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Land Information Ontario

July 2010

Coordinator's Update

Welcome to the summer issue of the LIO Newsletter.

As we reported in our last issue, LIO has begun to review everything we do to ensure LIO is providing the right programs and services to our partners and clients. We will be meeting with Ontario Government ministries soon to propose a fair and equitable funding model that will allow LIO to continue as effectively and efficiently as possible.

We are pleased that the Ontario Trail Network was recognized as part of the larger Ontario Trails Strategy initiative which won an Ontario Amethyst Award last month for exemplary cross government collaboration. Kudos to Carol-Anne Albertson and her team for all the great work they do collecting trails data across Ontario.

LIO has released a new version of the [OGDE Agreement](#), which we believe responds well to all of the input and advice we received. It is being rolled out first to current OGDE members whose agreement has expired and then, later, to new members wishing to join the Exchange.

[LIOcoder](#), our application for geocoding addresses and postal codes, is now available. Also check out recent changes to [LIO Make-a-Map!](#) Try the new simple and advanced search tools and look for new data related to Trails and Land Parcels. Find address points in the City of Toronto, aerial photography from York Region, and features from Natural Resources Canada and Fisheries & Oceans Canada.

As always, we welcome your comments and suggestions. Please write us at lio@ontario.ca.

Raphael Sussman

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Congratulations to:

Ausable Bayfield, Mississippi Valley and Saugeen Valley Conservation Authorities for being the first members to sign the revised OGDE agreement!

Welcome New OGDE Members

Township of Chapleau
Nipissing First Nation
Pembroke Area Field Naturalists
Mitaanigamiing First Nation
Town of Bracebridge
Township of South Algonquin
Corporation of the Township of Bonfield

Technology Report

By Chris Eckstein and Ted Volpe

As part of our modernizations efforts, LIO staff have been busy reviewing alternatives to LIO's core applications and services and building prototypes that could be implemented over the coming months and years. Thanks to all of you who have contributed your time and ideas. If you still want to provide us with input, it is not too late.

Please check out the [material](#) we have amassed so far and send us your comments before by August 13th, 2010. LIO supports you and the more you can tell us about your needs, the better our ability to help you do your work.

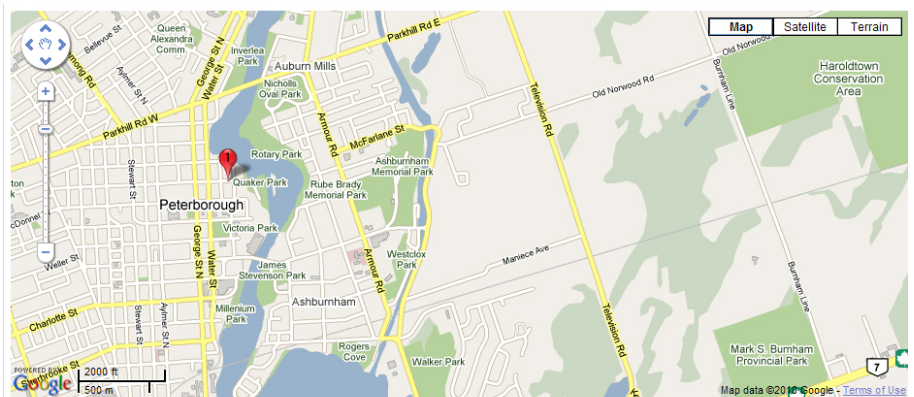
We are pleased to tell you that [LIOcoder](#) is now available for use. LIOcoder is a public web mapping application, based on LIO's GeoCoder Web Service, that lets users turn addresses or postal codes into point locations for mapping and analysis. Results are displayed in a table and spatially on a map. The results can be exported to Text (*.txt), Markup Language (*.XML) or Shapefile (*.shp) formats. We would appreciate it if you gave it a try and fill out the survey after you finish.

[LIO Make-a-Map](#) has changed recently in response to user requests. The most obvious changes, other than the improvements to performance, are that the names of water bodies are now properly displayed and that there is now both a simple and advanced search for features. The Advanced Search includes searches not possible before, such as looking for Township, Lot and

Concession. In addition, more features can be identified when clicking on them, including Assessment Roll Number for Land Parcels. For Trail users, clicking on a Trail Head displays the complete trail, and clicking on a Trail Segment lists all of the Trails with which it is associated. You can also mark up your own trail route, print it, and take it with you when you head out.

