Stewart Provincial Park	Not applicable
Algoma Headwaters Provincial Park	Not applicable
Algonquin Provincial Park	Not applicable
Amable du Fond Provincial Park	Not applicable
Arrow Lake Provincial Park	Not applicable
Arrowhead Peninsula Provincial Nature Reserve	Not applicable
Arrowhead Provincial Park	Not applicable
Aubinadong River Provincial Park	Not applicable
Aubinadong-Nushatogaini Rivers Provincial Park	Not applicable
Aubrey Falls Provincial Park	Not applicable
Ausable Bayfield Conservation Authority	Not applicable
Awenda Provincial Park	Not applicable
Balsam Lake Provincial Park	Not applicable
Barron River Provincial Park	Not applicable
Bass Lake Provincial Park	Not applicable
Batchawana Provincial Park	Not applicable
Batchawana River Provincial Park	Not applicable
Bayview Escarpment Provincial Nature Reserve	Not applicable
Beattie Pinery Provincial Park	Not applicable
Bell Bay Provincial Park	Not applicable
Big East River Provincial Park	Not applicable
Bigwind Lake Provincial Park	Not applicable
Biscotasi Lake Provincial Park	Not applicable
Bissett Creek Provincial Par	Not applicable
Black Creek Provincial Park	Not applicable
Black Sturgeon River Provincial Park	Not applicable
Blind River Provincial Park	Not applicable
Blue Jay Creek Provincial Park	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Blue Lake Provincial Park	Not applicable
Bon Echo Provincial Park	Not applicable
Bonheur River Kame Provincial Nature Reserve	Not applicable
Bonnechere Provincial Park	Not applicable
Bonnechere River Provincial Park	Not applicable
Boyne Valley Provincial Park	Not applicable
Brightsand River Provincial Park	Not applicable
Bronte Creek Provincial Park	Not applicable
Bruce Peninsula National Park	Not applicable
Bruce Trail	Not applicable
Burnt Lands Provincial Park	Not applicable
Butler Lake Provincial Nature Reserve	Not applicable
Cabot Head Provincial Nature Reserve	Not applicable
Caliper Lake Provincial Park	Not applicable
Carson Lake Provincial Park	Not applicable
Castle Creek Provincial Nature Reserve	Not applicable
Cataraqui Region Conservation Authority	Not applicable
Catfish Creek Conservation Authority	Not applicable
Cavern Lake Provincial Nature Reserve	Not applicable
Centennial Lake Provincial Nature Reserve	Not applicable
Central Lake Ontario Conservation Authority	Not applicable
Chapleau-Nemegosenda River Provincial Park	Not applicable
Charleston Lake Provincial Park	Not applicable
Chiniguchi Waterway Provincial Park	Not applicable
Chutes Provincial Park	Not applicable
Conservation Halton	Not applicable
Coral Rapids Provincial Nature Reserve	Not applicable
Craig's Pit Provincial Nature Reserve	Not applicable
Craigeith Provincial Park	Not applicable
Cranberry Lake Provincial Nature Reserve	Not applicable
Credit Valley Conservation	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Crow Valley Conservation Authority	Not applicable
Daisy Lake Uplands Provincial Park	Not applicable
Dana-Jowsey Lakes Provincial Park	Not applicable
Darlington Provincial Park	Not applicable
Devil's Glen Provincial Park	Not applicable
Devon Road Mesa Provincial Nature Reserve	Not applicable
Divide Ridge Provincial Park	Not applicable
Dividing Lake Provincial Park	Not applicable
Driftwood Provincial Park	Not applicable
Duclos Point Provincial Nature Reserve	Not applicable
Duncan Escarpment Provincial Nature Reserve	Not applicable
Eagle-Dogtooth Provincial Park	Not applicable
Earl Rowe Provincial Park	Not applicable
East English River Provincial Park	Not applicable
East Sister Island Provincial Nature Reserve	Not applicable
Edward Island Provincial Nature Reserve	Not applicable
Egan Chutes Provincial Nature Reserve	Not applicable
Emily Provincial Park	Not applicable
Englehart River Fine Sand Plain and Waterway Provincial Park	Not applicable
Esker Lakes Provincial Park	Not applicable
Essex Region Conservation Authority	Not applicable
Fairbank Provincial Park	Not applicable
Fawn River Provincial Park	Not applicable
Ferris Provincial Park	Not applicable
Finlayson Point Provincial Park	Not applicable
Fish Point Provincial Nature Reserve	Not applicable
Fitzroy Provincial Park	Not applicable
Five Mile Lake Provincial Park	Not applicable
Forks of the Credit Provincial Park	Not applicable
Foy Property Provincial Park	Not applicable
Fraleigh Lake Provincial Nature Reserve	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Frederick House Lake Provincial Nature Reserve	Not applicable
French River Provincial Park	Not applicable
Frontenac Provincial Park	Not applicable
Fushimi Lake Provincial Park	Not applicable
Ganaraska Region Conservation Authority	Not applicable
Ganaraska Trail	Not applicable
Gem Lake Maple Bedrock Provincial Park	Not applicable
Georgian Bay Islands National Park	Not applicable
Gibson River Provincial Park	Not applicable
Goose Island Provincial Park	Not applicable
Goulais River Provincial Par	Not applicable
Grand River Conservation Authority	Not applicable
Grant's Creek Provincial Park	Not applicable
Grassy River-Mond Lake Lowlands and Ferris Lake Uplands Provincial Park	Not applicable
Gravel River Provincial Nature Reserve	Not applicable
Greenwater Provincial Park	Not applicable
Grey Sauble Conservation Authority	Not applicable
Groundhog River Provincial Park	Not applicable
Grundy Lake Provincial Park	Not applicable
Gull River Provincial Park	Not applicable
Halfway Lake Provincial Park	Not applicable
Hamilton Conservation Authority	Not applicable
Hardy Lake Provincial Park	Not applicable
Hicks-Oke Bog Provincial Nature Reserve	Not applicable
