Ontario
LAND INFORMATION ONTARIO

Quarterly Newsletter
October 2008

INSIDE THIS ISSUE...

FEATURED DATA IN THE WAREHOUSE

Wildlife Management Units

MOST REQUESTED DATA SETS

Water Line Segment
Water Polygon Segment
Wetland Unit
Lot Fabric Improved
Aggregate Site Authorized
Assessment Parcel
MNR Road Segment
Geographic Name Extent
Municipal Boundary
ORN Segmented with Address

Coordinator's Update

By Raphael Sussman

Welcome to the fall edition of our newsletter. The leaves are changing colour throughout Ontario and we are all working on our fall geospatial activities and planning next year's projects, operations and budgets. At the Ontario government, several ministries and communities of practise are in the process of developing or revising significant ministry-wide Geographic Information Systems (GIS) strategies, and LIO has been pleased to be able to share its extensive experience and contacts with the organizers of these initiatives. Organizational change also seems to be quite prevalent at many local government organizations and federal departments, and both the role of GIS and geospatial data, and the way in which it is delivered, is changing.

We would like to thank those of you who have been active participants in Land Information Ontario and look forward to continuing our relationships with you and others in your changing roles.

We appreciate your feedback and ask that you take a moment to send us your comments about Land Information Ontario. We would like to thank Favelle Maschke, the Communications Specialist who has done an excellent job in producing the last four issues of the LIO Newsletter as we welcome Carrie Belton back from her leave of absence. Contributions for consideration in an upcoming LIO Newsletter issue should be sent to carrie.belton@ontario.ca.

Raphael Sussman

Welcome New Data Exchange Members!

Visit this link for a complete Ontario Geospatial Data Exchange membership listing

Ontario Parcel Report

By Carla Jordan-Cooke

Did you know…
The provincial Nutrient Management Act regulates the storage, handling and application of nutrients that could be applied to agricultural crop land. The objective is to protect Ontario's surface and groundwater resources. This act requires farmers or consultants to submit plans explaining how they are going to manage nutrients on specific farm parcels.

The Ministry of Agriculture, Food and Rural Affairs (OMAFRA) uses an intranet web site to verify parcel information and determine if statements made in plans or strategies (i.e. proximity to surface water, distance to other parcels, etc.) are consistent with GIS data. To geographically locate the positioning of the farms involved in the plan or strategy, the parcel fabric is listed as the key layer, and the tax roll number is the key attribute.
For more information on the Ontario Parcel, please contact: carla.jordan-cooke@ontario.ca

Technology Report

By Bruce Wurtele

The first phase of the GIS Application Architecture Renewal Project is currently wrapping up with the finalization of the Business Case. This document assesses the current status of the GIS enterprise application portfolio serving Land Information Ontario and makes high-level business recommendations for redesign and improvement of the portfolio.

The Business Case also outlines a set of principles which will govern decisions throughout the upcoming implementation process. This document has been distributed to select OPS partners for comment and it is expected to be wrapped up soon. For more information please contact bruce.wurtele@ontario.ca

Feature Data in the Warehouse – Wildlife Management Units

A Wildlife Management Unit (WMU) is used for a number of wildlife management purposes, one of which is to indicate the relevant geographic areas of Ontario where hunting open seasons and harvest quotas apply.

A Wildlife Management Unit (WMU) is a polygon feature that identifies a geographic area, (i.e. numbered divisions of the Province of Ontario) which serves as a permanent land base for wildlife research and management. These units have been developed in Ontario based on the environmental requirements of principal wildlife species, ecosystems, and suitability of boundaries to traditional and future users, landowners, municipalities and other jurisdictions.

Boundaries are generally described by rivers, lakes, roads, and other features easily recognized on the ground. A few exceptions occur where less visible criteria (for example, township/district boundaries) have been used in the absence of suitable physical features. WMU boundaries are registered in Ontario Regulations.

For more information about hunting regulations and to view WMU maps, visit the wildlife management website: http://www.mnr.gov.on.ca/en/Business/FW/Publication/MNR_E001275P.html

Ontario Trail Network

By Carol-Anne Albertson

Ontario Trails Network (OTN) data is currently available to registered users through the LIO Warehouse. The OTN is composed of two data classes:

1. **OTN Trail Segment:** OTN trail segment is a geospatial database of Ontario's trail network. It contains trail geometry which describes the characteristics of a trail (e.g. trail name, length etc.). A trail segment is a line feature which defines a linear corridor through the natural or urban environment.
2. **OTN Trailhead:** OTN trailhead is a geospatial database of Ontario's trailheads. A trailhead is a point at which the trail starts. A trailhead exists for each trail. A trail may consist of one or more trail segments.

