



Land Information Ontario

NRVIS/OLIW Data Management Model For
Forest Resources Inventory Status (v.1)

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Additional Information

For more information about this document, please contact Land Information Ontario at (705) 755-1878 or lio@ontario.ca

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Preface

For most of the Ontario Government's geospatial information holdings, successful data management is achieved through the process of documenting data standards. This document summarizes the basic data management requirements for specific Land Information Ontario (LIO) Concrete Class(es).

Several corporate applications are used by LIO to manage, disseminate, protect and make accessible where available, all of the geospatial holdings that reside within the Ontario Land Information Warehouse (OLIW). The major applications are:

- Data Standards Repository (DSR)
- Land Information Ontario (LIO)
- Land Information Ontario Warehouse (LIOW) also occasionally referred to as (OLIW)
- Land Information Data Subscription System (LIDS)
- Land Information Publishing System (LIPS)
- Land Information Security Administration System (LISA)
- Internet Mapping Framework (IMF - includes Web Mapping and Web Feature Services)
- Natural Resources Values Information System (NRVIS) Administration
- Ontario Land Information Directory (OLID)

If the information that you are looking for cannot be found in this document, LIO has a Support Team that can answer additional questions about a Data Class. It follows a **three-tiered support model** to assist clients as follows:

When a user/client has a question about the dataset, they will initially contact...

TIER 1

Information Access Helpline

(705) 755-1878 email: lio@ontario.ca

If the Helpline staff cannot provide assistance, where applicable, the request will in be passed on to...

TIER 2

***NRVIS Support Helpline**

Contacts provided by Tier-1

If NRVIS Support staff cannot provide assistance, they will consult with the appropriate Tier-3 contact Info, and then get back to the client.

TIER 3

Tier-3 support is directed to the appropriate contact based on the nature of the client's enquiry and category:

Application focus – related to programming, application functionality.

Data focus – related to the Information Owner's data, standards and guidelines where a business area expert needs to be consulted.

Tier-3 contacts are consulted or provided by Tier-1 or Tier 2

** Please note that Tier-2 support is intended for datasets that are maintained by the NRVIS Application. OLIW-only dataset enquiries will be fielded directly to the Information Owner (IO) if assistance cannot be provided by Tier-1 support staff.*

Data Analysis and Enhancement Projects are supported by staff with the Ontario Land and Resources Cluster (LRC), GIS Business Solutions Section (GIS-BSS), GIS Data Services (GDS)

Caveat: The information within this document is relevant to the date it was produced, and may become outdated over time. The Information Owner for this Concrete Class is responsible for updating the OLID metadata record for their information holdings. The reader is encouraged to review the corresponding OLID record to obtain up-to-date information about Concrete Classes. The OLID Metadata record search engine, along with additional information about OLIW itself can be found by visiting the [LIOW data page](#).

Background and Context

A primer about the data class that describes what the information looks like, along with an introduction to the business area (Information Owner) that is responsible with its upkeep. Web links to additional supporting material are provided where applicable.

The Forest Resources Status layer was developed so that interested parties can find out the current production status of any given Forest Resources Inventory (FRI) unit in Ontario, along with the availability of associated FRI packaged products from the Land Information Ontario Warehouse (LIOW) through the Land Information Data Subscription (LIDS) service.

This layer will be available for viewing to NRVIS users, and downloadable as a structured product through LIDS. The intent is to also make this layer available for public-facing Web Mapping Services.

This document provides details about the standards, access rules and maintenance that pertain to the FRI Status layer.

For additional information about how to interpret and use the information provided in this layer, please refer to the **FRI Status Map USERGUIDE** that is available for download from the Land Information Ontario (LIO) website [Data in the Warehouse](#) page.

Information Owner

An Information Owner is responsible for defining the structure, access and upkeep of their business areas' information assets. They are also responsible in communicating with their stakeholder community and to evaluate their business needs.