Hockley Valley Provincial Nature Reserve	Not applicable
Holland Landing Prairie Provincial Nature Reserve	Not applicable
Hope Bay Forest Provincial Nature Reserve	Not applicable
Indian Point Provincial Park	Not applicable
Inverhuron Provincial Park	Not applicable
Ipperwash Provincial Park	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Ira Lake Provincial Nature Reserve	Not applicable
Ivanhoe Lake Provincial Park	Not applicable
J. Albert Bauer Provincial Park	Not applicable
James N. Allan Provincial Park	Not applicable
Jocko Rivers Provincial Park	Not applicable
John E. Pearce Provincial Park	Not applicable
Johnston Hrb./Pine Tree Pt. Provincial Park	Not applicable
Kabitotikwia River Provincial Nature Reserve	Not applicable
Kaiashk Provincial Nature Reserve	Not applicable
Kakabeka Falls Provincial Park	Not applicable
Kama Hills Provincial Nature Reserve	Not applicable
Kap-Kig-Iwan Provincial Park	Not applicable
Kashabowie Provincial Park	Not applicable
Kawartha Conservation Authority	Not applicable
Kawartha Highlands Signature Site Park	Not applicable
Kenny Forest Provincial Park	Not applicable
Kesagami Provincial Park	Not applicable
Kettle Creek Conservation Authority	Not applicable
Kettle Lakes Provincial Park	Not applicable
Killarney Lakelands & Headwaters Provincial Park	Not applicable
Killarney Provincial Park	Not applicable
Killbear Provincial Park	Not applicable
Komoka Provincial Park	Not applicable
Kopka River Provincial Park	Not applicable
La Cloche Provincial Park	Not applicable
La Motte Lake Provincial Park	Not applicable
La Verendrye Provincial Park	Not applicable
Lady Evelyn-Smoothwater Provincial Park	Not applicable
Lake Abitibi Islands Provincial Park	Not applicable
Lake Nipigon Provincial Park	Not applicable
Lake Simcoe Region Conservation Authority	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Lake St. Peter Provincial Park	Not applicable
Lake Superior Provincial Park	Not applicable
Lake of the Woods Provincial Park	Not applicable
Lake on the Mountain Provincial Picnic Grounds	Not applicable
Lakehead Region Conservation Authority	Not applicable
Larder River Waterway Provincial Park	Not applicable
Le Pate Provincial Nature Reserve	Not applicable
Lighthouse Point Provincial Nature Reserve	Not applicable
Limestone Islands Provincial Nature Reserve	Not applicable
Lion's Head Provincial Nature Reserve	Not applicable
Little Abitibi Provincial Park	Not applicable
Little Cove Provincial Nature Reserve	Not applicable
Little Current River Provincial Park	Not applicable
Little Greenwater Lake Provincial Nature Reserve	Not applicable
Little White River Provincial Park	Not applicable
Livingstone Point Provincial Nature Reserve	Not applicable
Lola Lake Provincial Nature Reserve	Not applicable
Long Point Provincial Park	Not applicable
Long Point Region Conservation Authority	Not applicable
Lower Madawaska River Provincial Park	Not applicable
Lower Thames Valley Conservation Authority	Not applicable
Lower Trent Conservation	Not applicable
MacGregor Point Provincial Park	Not applicable
MacLeod Provincial Park	Not applicable
MacMurchy Township End Moraine Provincial Park	Not applicable
Magnetawan River Provincial Park	Not applicable
Maitland Valley Conservation Authority	Not applicable
Makobe-Grays River Provincial Park	Not applicable
Manitou Islands Provincial Nature Reserve	Not applicable
Mara Provincial Park	Not applicable
Mark S. Burnham Provincial Park	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Marten River Provincial Park	Not applicable
Mashkinonje Provincial Park	Not applicable
Matawatchan Provincial Park	Not applicable
Matawin River Provincial Park	Not applicable
Matinenda Provincial Park	Not applicable
Mattagami Region Conservation Authority	Not applicable
Mattagami River Beach & Aeolian Deposit Provincial Park	Not applicable
Mattawa River Provincial Park	Not applicable
Maynard Lake Provincial Nature Reserve	Not applicable
McRae Point Provincial Park	Not applicable
Menzel Centennial Provincial Nature Reserve	Not applicable
Michipicoten Island Provincial Park	Not applicable
Michipicoten Provincial Park	Not applicable
Mikisew Provincial Park	Not applicable
Minnitaki Kames Provincial Nature Reserve	Not applicable
Misery Bay Provincial Nature Reserve	Not applicable
Missinaibi Provincial Park	Not applicable
Mississagi Delta Provincial Nature Reserve	Not applicable
Mississagi Provincial Park	Not applicable
Mississagi River Provincial Park	Not applicable
Mississippi Valley Conservation Authority	Not applicable
Mono Cliffs Provincial Park	Not applicable
Montreal River Provincial Park	Not applicable
Morris Tract Provincial Nature Reserve	Not applicable
Murphys Point Provincial Park	Not applicable
Nagagami Lake Provincial Nature Reserve	Not applicable
Nagamisis Provincial Park	Not applicable
Nakina Moraine Provincial Park	Not applicable
Neys Provincial Park	Not applicable
Niagara Peninsula Conservation Authority	Not applicable
Nickel District Conservation Authority	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Nimoosh Provincial Park	Not applicable
Noganosh Lake Provincial Park	Not applicable
Noisy River Provincial Nature Reserve	Not applicable
North Bay-Mattawa Conservation Authority	Not applicable
North Beach Provincial Park	Not applicable
North Channel Inshore Provincial Park	Not applicable
North Driftwood River Provincial Nature Reserve	Not applicable
Nottawasaga Lookout Provincial Nature Reserve	Not applicable
Nottawasaga Valley Conservation Authority	Not applicable
