Quarterly Newsletter
July 2008

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NEW DATA IN THE WAREHOUSE

Source Protection Area Generalized

MOST REQUESTED DATA SETS

Lot Fabric Improved
Water Polygon Segment
Water Line Segment
Wetland Unit
Trail Segment
Geographic Name Extent
Road Segment
Building To Scale
Nesting Site
Aquatic Resource Area Polygon

Coordinator's Update

By Raphael Sussman

Welcome to the summer edition of our newsletter. It has been three years since we started issuing LIO Newsletters, and we appreciate the feedback we have received. Please consider taking a moment to send us your suggestions or comments about Land Information Ontario. Contributions for consideration in an upcoming LIO Newsletter should be sent to Favelle Maschke at favelle.maschke@ontario.ca.

In our Technology update, we are pleased to report improvements to the Data Download service in the LIO Warehouse, and the inclusion of attribute data embedded directly in the Shapefile coming from the Warehouse, termed "Enhanced DBF". Our GeoCoder web service has also improved, and warrants looking at again.

On the Data Exchange front, we are a little disappointed to report that the Ontario Geospatial Data Exchange Agreement is still under review. We ask for your continued patience during the legal approvals. However, we are pleased that membership continues to increase at impressive rates.

Raphael Sussman

Welcome New Data Exchange Members!

- Corporation of the Township of Faraday
- County of Brant
- Corporation of the City of North Bay
- Corporation of the Municipality of Shuniah
- Matachewan First Nation
- Serpent River First Nation
- Windigo First Nations Council

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

Ontario Parcel Report

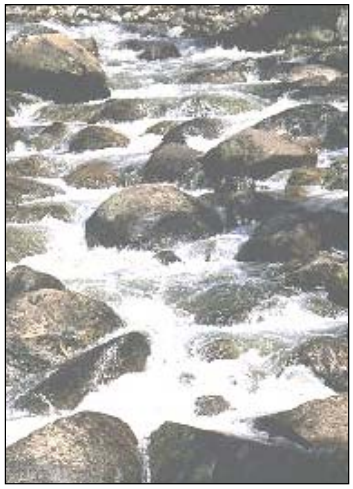
By Carla Jordan-Cooke

The Ontario Parcel database is a standardized, integrated representation of ownership and Crown parcel mapping for land use and business planning, assessment, taxation, and land registration.

Recently, the Municipal Property Assessment Corporation provided an update to the civic addressing data that links to the Ontario Parcel geometry. This upgrade was overdue, as address data had not been updated in almost a year. We are now getting updates loaded in the LIO Warehouse on a regular basis.

The City of Orillia and County of Northumberland signed Ontario Parcel Municipal List user agreements. For more information on the Ontario Parcel, please contact: carla.jordan-cooke@ontario.ca

Hydrographic Data Project



As part of an ongoing multi-year hydrographic data strategy, LIO is making improvements to the hydrographic (water) data that resides in the LIO Warehouse. These improvements include:

- Preparing a new, logical hydrographic data model
- Merging Water Resources Information Project and Natural Resources Values Information System waterflow data
- Incorporating the use of Geographic Names
- Investigating a process to generalize hydrographic data
- Incorporating delimiters to separate lakes from rivers (to conform to the National Hydrographic Network).

Consultation with key users/producers of hydrographic data is underway to outline the maintenance and a process to integrate large-scale hydrographic data from Conservation Authorities.
For more information on the Hydrographic Data Strategy, please contact: shawn.kelleher@ontario.ca.

Feature Data in the Warehouse – SOLRIS

Southern Ontario Land Resource Information System (SOLRIS) is a landscape-level inventory of natural, rural and urban areas within Eco-regions 6E and 7E, based upon the Ecological Land Classification for Southern Ontario - a standardized approach for ecosystem description, inventory and interpretation.

SOLRIS was designed as a regional scale mapping product (1:10 000 to 1:50 000) in order to satisfy landscape-scale planning initiatives such as Source Water Protection, Biodiversity Conservation, Landscape/Natural Heritage Systems planning and State of Resources Reporting.

The SOLRIS land cover data is currently accessible through Land Information Ontario.
For more information on SOLRIS version 1.2, visit:
http://mnronline.mnr.gov.on.ca/Document/View.asp?Document_ID=14945&Version_ID=54895

Ontario Trail Network

By Carol-Anne Albertson

Land Information Ontario, the Ontario Trails Council and Trans Canada Trail Ontario will be hosting regional trail workshops and GPS training across the province. These workshops are free and are open to any trail organization in Ontario. More information regarding workshop registration and workshop locations will be provided through LIO bulletins in the coming months.