Currently there are over 750 trail head locations across Ontario and over 2100 km of trail segments relating to trails in Ontario. The OTN is a progressive product and as more trail organizations provide data to the OTN, the product will form a concise geospatial database of all trails in Ontario. Recent OTN updates include the Bruce Trail, Rainbow Routes, the Voyageur Trail and theTown of Seaforth. If your organization has not joined the OTN, we encourage you to get involved!

The OTN will eventually include all trail networks in urban, rural and wilderness settings, including:

- trails with natural or treated surfaces;
- bicycle routes;
- walkways, boardwalks and sidewalks;
- access roads (i.e. forestry and mining roads) designated for trail use; and
- waterway and portage routes.

Land Information Ontario, the Ontario Trails Council and Trans Canada Trail Ontario will be hosting regional trail workshops across the province. These workshops are free and are open to any trail organization in Ontario. In addition, workshops and community meetings are planned in North Shore Lake Superior, Cochrane, Atikokan, Dryden, and Kenora.

For more information regarding the Ontario Trail Network contact carolanne.albertson@ontario.ca

We will be holding sessions at these locations:

London: October 3rd, 2008
Merrickville: November 14th, 2008
Barrie: November 21st, 2008
Peterborough: December 5th, 2008
Sarnia: February 6th, 2009
Sudbury: January 16th, 2009
Niagara: February 13th, 2009
Thunder Bay: To Be Determined

2008 Workshops:
Peterborough: Trails Workshop - December 5th, Trail GPS training - December 6th

Metadata – Discovering Ontario's Information Assets

By Sandra Johnson

Land Information Ontario (LIO) is embarking on a project to assist ministries, municipalities and Conservation Authorities in making their key geospatial datasets more accessible through metadata creation and publication. This project will include (in collaboration with the Federal Geographic Data Committee) onsite training to help organizations with cataloguing initiatives.

Metadata is commonly described as 'information about information', and is the roadmap that helps us search for information. Metadata provides details about information including the quality and condition of data. Metadata is all around us - from items on a menu to nutrition labels displayed on food in the grocery store.

The slightest error in metadata capture can have a huge impact on data interpretation and use. As an example, NASA lost its $125 million Mars Climate Orbiter because engineers used variations in measurement. One group used kilograms and meters, while another used pounds and feet. The error caused the spacecraft to fly too close to the Martian surface, where it either burned up or broke up as it swung around the planet. It wasn't the data that was at fault; it was the metadata (Environmental Protection Agency, USA, 1999).

By setting up metadata for the documents and data sets we create, it allows us to classify, categorize and tag information. Metadata makes it easier to find and manage information whether it's on a website, in a database, buried in an electronic record, or part of a paper document. Metadata can help determine the quality of data that is discovered and interpret data.

A consistent approach to metadata helps people search and use data. Metadata can help reduce time, money and effort spent by collecting the same or similar information. As a result, Ontario has developed several metadata standards for information resources, web content, and geographic data holdings. As operating budgets become tighter, it is important for organizations to tap into the data resources that have been created across the province. For more information on metadata, please contact Land Information Ontario at lio@ontario.ca.

The Technical Terminal –
your source for technical updates

LIDS Release Notes

View Data in the Warehouse

Check out our Training Schedule

Behind the Scenes… The LIO Support Line

Land Information Ontario provides general and technical support to members of the Ontario Geospatial Data Exchange (Data Exchange). This includes assistance with software, metadata support, data access, data sharing, data security and data use.

LIO Support can be reached within business working hours at (705) 755-1878 or by email at lio@ontario.ca.

Ontario Road Network

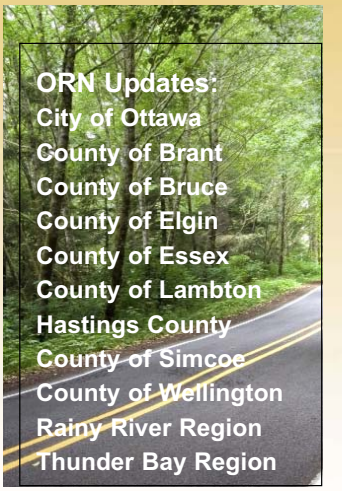
By Carol-Anne Albertson

The Ontario Road Network (ORN) features more than 202,000 kms of roads. The ORN dataset contains attribute information such as street names, street addresses, road classification, road surface type, direction of flow and speed limits.

The Ontario Road Network is available at no cost to through the LIO Warehouse as either a Linear Reference System (LRS) or a segmented data set. The segmented version of the ORN is derived from the original LRS data set and is suitable for routing and context mapping. The segmented data set currently provides attributes such as street names, alternate street names, address ranges, road class and direction of traffic flow.

We are always in the process of refining or updating ORN data. Regular maintenance to municipal data includes new and improved geometry, new and revised street names and/or address ranges. These ORN updates have created a road product stretching over 234,000 km featuring over 185,000 km of roads are named and over 151,000 km have a street range address.

