



Land Information Ontario

NRVIS/OLIW Data Management Model For Land Use Plan Area, MNR (V.1) Fact Sheet Edition

Version 1.0

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Additional Information

For more information about this document, please contact Land Information Ontario at (705) 755-1878 or info-access@webmail.mnr.gov.on.ca.

This document was prepared by:

Refer to the *DMM Users-Guide to the Fact Sheet Edition* for additional details about the context of information collected for a Data Management Model.

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1. Preface

Data modeling involves identifying the things of importance to an organization (entities), the properties of those things (attributes) and how they are related to one another (relationships). This document provides the logical view of the data model. Appendix 1 provides details on understanding data models.

2. Overview

Land Use Plan Area, MNR (LUPLMNR) *version 1*

Includes where particular land use planning initiatives have effect that have been approved or are established for a significant geographic area. Examples for MNR include the Ontario's Living Legacy (OLL) Land Use Strategy, Temagami Land Use Plan Area, Madawaska Highlands Area, District Land Use Guidelines Area (DLUG), OLL Signature Sites (that have land use policy) etc.

This is a NRVIS 3.2 only Data Class.

Abstract Class:

SPMNTUREGION -

Abstract Class Multi-Non-Tessellating-Unconstrained Region User Object. One or many regions - sharing a common object id - form a single object. Regions may be disconnected from each other. Each region is a single polygon. Regions may overlap each other. Gaps, holes, and islands are allowed. This class may be used to model habitat areas if we view all habitat as a single concrete class and if we allow disjoint areas of habitat to be considered a single object. There are no constraints as to which habitat types may overlap each other. E.g.: various habitat areas overlap other habitat areas AND disjoint summer and winter habitat areas are considered as a single object in the inventory.

Custodian: (ESTABLISHED)

Ministry of Natural Resources (MNR), Corporate Management Division (CMD), Policy and Planning Coordination Branch, Land Use and Environmental Planning Section

Geographic Unit Types:

Land Use Plan Area, MNR (2785)

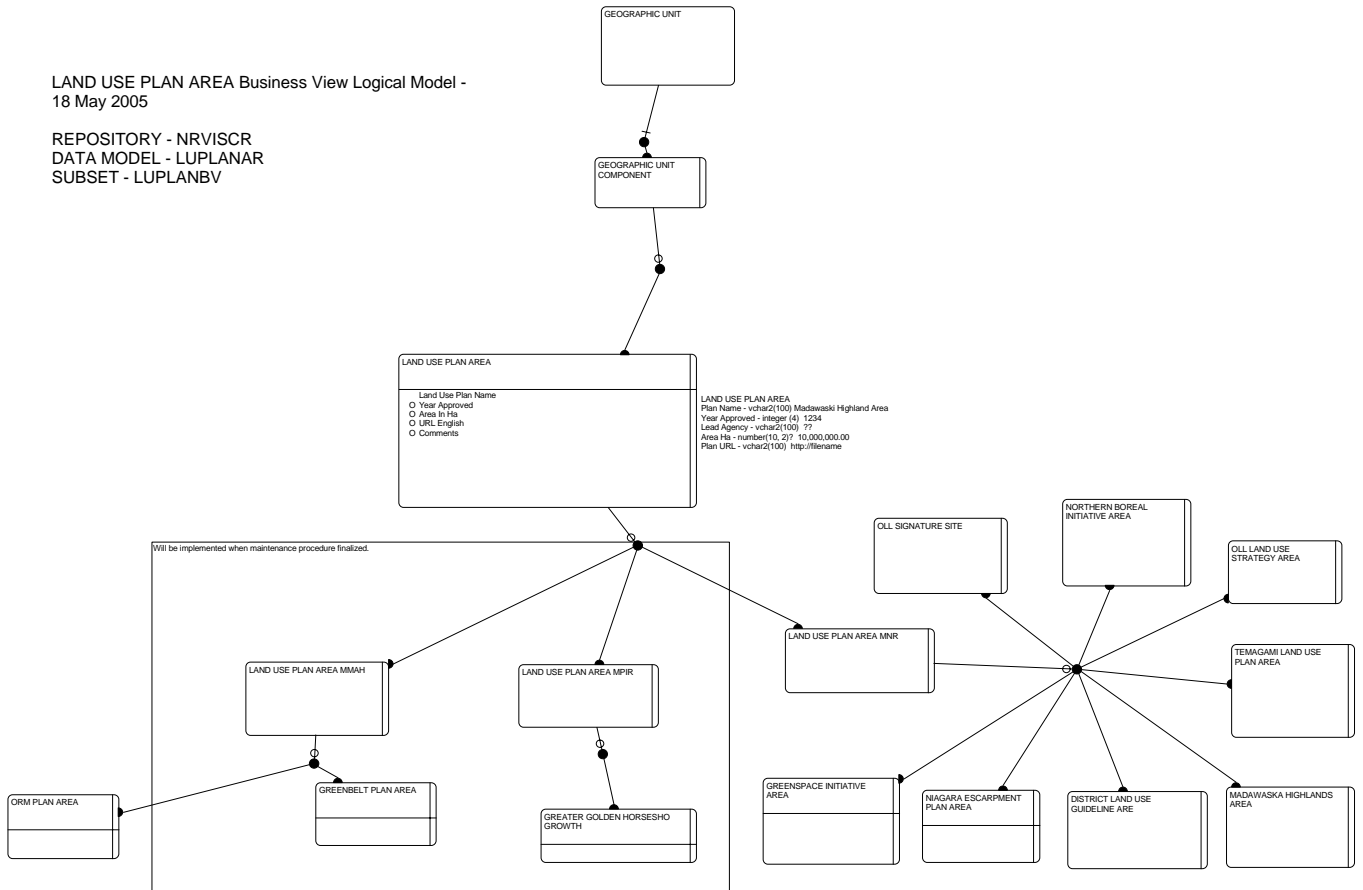
Includes where particular land use planning initiatives have effect that have been approved or are established for a significant geographic area. Examples for MNR include the Ontario's Living Legacy (OLL) Land Use Strategy, Temagami Land Use Plan Area, Madawaska Highlands Area, District Land Use Guidelines Area (DLUG), OLL Signature Sites (that have land use policy) etc.