For those who attended previous Ontario Trail Network workshops, there will be another session offered about trail building and mapping, with a portion dedicated to marketing, communications and fundraising. In addition, LIO will be hosting a one day GPS training day following the workshop for interested trail groups.

We will be holding sessions at these locations:
Sault Ste Marie: Trails Workshop - September 12th, Trail GPS training - September 13th
London: Trails Workshop - October 3rd, Trail GPS training - October 4th
Merrickville: Trails Workshop - November 14th, Trail GPS training - November 15th
Barrie: Trails Workshop - November 21st, Trail GPS training - November 22nd
Peterborough: Trails Workshop - December 5th, Trail GPS training - December 6th

New workshops across the province will focus on Regional Trail Committee Development, Trillium Trail Network and the Ontario Trail Network.

Thunder Bay: Dates to be determined
Sudbury (North Bay to La Cloche Regions): Trails Workshop - January 16th, Trail GPS training - January 17th – GPS Training
Sarnia (Windsor, Sarnia, Grand Bend): Trails Workshop - February 6th, Trail GPS training - February 7th – GPS Training
Niagara Region: Trails Workshop - February 13th, Trail GPS training - February 14th – GPS Training

In addition, workshops and community meetings are currently being planned in North Shore Lake Superior, Cochrane, Atikokan, Dryden, and Kenora. For more information regarding the Ontario Trail Network, contact carolanne.albertson@ontario.ca

Did you know...

The Ontario Road Network continues to be one of the most popular data sets available to LIO Data Exchange members and has been embedded in many applications and websites.

Technology Report

By Bruce Wurtele

This has been a busy quarter on the technology front for Land Information Ontario, with updates to the Imagery Web Mapping Service, GeoCoder, and the Land Information Data Download service.

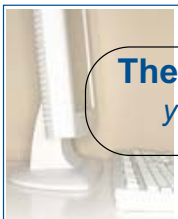
The Imagery Web Mapping Service (WMS) was updated in early May to include additional imagery products and to improve the names and grouping of data layers within the service. Another update is scheduled to add additional data classes and support for additional projections. At this time, the Imagery Web Map Service is restricted to users within the Ontario Public Service (OPS). We are continually adding new data classes to the public LIO web mapping services. These are accessible to any Internet client for use in applications or directly within most GIS software. Check the LIO website for a current list of data classes accessible through web mapping services.

Version 2.0 of the GeoCoder web service was released in May. The GeoCoder web service is a module or component designed for application developers to incorporate into their applications. It returns the geographic coordinates of a submitted Ontario address. Once address locations are geocoded, they can be displayed on maps or analyzed using most GIS software packages. The improvements to the GeoCoder have increased the effectiveness and performance of the web service by incorporating a new cross-reference table which links the assessment parcel data to a variety of place name sources. The GeoCoder is also now able to geocode a list of up to 500 addresses within a single request. For more information view the GeoCoder Technical Overview document.

Improvements to the Land Information Data Subscription service (Data Download) include an increase to the download limit and an expansion of the classes with enhanced DBF attributes. Users with a high speed internet connection can now download data packages up to 325 MB. The enhanced DBF attributes were added to 107 data classes within the warehouse. This feature simplifies the data package by joining most attributes directly to the shapefile DBF.

In the near future, we expect to implement additional data classes in the LIO Web Feature Service (WFS) as well as the SAML security module for web services. Stay tuned for more information. Remember to email or call the LIO support line (lio@ontario.ca or 705-755-1878) if you have any questions, problems, or suggestions for improving LIO applications or web services.

For more information about the GeoCoder service, visit this link:
http://publicdocs.mnr.gov.on.ca/View.asp?Document_ID=14689&Attachment_ID=29987



The Technical Terminal –
your source for technical updates

Technical Bulletins:
Additional Attribute Data Included in Shapefiles Distributed by LIDS

LIDS Download Limit Increases to 325 MB

LIDS Release Notes

View Data in the Warehouse

Check out our Training Schedule

Ontario Road Network

By Carol-Anne Albertson

Due to the complexity of the Ontario Road Network (ORN) attribute set, the ORN is managed and maintained in a Linear Referenced System (LRS) data structure within the LIO Warehouse. The segmented version of the ORN is derived from the ORN v1.0 LRS and is suitable for routing and context mapping, meeting most user needs. The segmented ORN contains attributes such as street names, alternate street names, address ranges, road class, and direction of traffic flow. Users that are looking for other attributes, (such as speed limit or number of lanes) are encouraged to download the ORN v1.0 LRS.