The ORN is considered the authoritative source of roads data for the Ontario Public Service under the Government Information Technology Standard, GO-ITS 29. The ORN has a positional accuracy of 10 metres or less from which the National Road Network information is extracted. Over the summer, the ORN geometry was updated to the National Road Network.



Visit: www.geobase.ca/geobase/en/news/2008/nrn

LIO will be enhancing the ORN by releasing a streamlined LRS data model for the ORN. The proposed ORN v2.0 LRS model involves a variety of additions and modifications from the original version. The primary focus is to improve the efficiency and use of the ORN, and promote the Linear Reference System. The current ORN LRS dataset will be migrated to the enhanced ORN dataset in the fall of 2008. For more information regarding the Ontario Road Network, contact carolanne.albertson@ontario.ca

Digital Imagery

By Mike Robertson

The Simcoe/Muskoka/Dufferin acquisition is complete and data is ready for delivery. Large storage is needed for quality control, quality assurance, and the distribution of imagery data.

The DRAPE project has captured 80% of imagery data, with the remaining imagery scheduled for leaf-off conditions in the fall of 2008. This imagery is currently being processed and we will not be in a position to distribute the data until late winter.

In the south, SWOOP II discussions have started with a possible data acquisition starting in April 2009. For more information on imagery projects, contact mike.robertson@ontario.ca

Did you know…

Natural Resources Canada produces the National Road Network (NRN), a representation of over 1.1 million kilometres of continuous accurate centerline for all non-restricted use roads in Canada

Land Information Ontario Supports Trails in the Frontenac Arch Biosphere Reserve

The Frontenac Arch Biosphere Reserve extends roughly 2700 square kilometers in the south eastern portion of Ontario between Sydenham, Westport, Brockville and Kingston. Noted for its remarkable biodiversity, (five eco-systems merge here), the region was designated by the United Nations in 2002 as one of the 15 UNESCO World Biosphere Reserves in Canada. There are over 500 Biosphere Reserves located throughout the world.

With the support of the Ministry of Training Colleges and Universities and the Ministry of Health Promotion, FABR has begun a major trails development initiative encompassing the entire region of the Biosphere Reserve. Guided by the Ontario Trails Council, a local network is being developed with area trail owners and managers. Trail types include hiking, biking, walking and paddling. Creating trails is a lot of work! The FABR team includes a work crew of eight to assist trail managers with trail maintenance and development; and three GIS technicians to map over 2,000 km of various trails in the region. Land Information Ontario has played a significant role in the project by lending GIS equipment to the project and providing technical training and advice.

This trail initiative is seen as a way to encourage sustainable tourism and to promote regional economic development in the region. As a bonus, recreational trails offer personal health benefits. A website is being developed where trail owners and managers can maintain their own data and information. The website will also allow the public to find a variety of trails and information located within the Biosphere Reserve region.

The formation of the FABR Trails Council will be completed by the end of the year. As the project continues, trail data is being loaded into the LIO Warehouse.

FABR is a non-government community organization. For more information, visit www.fabr.ca for maps of the FABR region.

The FABR team collects trail data through GPS >>>

Land Information Ontario partners with Google Maps

By Chris Eckstein

In September, Land Information Ontario (LIO) introduced a robust new service powered by Google. This new service, known as the Ontario Public Service (OPS) Google Map Service, is the result of a partnership with the Office of the Corporate Chief Strategist's Common Components, Applications and Services (CCAS) and the Land and Resources I&IT Cluster. Currently, the OPS Google Maps Service is only available to staff within the provincial government.

OPS Google Maps allow users to zoom in or out; obtain driving directions, satellite imagery, street and hybrid views as well as incorporate custom markers.

The OPS Google Map Service will improve the government's service delivery. Whether you are looking to offer an interactive map to the nearest location of a child care centre or you want to provide driving directions - the OPS Google Maps Service can help. With Google Maps, you can quickly and cost-effectively integrate a user-friendly mapping technology into your existing web application and give your clients the maps and directions they need.

The Google Maps API provides access to the data stored by Google, which excludes most of the imagery that LIO has acquired over the last several years and does not include a large amount of our base data. This tool is appropriate for applications where it is not important for the data (using the tool or overlaid on the Google tool) to line up with other provincial data. As such, this tool is not a replacement for all other existing LIO tools.

The Google Maps API lets you embed Google Maps into your web pages with JavaScript. The API provides a number of utilities for manipulating maps and adding content to the map through a variety of services, allowing you to create robust maps applications. This service is fast – with a response time in less than a second, it strengthens the suite of LIO services.

The service will greatly improve the end-user experience and allows you to display the familiar Google Maps look and feel while presenting simple types of OPS geospatial information. End-users will be able to view basic or custom maps and relevant OPS information, including office locations, contact information, and driving directions instantly.

For more information regarding the OPS Google Maps Service, contact chris.eckstein@ontario.ca