O'Donnell Point Provincial Nature Reserve	Not applicable
Oak Ridges Trail	Not applicable
Oastler Lake Provincial Park	Not applicable
Obabika River Provincial Park	Not applicable
Obatanga Provincial Park	Not applicable
Obonga-Ottertooth Provincial Park	Not applicable
Ogoki River Provincial Park	Not applicable
Ojibway Prairie Provincial Nature Reserve	Not applicable
Ojibway Provincial Park	Not applicable
Opasquia Provincial Park	Not applicable
Opeongo River Provincial Park	Not applicable
Otonabee Conservation Authority	Not applicable
Otoskwin-Attawapiskat River Provincial Park	Not applicable
Ottawa River Provincial Park	Not applicable
Ouimet Canyon Provincial Park	Not applicable
Oxtongue River-Ragged Falls Provincial Park	Not applicable
Pakwash Provincial Park	Not applicable
Pan Lake Fen Provincial Park	Not applicable
Pancake Bay Provincial Park	Not applicable
Pantagrueel Creek Provincial Nature Reserve	Not applicable
Petawawa Terrace Provincial Park	Not applicable
Peter's Woods Provincial Nature Reserve	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Petroglyphs Provincial Park	Not applicable
Pichogen River Mixed Forest Provincial Park	Not applicable
Pigeon River Provincial Park	Not applicable
Pipestone River Provincial Park	Not applicable
Point Farms Provincial Park	Not applicable
Point Pelee National Park	Not applicable
Pokei Lake/ White River Wetlands Provincial Park	Not applicable
Polar Bear Provincial Park	Not applicable
Porphyry Island Provincial Park	Not applicable
Port Bruce Provincial Park	Not applicable
Port Burwell Provincial Park	Not applicable
Potholes Provincial Nature Reserve	Not applicable
Prairie River Mouth Provincial Nature Reserve	Not applicable
Presqu'ile Provincial Park	Not applicable
Pretty River Valley Provincial Park	Not applicable
Puff Island Provincial Nature Reserve	Not applicable
Pukaskwa National Park	Not applicable
Pukaskwa River Provincial Park	Not applicable
Pushkin Hills Provincial Nature Reserve	Not applicable
Puzzle Lake Provincial Park	Not applicable
Quackenbush Provincial Park	Not applicable
Queen Elizabeth II Wildlands Provincial Park	Not applicable
Quetico Provincial Park	Not applicable
Quinte Conservation	Not applicable
Rainbow Falls Provincial Park	Not applicable
Raisin Region Conservation Authority	Not applicable
Red Sucker Point Provincial Nature Reserve	Not applicable
Rene Brunelle Provincial Park	Not applicable
Restoule Provincial Park	Not applicable
Rideau River Provincial Park	Not applicable
River Aux Sables Provincial Park	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Rock Point Provincial Park	Not applicable
Rondeau Provincial Park	Not applicable
Round Lake Provincial Nature Reserve	Not applicable
Ruby Lake Provincial Park	Not applicable
Rushbrook Provincial Park	Not applicable
Rushing River Provincial Park	Not applicable
Sable Islands Nature Reserve	Not applicable
Samuel de Champlain Provincial Park	Not applicable
Sandbanks Provincial Park	Not applicable
Sandbar Lake Provincial Park	Not applicable
Sandpoint Island Provincial Park	Not applicable
Sandy Islands Provincial Park	Not applicable
Sauble Falls Provincial Park	Not applicable
Saugeen Conservation Authority	Not applicable
Sault Ste Marie Region Conservation Authority	Not applicable
Schreiber Channel Provincial Nature Reserve	Not applicable
Sedgman Lake Provincial Nature Reserve	Not applicable
Selkirk Provincial Park	Not applicable
Serpent Mounds Provincial Park	Not applicable
Severn River Provincial Park	Not applicable
Sextant Rapids Provincial Nature Reserve	Not applicable
Shallow River Provincial Nature Reserve	Not applicable
Sharbot Lake Provincial Park	Not applicable
Shesheeb Bay Provincial Nature Reserve	Not applicable
Short Hills Provincial Park	Not applicable
Sibbald Point Provincial Park	Not applicable
Silent Lake Provincial Park	Not applicable
Silver Falls Provincial Park	Not applicable
Silver Lake Provincial Park	Not applicable
Sioux Narrows Provincial Park	Not applicable
Six Mile Lake Provincial Park	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Slate Islands Provincial Park	Not applicable
Sleeping Giant Provincial Park	Not applicable
Smokey Head/White Bluff Provincial Nature Reserve	Not applicable
Solace Provincial Park	Not applicable
South Bay Provincial Park	Not applicable
South Nation Conservation Authority	Not applicable
Spanish River Provincial Park	Not applicable
Springwater Provincial Park	Not applicable
Spruce Islands Provincial Park	Not applicable
St. Clair Region Conservation Authority	Not applicable
St. Lawrence Islands National Park	Not applicable
St. Raphael Lake Provincial Park	Not applicable
Steel River Provincial Park	Not applicable
Stoco Fen Provincial Nature Reserve	Not applicable
Sturgeon Bay Provincial Park	Not applicable
Sturgeon River Provincial Park	Not applicable
Temagami River Provincial Park	Not applicable
Thackeray Provincial Nature Reserve	Not applicable
The Massasauga Provincial Park	Not applicable
The Pinery Provincial Park	Not applicable
The Shoals Provincial Park	Not applicable
Thompson Island Provincial Nature Reserve	Not applicable
Tide Lake Provincial Nature Reserve	Not applicable
Tidewater Provincial Park	Not applicable
Timber Island Provincial Nature Reserve	Not applicable
Toronto and Region Conservation Authority	Not applicable
Trillium Woods Provincial Park	Not applicable
Trout Lake Provincial Nature Reserve	Not applicable
Turkey Point Provincial Park	Not applicable
Turtle River-White Otter Lake Provincial Park	Not applicable
Upper Madawaska River Provincial Park	Not applicable