3. Logical Data Model (Business View)

Refer to the Appendix 1 guide on how to read an Entity Relationship Diagram (ERD).

LAND USE PLAN AREA Business View Logical Model -
18 May 2005

REPOSITORY - NRVISCR
DATA MODEL - LUPLANAR
SUBSET - LUPLANBV



4. Data Dictionary

Refer to the Appendix 2 for guide on how to interpret a data dictionary.

Entity : DISTRICT LAND USE GUIDELINE ARE

Description :

Local MNR District level guidelines directing crown land use and resource management for most of Ontario (last updated in 1983).

Subtype Of LAND USE PLAN AREA MNR

Entity : GEOGRAPHIC UNIT

Description :

A bounded geographic area of a specified type. A thing of interest to the Ministry that has spatial characteristics (i.e. location represented by a point, line or polygon) and requires supporting evidence (GEOGRAPHIC UNIT SOURCE ITEM) and justification (GEOGRAPHIC UNIT JUSTIFICATION) for its creation and major changes.

System Effective Date

Timestamp

Mandatory

Date that the record becomes effective i.e. date that the record becomes a part of the database.

Class : Date

System Expiry Date

Timestamp

Optional

Date the record is no longer part of the database. This is only populated in the history tables otherwise it will be null except for code tables.

Class : Date

System Calculated Metric

Decimal

16

Optional

Size of the area in square meters or length of a line in metres. Will only be applied when the Geographic Unit is a polygon or a line.

Class : Measurement

User Calculated Area

Decimal

16

Optional

Size of the area in square metres. Potentially applicable to points, lines, or polygons.

Class : Quantity

Entity : GEOGRAPHIC UNIT COMPONENT

Description :

A Geographic Unit that may be included in a Geographic Unit Consolidation.

Location Accuracy

Character (variable length string) 2

Mandatory

The degree of conformity or closeness of a measurement within the database to its true value in the world.

Class : Code
Valid values in NRVIS_LOCATION_ACCURACY.

Subtype Of GEOGRAPHIC UNIT

Entity : GREATER GOLDEN HORSESHOE GROWTH

Description :
 A coordinated land use plan for the Growth Plan for the Greater Golden Horseshoe Area in southern Ontario to protect sensitive areas and manage urban settlement growth.

Subtype Of LAND USE PLAN AREA MPIR

Entity : GREENBELT PLAN AREA

Description :
 A land use plan for the Golden Horseshoe area protecting sensitive natural heritage and agricultural lands

Subtype Of LAND USE PLAN AREA MMAH

Entity : GREENSPACE INITIATIVE AREA

Description :
 An MNR initiative to conserve and protect Greenspace in southern Ontario.