**Ministry of Natural Resources (MNR),
Science and Information Resources Division (SIRD),
Science and Information Branch (SIB),
Inventory Monitoring and Assessment Section (IMA), Forest Resource Inventory Program**

Status: Established

Concrete Class Details

Forest Resources Inventory Status v.1 (FORESTAT)

This layer provides the general current production status of all Forest Resources Inventory (FRI) units in the province of Ontario. It also indicates the availability of digital inventories from the Land Information Ontario Warehouse (LIOW) as structured (Forest Cover data class) and packaged (zip file) products through the Land Information Data Subscription (LIDS) service.

It is important to note that forest inventories are differentiated by the following two versions or products:

1) Forest Resources Inventory (FRI):

This is the initial or first new data capture version of the forest resource inventory for a unit that is delivered to OMNR Districts and Sustainable Forest Licence (SFL) holders. In most cases, it involves the complete re-inventory of the forested land within a unit. It provides a basis for planning inventories described below.

2) Planning Composite Inventory (PCI):

Once delivered, the FRI (1) is updated by OMNR Districts and Forest Companies for

Forest Management Planning purposes. Spatial and attribute data are updated on an as-required or scheduled basis to reflect changes to the forest landscape (e.g. natural disturbances, harvesting and regeneration). The planning inventory contains additional attributes and information that conform to Forest Information Manual (FIM) standards to support the forest management planning process.

Note: The majority of FRI unit boundaries represented in this layer reflects, and are kept current to the latest version of the Forest Management Unit boundary layer.

For additional information, refer to the NRVIS User Guide for this layer that is available for download on the Land Information Ontario (LIO) website Data in the Warehouse page.

Modeling Template: Simple

Simple modeled NRVIS/LIO concrete classes are implemented to be independent from common tables that are normally shared with standard concrete classes.

Target Databases: NRVIS (v.4.4.x) and OLIV (2011). This layer became operational in NRVIS as of Jan. 13, 2011.

Sensitivity Classification and Rationale: Non-Sensitive

None of the information stored in this layer is deemed to be sensitive.

Sensitivity Governance: None.

Roles and Responsibilities

The following lists crucial roles and responsibilities that are associated with this data class. These roles are described in further detail in [Appendix-1](#) of this document.

Information Owner - Executive

Branch Director or equivalent

Information Owner - Program

Coordinator

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD), Science and Information Branch (SIB), Inventory Monitoring and Assessment Section (IMA), Forest Resource Inventory Program (FRI)

Main Business Area Contact

FRI GIS Officer *Main lead contact and expert for this data class involved with identifying business area requirements, NRVIS Administrator and maintenance of the data including the metadata (OLID) record.*

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD), Science and Information Branch (SIB), Inventory Monitoring and Assessment Section (IMA), IMA Services

Business Area Expert

Information Management Coordinator - Forests *Input as stakeholder to support business area information requirements re: Forest Management Branch.*

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD), Geographic Information Branch (GIB), Information Management, Policy and Standards Coordination Section, Sault Ste. Marie Group

Information Specialist *Input as stakeholder to support business area information requirements re: Forest Information Manual (FIM).*

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD),
Geographic Information Branch (GIB), Information Management, Policy and Standards
Coordination Section, Sault Ste. Marie Group

Forest Resource Inventory Specialist *Consulted for business area requirements.*

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD),
Science and Information Branch (SIB), Inventory Monitoring and Assessment Section (IMA),
Forest Resource Inventory Program (FRI)

FRI GIS Officers *Business experts, maintenance (data).*

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD),
Science and Information Branch (SIB), Inventory Monitoring and Assessment Section (IMA),
IMA Services

Information Management Specialist *Stakeholder interest on behalf of IMA re: maintenance plan for this layer by the Forest Resource Inventory Section.*

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD),
Science and Information Branch (SIB), Inventory Monitoring and Assessment Section (IMA)

Forest Analyst *Provided business area requirements re: status of Planning Inventories.*

Ministry of Natural Resources (MNR), Forests Division (FD), Forest Management Branch (FMB)

Business Area Use

Intended Use and Purpose: To provide interested parties with the status and availability of Forest Resources Inventory versions from the Land Information Ontario Warehouse (LIOW) along with associated packaged products that are available from the Land Information Data Subscription (LIDS) service.