TRAIL_GROUPING	EXPIRY DATETIME
Upper Thames River Conservation Authority	Not applicable
Voyageur Provincial Park	Not applicable
Voyageur Trail	Not applicable
W.B.J. Greenwood Provincial Park	Not applicable
Wabakimi Provincial Park	Not applicable
Wakami Lake Provincial Park	Not applicable
Wanapitei Provincial Park	Not applicable
Wasaga Beach Provincial Park	Not applicable
Waterfront Trail	Not applicable
Waubauskene Beaches Provincial Park	Not applicable
Wenebgon River Provincial Park	Not applicable
West Bay Provincial Nature Reserve	Not applicable
West English River Provincial Park	Not applicable
West Montreal River Provincial Park	Not applicable
West Sandy Island Provincial Nature Reserve	Not applicable
Westmeath Provincial Park	Not applicable
Wheatley Provincial Park	Not applicable
White Lake Peatlands Provincial Nature Reserve	Not applicable
White Lake Provincial Park	Not applicable
Whitesand Provincial Park	Not applicable
Widdifield Forest Provincial Park	Not applicable
Wildgoose Outwash Deposit Provincial Park	Not applicable
Williams Island Provincial Nature Reserve	Not applicable
Windigo Bay Provincial Nature Reserve	Not applicable
Windigo Point Provincial Nature Reserve	Not applicable
Windy Lake Provincial Park	Not applicable
Winisk River Provincial Park	Not applicable
Winnange Lake Provincial Park	Not applicable
Wolf Island Provincial Park	Not applicable
Woman River Forest Provincial Park	Not applicable
Woodland Caribou Provincial Park	Not applicable