Subtype Of LAND USE PLAN AREA MNR

Entity : LAND USE PLAN AREA

Description :
 Represents the geographic extents of land use plans or initiatives that have been approved or established for a significant geographic area (i.e. where they have effect) . Examples include the Ontario's Living Legacy (OLL) Land Use Strategy, Temagami Land Use Plan Area, Madawaska Highlands Area, OLL Signature Sites (that have land use policy) etc

Land Use Plan Name Character (variable length string) 200 Mandatory
 Name of land use plan as given by an official body.

Class : Business Identifier

Year Approved Integer 4 Optional
 Year the land use plan was approved.

Class : Date

Area In Ha Numeric 12 Optional
 The calculated extent of a 2-dimensional surface enclosed within a boundary measured in hectares (ha), rounded to nearest ha.

Class : Quantity

URL English

Character (variable length string) 100 Optional

The address of a computer or a document in English on the Internet that consists of a communications protocol followed by a colon and two slashes (as http://), the identifier of a computer (as www.m-w.com) and usually a path through a directory to a file -- called also universal resource locator.

Class : Description

Comments

Character (variable length string) 2000 Optional

Unstructured description, additional notes, or further explanation.

Class : Text

Subtype Of GEOGRAPHIC UNIT COMPONENT

Entity : LAND USE PLAN AREA MMAH

Description :

Subtype Of LAND USE PLAN AREA

Entity : LAND USE PLAN AREA MNR

Description :

Subtype Of LAND USE PLAN AREA

Entity : LAND USE PLAN AREA MPIR

Description :

Subtype Of LAND USE PLAN AREA

Entity : MADAWASKA HIGHLANDS AREA

Description :

A land use plan for the Madawaska Highlands area of central Ontario.

Subtype Of LAND USE PLAN AREA MNR

Entity : NIAGARA ESCARPMENT PLAN AREA**Description :**

A land use plan for the Niagara Escarpment, stretching from Niagara to the Bruce Peninsula.
- Greenspace Initiative Area

Subtype Of LAND USE PLAN AREA MNR

Entity : NORTHERN BOREAL INITIATIVE AREA**Description :**

An initiative to pursue orderly development north of the area of the undertaking for the Class Environmental Assessment for Timber Management on Crown Lands in Ontario. This work will lead to land use and resource allocation decisions that will provide additional forest resources to existing, or new, industrial facilities and provide new economic opportunities for First Nation communities.

Subtype Of LAND USE PLAN AREA MNR

Entity : OLL LAND USE STRATEGY AREA**Description :**

The OLL Land Use Strategy outlines the intended strategic direction for the management of 39 million hectares of Crown lands and waters in a planning area covering 45 percent of the province in the 'Area of Undertaking'.

Subtype Of LAND USE PLAN AREA MNR

Entity : OLL SIGNATURE SITE**Description :**

Nine parts of the OLL planning area that have been identified as Featured Areas that provide specific examples of the types of features that are being dealt with in the Land Use Strategy, or warrant special strategies.

Subtype Of LAND USE PLAN AREA MNR

Entity : ORM PLAN AREA**Description :**

The Oak Ridges Moraine Conservation Plan Area as described in Section 2 of the Oak Ridges Moraine Conservation Plan 2002. The boundary is based on a number of topographical, geomorphological and geological attributes, including the 245 metre (Above Sea Level) contour along the southern boundary of the Moraine from Town of Richmond Hill to the eastern boundary of the Municipality of Clarington.

Subtype Of LAND USE PLAN AREA MMAH

Entity : TEMAGAMI LAND USE PLAN AREA**Description :**

A land use plan for the Temagami Region of northeastern Ontario.

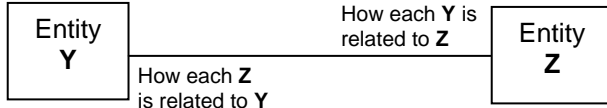
Subtype Of LAND USE PLAN AREA MNR

Appendix 1: Reading an Entity-Relationship Diagram

A modeler can define the data needs of a business using an **entity relationship diagram** (ERD). An ERD is a schematic representation showing entities and their relationship to other entities. An **entity** is a data object and a **relationship** is a model of the association between objects of one or more different entities. In an ERD, entities are rectangles connected to other entities by relationship lines. (official definition excerpt from the *Information Modeling Handbook for the OPS – Ontario Government Management Board Secretariat Corporate Architecture Branch*)

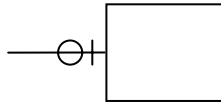
You will encounter the following symbology in an ERD.

General Notation: Text that describes a relationship between entities.