Where available, packaged products for archived pre-2002 inventories may be of interest for historical purposes.

Business Drivers: Supports the Forest Information Manual (FIM) and provides various MNR business areas with fundamental forest inventory information needed to meet their program mandates.

Use Caveats: The status and availability of the FIM version 2 compliant Forest Resources Inventory pertain to units loaded into the Forest Cover LIO data class from 2004 onward. The availability of packaged products may be unavailable for every unit.

Geospatial Details

This section describes how the data will be spatially represented.

Default geospatial reference details for all NRVIS/LIOW concrete classes:

Grid or Coordinate System: *Geographic (Lat., Long.)*

Map Projection: *Not Applicable*

Horizontal Datum: *NAD83*

Vertical Datum (z-scale): *Not Applicable*

Vertical Positional Accuracy: *Not Applicable*

NRVIS/OLIW Abstract Class: SPMNTPOLY

Spatial Multi-Non-Tessellating-Polygon: An object is represented by ONE or MORE polygons. Polygons may NOT overlap. HOLES within and GAPS between polygons ARE allowed. Example: the St. Lawrence Islands National Park, where the Park itself is made up of many islands.

Geographic Extent: Province

Geographic Completeness: For all Forest Resources Inventories in Ontario.

Average Horizontal Positional Accuracy: Within 20 metres

Data Life-Cycle and Maintenance

This section provides details about the data's life-cycle

Maintain and Publish

Responsibility of: Inventory Monitoring and Assessment Services section - FRI GIS Officers and/or designates.

Agency Location(s): Sault Ste. Marie, Ontario

Frequency: Data will only be updated on an as-required basis.

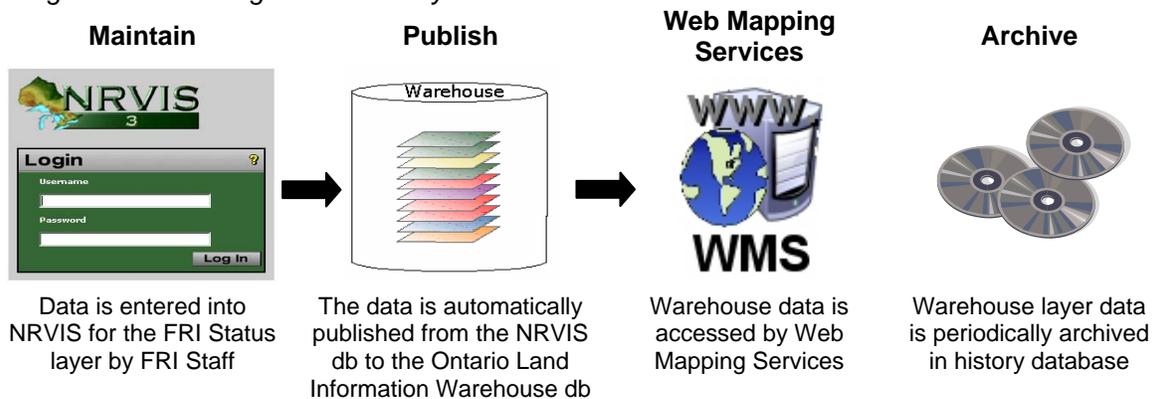
Procedures/Standards:

- Spatial and attribute data will be loaded/imported directly into NRVIS by one of the FRI GIS Officers as soon as the data class is operational.
- Subsequent updates to the data will take place on an as-required basis to reflect the changing status and availability of a Forest Resources Inventory. The Forest Management Branch Forest Analyst will also provide Planning Inventory tabular updates on an as-required basis to the FRI GIS Officer for inclusion / updates into the FRI Status layer.
- Changes will be automatically published to the LIOW database, which will be reflected in the layer accessed by Web Mapping Services.