OTN_TRILLIUM_NETWORK_TYPE_LIST

Lookup table for Trillium Trail Network classifications for trails.

Column Name	Column Type	Mandatory	Short Name	Description
TRILLIUM_TRAIL_NETWORK_TYPE	VARCHAR2(25)	Yes	TRILLIUM_T	<p>A classification system assigned by the Trillium Trail Network to trails. The Trillium Trail Network (TTN) represents an opportunity for trails to link together between regions and communities in Ontario. The TTN consists of Ontario Trail Council member trails registering their trail as a network member. Trails will:</p> <ul style="list-style-type: none"> • Be readily accessible to communities along the TTN • Incorporate multi and single use trails • Can have both year-round and single season trails • Include trails of different lengths, topography, uses and locations
DESCRIPTION	VARCHAR2(2000)	Yes	DESCRIPTIO	<p>The description of Trillium Trail Network codes. The Trillium Trail Network represents an opportunity for trails to link together between regions and communities in Ontario. The TTN consists of Ontario Trail Council member trails registering their trail as a network member.</p>
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	<p>Date/time the record was created or last modified in the source database. DEFAULT: SYSDATE</p>
EXPIRY_DATETIME	DATE	No	EXP_DATE	<p>Date/time that the record was expired from use.</p>

OTN_TRILLIUM_NETWORK_TYPE_LIST Permissible Values

TRILLIUM_TRAIL_NETWORK_TYPE	DESCRIPTION	EXPIRY DATETIME
Blue Sector	Will comprise TDMO's developing and/or maintaining water (and land used for portage) trails for travel primarily by canoes, kayaks and other self-powered vehicles. Mandatory fees for use of trails may or may not be charged.	Not applicable
Gold Sector	Will comprise TDMO's developing and/or maintaining land-based trails requiring a mandatory use fee and primarily used for assisted travel by ATV, motorcycle, snowmobile and other forms of off-road vehicles, horseback, dog sled or bicycle.	Not applicable
Green Sector	Will comprise TDMO's developing and/or maintaining land based trails free of mandatory trail use fees to permitted users where motorized uses are not typically permitted.	Not applicable

APPENDIX B: Table Key Dependency and Relationship Index

Keys are used to link or make relationships between tables through one or more columns. A Parent Table is the source of unique key columns used by a Child Table. The main key types are described below.

Primary Key (PK):

A Primary Key (PK) is a column that uniquely identifies each record in a table. There can be more than one PK defined for a table when additional rules for record uniqueness are needed. Primary Keys cannot contain null values.

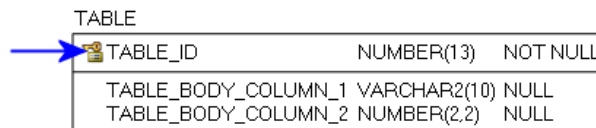


Figure 1: Primary Key example

Foreign Key (FK):

When a Primary Key from a Parent Table appears as a column in the Child Table it is referred to as a Foreign Key (FK). The FK may retain the same name of the Parent Table column, or it may be renamed.

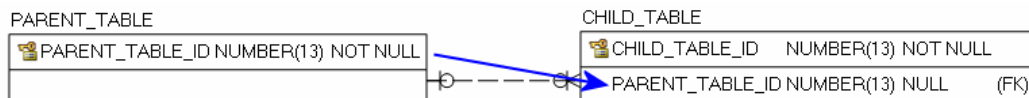


Figure 2: Foreign Key example

Alternate Key (AK):

Alternate Keys (AK) are secondary unique identifiers in a Parent Table. A Child Table can link to a Parent Table AK and use it as a Foreign Key (FK). The FK may retain the same name of the Parent Table column, or it may be renamed. Alternate Keys allow null values.

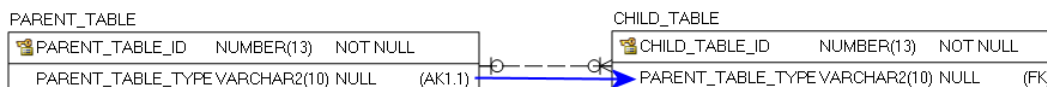


Figure 3: Alternate Key example

There are two relationship type options, identifying and non-identifying, which are described below.

An **Identifying Relationship** occurs when a column from the Parent Table is added to the key section of the Child Table. Though technically a Foreign Key (FK) in the child table, it now forms part of the Primary Key (PK). Identifying Relationships are symbolized with a solid line.

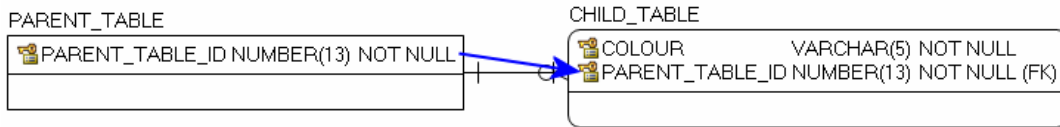


Figure 4: Example of an Identifying Relationship

A **Non-identifying Relationship** occurs when a column from the Parent Table is added to the main body of the Child Table where it is treated as a Foreign Key (FK). Non-identifying Relationships are symbolized with a dashed line.