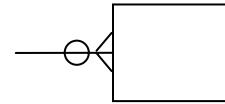


Relationship Cardinality Symbols:

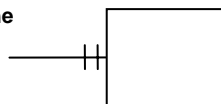
There *may* be **zero or one** occurrence of this entity. This means that the entity is optional.



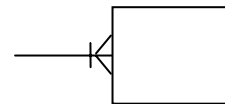
There *may* be **zero or more** occurrences of this entity. The relationship is optional.



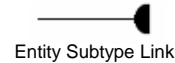
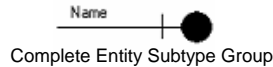
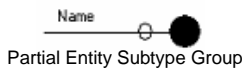
There *must* be **one and only one** occurrence of this entity. This means that the relationship is mandatory.



There *must* be **one or more** occurrences of this entity. The relationship is mandatory.

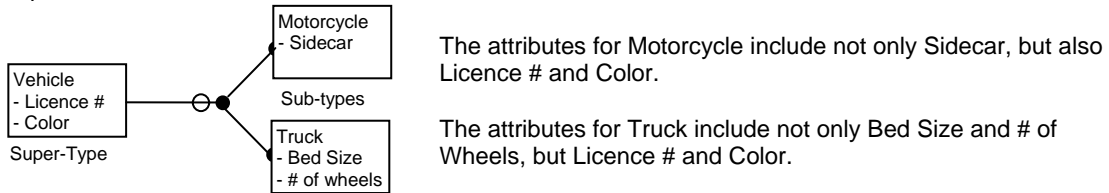


Entity Sub-type Groups: Entity subtype group icons link sub-type entities to the super-type entity. All subtype entities inherit the characteristics of the super-type entity. For example:



Group icons link subtype entities to the super-type entity. All subtype entities inherit the characteristics of the super-type entity. For example:

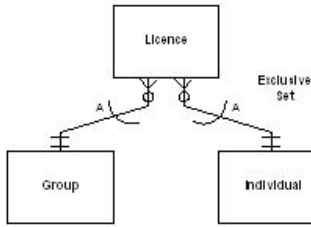
The circle indicates that the definition of subtypes for the super-type Vehicle is only partially complete. A line in this same location would indicate that all possible subtypes have been defined – indicating it as complete.



Types of vehicles that have not be explicitly defined would inherit only the characteristics of the Vehicle entity e.g. Car, ATV.

Exclusive Set:

An Exclusive Set describes a relationship between entities where, at any one time, only one of the relationships can be true. For example:



A Group *may* be the holder of one or more Licences.

An Individual *may* be the holder of one or more Licences.

A Licence *must* be Issued to one and only one Group **or** One and only one Individual.

One licence cannot be issued to both a group and an individual.

Additional Examples:

Interpreted as :

An Instructor *must* be teaching One or More Courses.

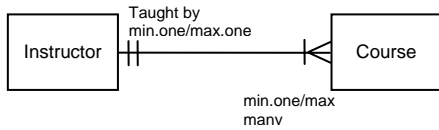
A Course *must* be taught by One and Only One Instructor.

An Instructor cannot exist unless they teach a course.

A Course cannot exist unless it has an Instructor. Tag-Team teaching by Instructors is not permitted.

A newly hired Instructor, not yet assigned to a course, may therefore not be part of this entity.

If the business rules dictate that this is not so, the relationship is incorrect. (See next example)



Interpreted as :

An Instructor *may* be teaching One or More Courses.

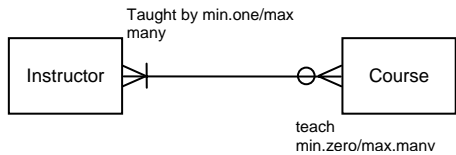
A Course *must* be taught by One or More Instructors.

A newly hired Instructor, not yet assigned to a course, can exist.

A new inexperienced Instructor, can be paired up with an experienced Instructor to teach a course until they are confident to teach solo.