A series of stakeholder meetings with partner ministries, federal agencies, and the ORN user community resulted in a new version of LRS model called the ORN v2.0. The new data structure aims to:

- Simplify and streamline the LRS Model
- Improve the efficiency of the LRS Model
- Make the LRS Model easier to navigate and use
- Keep the functionality of ORN v1.0
- Conform to the standards outlined by Natural Resources Canada - National Road Network (NRN) v2.0 Model

The proposed ORN v2.0 LRS model involves a wide variety of changes, additions and deletions from the original version. The primary focus is to improve the efficiency and use of the ORN, and promote the Linear Reference System. The ORN v1.0 LRS dataset will be migrated to the ORN v2.0 dataset in the fall of 2008.

Recent ORN Updates:

- Algoma Region
- Cochrane Region
- Kenora Region
- Thunder Bay Region
- Regional Municipality of Halton
- Regional Municipality of Waterloo
- City of Barrie
- City of Hamilton
- City of Waterloo
- City of Kingston
- County of Dufferin
- County of Grey
- County of Oxford
- County of Peterborough
- Renfrew County
- The United Counties of Leeds and Grenville
- The United Counties of Stormont Dundas and Glengarry

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

Digital Imagery

By Mike Robertson

For over ten years, Land Information Ontario (LIO) has been directly involved in numerous orthophotography acquisition initiatives. LIO has helped coordinate provincial and federal interest in projects and facilitated partnership agreements. LIO has also played a key role in the recruitment of new partners and by doing so, has significantly reduced the cost to each organization.

QuickBird Acquisition

It is hoped that this summer will be a good one for acquiring imagery so that the QuickBird project can be completed. This summer, the remaining QuickBird imagery will be captured for areas that had cloud and haze issues in the past. The QuickBird imagery that has been processed is now available for distribution. Continued next page...

Orthophotography is vital in supporting photo interpretation to capture and update land information, parcels, vegetation and other natural resource and environmental data.

Digital Imagery

Digital Orthophotography Projects

Imagery has been acquired and is now being processed for the Simcoe/Muskoka/Dufferin Project. Delivery is expected in the fall and winter of 2008.

Raw data from the 2007 Forest Resource Imagery project has been reviewed for quality assurance /quality control and is being processed into orthoimagery products. This imagery is now being shipped to LIO's Information Access service for distribution within MNR. Access policies are being developed for organizations interested in imagery featuring trees in full leaf.

LIO's recent endeavor, the Digital Raster Acquisition Project for the East (DRAPE) includes partners from public and private sector organizations. With over 50 partners contributing to the DRAPE project, it represents significant savings to all involved.

This spring, imagery was acquired for 80% of the project area, but was halted due to leaf on conditions. The DRAPE project is scheduled for completion this fall, pending leaf off conditions in the project area. The imagery that was collected is now being processed into true colour, orthorectified tiles. This data is expected to be available in the fall of 2008.

For more information on imagery projects, please contact mike.robertson@ontario.ca for more details.

LIO GeoCoding Service

Geocoding converts non-geographic descriptions, such as civic addresses, into geographic locations, (i.e. coordinates) such as a point on a map. It is the first step in routing or emergency dispatch: determining the "from" and "to" locations before establishing the best route to saving lives. Geocoding is used by applications like Google Maps or Map Quest to display the closest restaurants, or a trendy new night spot. The secret, however, to successful geocoding is good data.

As part of its web service offerings, Land Information Ontario provides a GeoCoder to developers for incorporation into their applications. It determines the map coordinates by trying to match a given address, in sequence, against three high-quality data sets located in the LIO Warehouse:

- Ontario Parcel
- Ontario Road Network
- Postal Code

If the address is not found in the Ontario Parcel database, or if it is not an exact match, the Geocoder queries the Ontario Road Network.

Within the Ontario Road Network, the approximate location of the address is estimated based on where the address would fall within the range of addresses in a road segment.

If there is no road segment in the Ontario Road Network that would include the address being sought, the GeoCoder will then display a 'point' using the postal code part of the address.

The LIO GeoCoding service is intelligent enough to give a good "guess" at the correct location, even with only partial addresses or addresses containing errors. It indicates which data set was used to obtain the x and y coordinates and the degree to which the point matches the address information input.

If you are a developer, and interested in trying out the LIO GeoCoder Service, please go to http://mnronline.mnr.gov.on.ca/Document/View.asp?Document_ID=14689&Attachment_ID=29987.