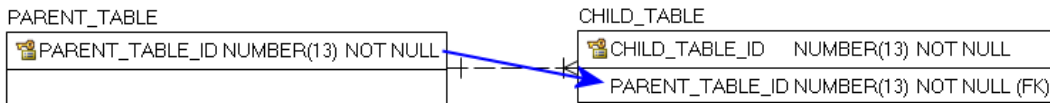


Figure 5: Example of a Non-identifying Relationship

The relationships between tables are set up with cardinality rules describing if the feature record in the Parent Table can relate to zero, one or more records in the associated Child Table and vice versa. These rules are symbolized in the model diagram as follows.

Symbol	Definition
	Zero or one (optional: 1 to 1)
	Zero, one or more (optional: one to many)
	One or more (mandatory: one to many)
	Nulls not allowed (mandatory: 1 to 1)

Figure 6: Model Diagram Relationship Symbology Table

The following section is an index of parent table primary keys identifying, where applicable, associated child table dependencies that have been implemented for the Ontario Trail Network data classes.

Main Business Area Tables

Index of main business area table primary and associated foreign keys.

Note: Relationship type reference is either Identifying (I) or Non-Identifying (NI).

Parent Table: **OTN_TRAILHEAD_FT**

Primary Key(s): **OGF_ID**

Data Type: **NUMBER (13)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_OTC_TRAIL_CHARACTER	OTN_TRAILHEAD_ID	I	Optional: 1 to many	Mandatory: 1 to1
OTN_TRAIL_ACCESS_POINT	OTN_TRAILHEAD_ID	NI	Optional: 1 to 1	Mandatory: 1 to1
OTN_TRAIL_AMENITY	OTN_TRAILHEAD_ID	I	Optional: 1 to many	Mandatory: 1 to1
OTN_TRAIL_OPERATIONAL_SEASON	OTN_TRAILHEAD_ID	I	Optional: 1 to many	Mandatory: 1 to1
OTN_TRAIL_PERMITTED_USE	OTN_TRAILHEAD_ID	I	Optional: 1 to many	Mandatory: 1 to1
OTN_TRAILHEAD_AND_TRAIL_SEG	OTN_TRAILHEAD_ID	I	Optional: 1 to many	Mandatory: 1 to1

Parent Table: **OTN_TRAIL_SEGMENT_FT**

Primary Key(s): **OGF_ID**

Data Type: **NUMBER (13)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAILHEAD_AND_TRAIL_SEG	OTN_TRAILHEAD_ID	I	Optional: 1 to many	Mandatory: 1 to1

Lookup Table Indexes

Where a lookup table primary key (PK) is used as a foreign key (FK) in other main business area tables in order to control permissible values.

Note: Relationship type reference is either Identifying (I) or Non-Identifying (NI).

Parent Table: **LOCATION_ACCURACY_LIST**

Primary Key(s): **LOCATION_ACCURACY**

Data Type: **VARCHAR2 (25)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAILHEAD_FT	LOCATION_ACCURACY	NI	Optional: 1 to many	Mandatory: 1 to1
OTN_TRAIL_SEGMENT_FT	LOCATION_ACCURACY	NI	Optional: 1 to many	Mandatory: 1 to1

Parent Table: **OTN_PERMITTED_USE_LIST**

Primary Key(s): **PERMITTED_USE**

Data Type: **VARCHAR2 (100)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAIL_PERMITTED_USE	PERMITTED_USE	I	Optional: 1 to many	Mandatory: 1 to1

Parent Table: **OTN_OTC_TRAIL_CHARACTER_LIST**

Primary Key(s): **PERMITTED_USE**

Data Type: **VARCHAR2 (15)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAIL_CHARACTER	OTC_TRAIL_CHARACTER	I	Optional: 1 to many	Mandatory: 1 to1

Parent Table: **OTN_AMENITY_LIST**

Primary Key(s): **AMENITY**

Data Type: **VARCHAR2 (50)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAIL_AMENITY	AMENITY	I	Optional: 1 to many	Mandatory: 1 to1

Parent Table: **OTN_TRAIL_GROUPING_LIST**

Primary Key(s): **TRAIL_GROUPING**

Data Type: **VARCHAR2 (75)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAILHEAD_FT	TRAIL_GROUPING	NI	Optional: 1 to many	Optional: 1 to1

Parent Table: **OTN_ACTIVITY_LIST**

Primary Key(s): **ACTIVITY**

Data Type: **VARCHAR2 (25)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAILHEAD_FT	ACTIVITY	NI	Optional: 1 to many	Mandatory: 1 to1