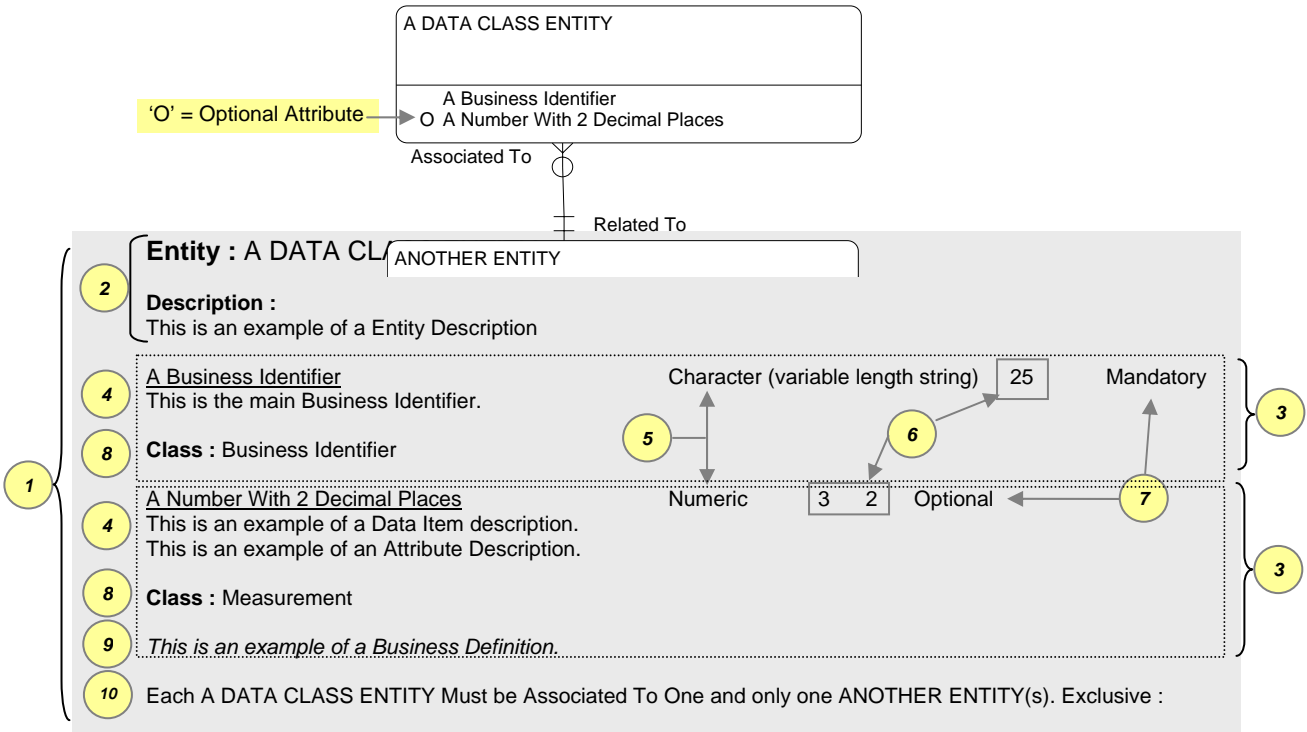
A Course cannot exist unless it has an Instructor.

Once again, if the business rules dictate that this is not so, the relationship is incorrect.



Appendix 2: Interpreting a Data Dictionary

General guidelines on how to interpret a Business View Logical Model Data Dictionary



1. Entity Block
2. Entity Name and Description
3. Attribute Block
4. Attribute name (underlined) with item description (below). Sometimes, the item is also described at the attribute level to describe its specific usage within an entity.
5. Field Type. E.g.: Character, Numeric, Date etc...
6. Field Length and where applicable – number of decimal places. The maximum capacity for a field's content is determined by the Item's set length. With the examples above...
 - The 1st item, has been defined as a Character (Variable length string) field, with a maximum length of 25 characters.
 - The 2nd item has been defined a Numeric field with a width of 3 including 2 decimal places. (9.99)
 Other numeric definition examples: 99.99 would be defined as 4 2, 999.9 as 4 1, 999 as 3 0 etc... Whenever numeric data items are defined, it is good practice to include an example in the item's description.
7. Attribute Optionality within Entity. Optional attributes are prefixed with an 'O' within an Entity's ERD.
8. Logical Class of the Data Item. Examples include:
 - Business Identifier: a field used by a business area as a reference to obtain more information.
 - Code: Where values are stored as a code – with the full value sometimes stored in a corresponding lookup table.
 - Date: For storing date information e.g.: Year, full or partial dates, character dates etc...
 - Description: For storing long descriptions.
 - Flag: Where the field is used to store a condition that may be used by the business area to trigger an event.
 - Identifier: Where field is used to store an identifier e.g.: a Licence Number.
 - Indicator: Usually Boolean e.g. Yes/No
 - Measurement: The unit of measure is also defined e.g.: mm, feet, kilograms etc...
 - Name: Where field is used to store a name. e.g.: Lake Rome
 - Quantity: Where a field stores a value that measures quantity. E.g.: Number of Moose Observed: 12
9. Business Definition. E.g.: *Valid Values in NRVIS_2NUM Lookup Table*
10. Entity Relationship Description