Tools/Forms/Applications: NRVIS, ESRI ArcMap

Data Life-Cycle Diagram

Diagram summarizing the data life-cycle for this concrete class



Data Access and Services

This section provides details about the access management to the information stored in this data class. Some of the information documented here governing the scope of access is summarized in the Information Access form that is officially filed with LIO's Information Access Services Section.

Due to the nature and origin of the data stored in Concrete Classes, there are often special rules and considerations that control how the data is to be accessed, used and maintained.

Data Access Use Restrictions/Constraints: No data restrictions.

Data Access Maintenance Restrictions/Constraints: Edits to be done by IMA Services staff only.

Web Mapping Services (WMS): Yes – WMS to include all layer attributes for identifying and querying.

NRVIS Administration Details:

Field Data Capture Form: No

Is NDD available for this Data Class?: No, NDD is not required.

Personal Information Stored: No

Area of Responsibility: Province (Ontario)

Default NRVIS Access Privileges:

- General NRVIS Users Browse
 - FRI GIS Officers and designates Check-In
-

Physical Model

The implemented database physical data model diagram and data dictionary for this data class can be found in the Standard NRVIS Interchange Format (SNIF) report published to the Land Information Ontario [Data in the Warehouse](#) web page.

As with any data class, model modifications may have taken place post-implementation and after the authoring date of this document. For example, tables, relationships, attributes and/or lookup table/domain values and Geographic Unit Types (GUTS) may be added, redefined or removed. The published SNIF reports found on the LIO website will always reflect the latest implemented version of the data class.

Appendix 1: Data Class Role Descriptions

Confirmed roles and associated responsibilities are crucial for the successful implementation and continued maintenance of all structured geospatial information holdings. The following is a listing of primary role types and context.

Role	Responsibility	Organization / Position
Information Owner - Executive	Information Owner at the executive level who: <ul style="list-style-type: none"> - Sets overall strategy and high level policy for Branch business areas programs with regards to the information holding. - Recognizes information holding as a Branch asset and responsibility by signing the Data Access and Distribution (DADA) form filed with Information Access. 	Varies Branch Director or equivalent
Information Owner - Program	Information Owner at the program level who: <ul style="list-style-type: none"> - Approves and promotes standards, guidelines and procedures for their information holding including its continued maintenance. - Approves deliverables associated the above, including those associated with data modeling projects and enhancements. - Ensures that the appropriate business area experts and resources are available to define and implement the abovementioned deliverables. - Ensures the continued maintenance, data safeguarding (where required) for the information holding. - Ensures that their information holding's user and stakeholder community are kept informed engaged. 	Varies Business area's Section Manager or equivalent
Main Business Area Contact	Main business area lead at the operational level who: <ul style="list-style-type: none"> - Is contacted for modeling and enhancement decisions - Is very familiar with the information holding and its maintenance standards. - If contacted by LIO and NRVIS Support, can answer technical questions about the information holding or... - Direct these questions to or obtain answers from their appropriate business area expert. 	Varies Usually one of the Business Area Experts who is coordinating work and standards associated with the Information holding.
Business Area Expert	Intimate with the information holding at the operational level who is responsible for <u>one</u> or <u>more</u> of the following: <ul style="list-style-type: none"> - Defining the business area's information holding requirements, standards, guidelines and procedures. - Create/update the information holding's official metadata record (OLID). - Is intimate with the information holding's standards and maintenance. - Making or overseeing updates to the information holding and preparing the data for loading into the OLIW database via the NRVIS application or SNIF packages. - For NRVIS data classes: is the NRVIS Administrator who controls the level of access (browse, edits, database check-in) privileges to the information holding by the NRVIS user community. - Answering questions and providing support about their data, standards and guidelines. 	Varies Can be from the same or a different business area for the information holding

Appendix 2: How to Interpret a Data Model Diagram

The chart below provides a basic primer on how to interpret the symbology seen in a model's Entity Relationship Diagram (ERD).