Parent Table: **OTN_TRILLIUM_NETWORK_TYPE_LIST**

Primary Key(s): **TRILLIUM_TRAIL_NETWORK_TYPE**

Data Type: **VARCHAR2 (25)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAILHEAD_FT	TRILLIUM_TRAIL_NETWORK_T YPE	NI	Optional: 1 to many	Optional: 1 to1

Parent Table: **OTN_OFSC_TRAIL_DESIG_LIST**

Primary Key(s): **OFSC_TRAIL_DESIGNATION**

Data Type: **VARCHAR2 (10)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAILHEAD_FT	OFSC_TRAIL_DESIGNATION	NI	Optional: 1 to many	Optional: 1 to1

Parent Table: **OTN_ORCKA_SWIFTWATER_LIST**

Primary Key(s): **ORCKA_SWIFTWATER_CLASS**

Data Type: **VARCHAR2 (15)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAILHEAD_FT	ORCKA_SWIFTWATER_CLASS	NI	Optional: 1 to many	Optional: 1 to1

Parent Table: **OTN_OTC_TRAIL_CHALLENGE_LIST**

Primary Key(s): **OTC_TRAIL_CHALLENGE**

Data Type: **VARCHAR2 (25)**

Child Table	Migrated Foreign Key	Rel. Type	Parent to Child Relationship	Child to Parent Relationship
OTN_TRAILHEAD_FT	OTC_TRAIL_CHALLENGE	NI	Optional: 1 to many	Optional: 1 to1

APPENDIX C: Frequently Asked Questions

Why don't I see the trail name on the OTN Trail Segment?

Trail names are only attached to the OTN Trailhead. You will need to download the OTN Trailhead in addition to OTN Trail Segment for trail name data.

How do I see trail names and trail segments in my map?

Three different methods are listed which will add or display trail name. The steps below presume the use of Esri's ArcMap 10.1.

1. View information using Related Tables, included in download of Trail Segment and Trailhead.
 - 1.1. Open an ArcMap document and add the OTN Trail Segment and OTN Trailhead classes.
 - 1.2. Start an Edit session in order to use the Attribute Window (Turn on Editor toolbar: Customize → Toolbars → Editor).
 - 1.3. Click the Attribute Window icon
 - 1.4. Select a trailhead or trail segment using the Edit Tool or Select Features to view information. Selecting trailhead to view related segments involves fewer clicks to reach the segment data.

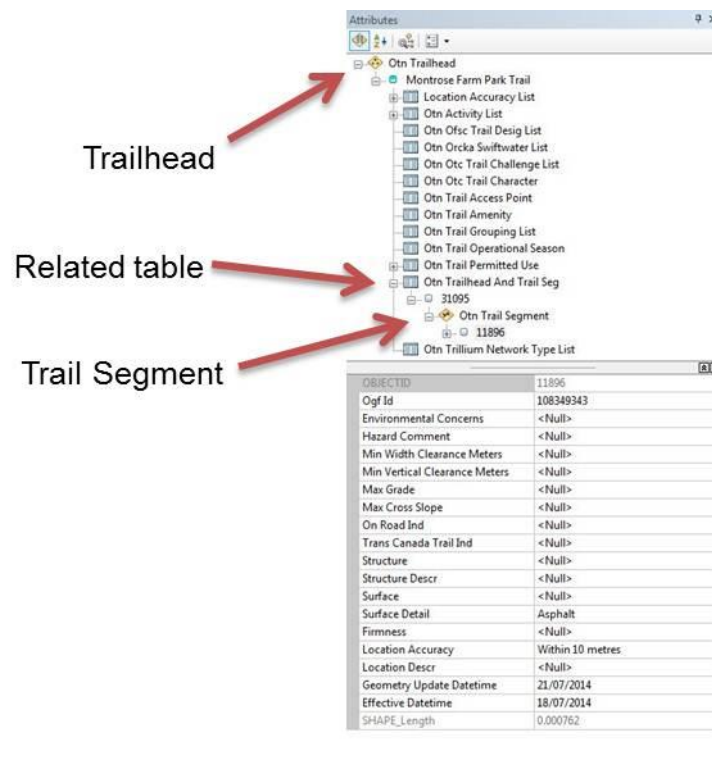


Figure 7: ArcMap's Attributes Window showing Trail information

2. Add both Trailhead and Trail Segment to your map document and label Trail Name from the Trailhead data.
 - 2.1. Open an ArcMap document and add the OTN Trail Segment and OTN Trailhead classes.
 - 2.2. In the Table of Contents (TOC), right-click on OTN Trailhead and choose 'Label Features'. The trail name should appear in the map display.
3. Use ArcToolbox's Join Field to add Trail Name to OTN Trail Segment.
 - 3.1. Navigate in ArcToolbox to Data Management Tools → Joins → Join Field
 - 3.1.1. Input Table: OTN Trail Segment
 - 3.1.2. Input Join Field: OGF_ID
 - 3.1.3. Join Table: OTN_TRAILHEAD_AND_TRAIL_SEG
 - 3.1.4. Output Join Field: OTN_TRAIL_SEGMENT_ID
 - 3.1.5. Join Fields (optional): OTN_TRAILHEAD_ID is required, other fields are optional.
 - 3.1.6. Click OK.
 - 3.2. The ID field is added to OTN Trail Segment.

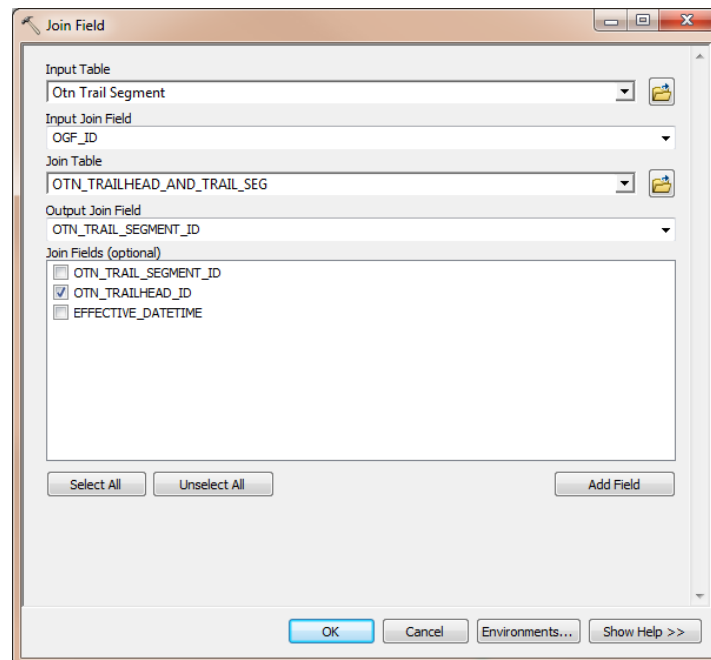


Figure 8: ArcMap's Join Field tool, adding Trailhead ID to Trail Segment

4. Open Join Field again.
 - 4.1. Input Table: OTN Trail Segment
 - 4.2. Input Join Field: OTN_TRAILHEAD_ID
 - 4.3. Join Table: OTN Trailhead
 - 4.4. Output Join Field: OGF_ID
 - 4.5. Join Fields (optional): TRAIL_NAME (and / or other fields, depending on need)
 - 4.6. Click OK.
5. Trail Name is now attached to OTN Trail Segment.

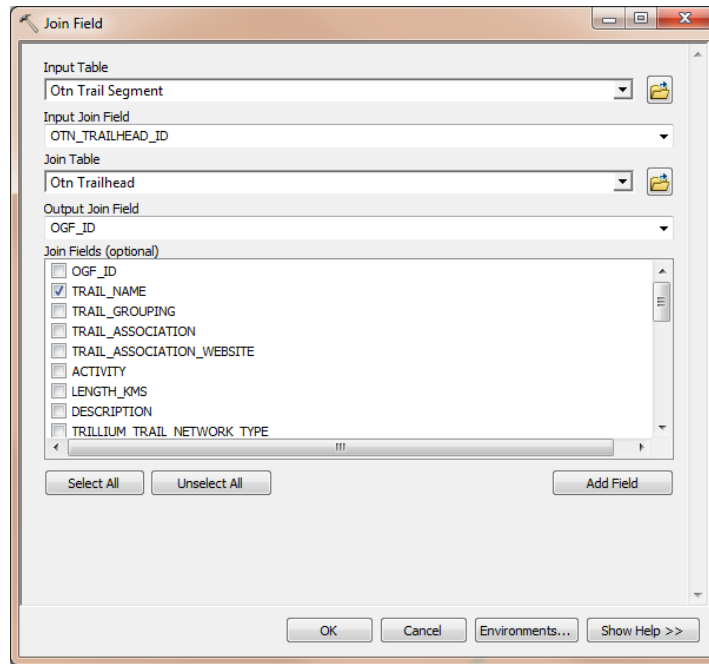


Figure 9: ArcMap's Join Field tool, adding Trail Name to Trail Segment

Why are there no trail segments associated with a specific trailhead?

Every trail will have a trailhead, but trail segment information may not be available for all trailheads.

I want to provide information to the OTN.

To provide trail information contact [LIO](http://www.ontario.ca/environment-and-energy/land-information-ontario) (<http://www.ontario.ca/environment-and-energy/land-information-ontario>) or email your questions or suggestions to lio@ontario.ca.

Is there a place I can see the trail data?

The MNRF has a web map application that you can use to make a topographic map of any area of Ontario that interests you. Trail information is updated annually. For more information visit the [Make a Topographic Map application](http://www.ontario.ca/environment-and-energy/topographic-maps) page (<http://www.ontario.ca/environment-and-energy/topographic-maps>).