Although less obvious, the sources of data used in LIO Make-a-Map have changed. Rather than using copies of data from other sources, LIO Make-a-Map now uses data from the authoritative source through Web Map Services. Check out, for example, address points in the City of Toronto, aerial photography from York Region, and features from Natural Resources Canada and Fisheries & Oceans Canada. The search tool uses Ontario's own newly available official, and far more comprehensive, GeoNames Extent data instead of Canada's Gazetteer. Moreover, more data layers are available for discovery, such as the Wetlands, Geology, Land Parcels, and Township Lots. Please try it out and let us know how you like it!

For more information, please contact chris.eckstein@ontario.ca.



Displayed on map: ID 4 - K9H2Y2;K9H2Y2

[Save as an XML file \(.xml\)](#) | [Save as a Shapefile \(.shp\)](#) | [Save as text file \(.txt\)](#)

ID	Candidate	Number	Prefix	Street	Suffix	Direction	City	Postal Code	Latitude	Longitude	Score (%)	Match Mode	Save
1	KOL2V0;KOL2V0	1					ON	KOL2V0	44.399082	-77.93168	100	Postal Code	☒
2	K9H1C3;K9H1C3	1					ON	K9H1C3	44.30126	-78.31238	100	Postal Code	☒
3	K9H1T7;K9H1T7	1					ON	K9H1T7	44.30805	-78.31165	100	Postal Code	☒
4	K9H2Y2;K9H2Y2	1					ON	K9H2Y2	44.310886	-78.317566	100	Postal Code	☒
5	KOL1Z0;KOL1Z0	1					ON	KOL1Z0	44.506435	-77.87696	100	Postal Code	☒
6	KOL2H0;KOL2H0	1					ON	KOL2H0	44.4574	-78.3462	100	Postal Code	☒

LIOcoder application in use.

Ontario Trail Network Report

By Carol-Anne Albertson

The Ministry of Health Promotion (MHP) is the lead ministry for trail planning and coordination in Ontario. MHP works with the Ontario Trails Coordinating Committee (OTCC) to establish priorities and oversee implementation of the Ontario Trails Strategy. The OTCC involves 13 government ministries/agencies and 11 organizations that have an interest in trails. The OTCC's ministries/agencies were recognized with an Amethyst Award on June 3rd for providing an exemplary model of cross-government collaboration. Many accomplishments have been achieved including the mapping of Ontario Trails in partnership with LIO. Special thanks to all organizations that have provided us with their trail data. The Ontario Trail Network now contains more than 20,000 kms of trails across Ontario.



Ontario Trails Coordinating Committee; recognized with an Amethyst Award on June 3rd.

If you haven't done so already, check out our [web mapping application](#) to see if we have your trail information.

For more information, please contact carolanne.albertson@ontario.ca.

Ontario Road Network Report

By Carol-Anne Albertson

As we reported in earlier issues of the LIO Newsletter, the Ontario Road Network (ORN) is now being maintained using completely new processes and procedures. The decision to change direction has proven to be a good one; updates are completed much more quickly and the number of errors discovered that require repair has dropped considerably. Although we have not yet finished a complete and comprehensive review of the entire database, we are very pleased at our progress. If you have not used the ORN recently, check it out again and let us know what you think.

Through an [Unrestricted Use License](#) (UUL), the ORN is downloadable to your desktop

allowing you immediate NO COST access to street names, street address ranges, directionality and municipality name to support your business needs. Since you are entitled to unlimited updates of the ORN, ensure that you have the most current ORN data by setting your subscription to send you changes at whatever frequency you wish. Of course, if your organization is a member of OGDE, you can get the ORN, and thousands of other data sets from more than 400 organizations as well.

For more information on how the ORN can be used to support your business needs, please contact carolanne.albertson@ontario.ca.

Did you Know?

The LIO Warehouse can automatically send you edits to data classes?

All you have to do is place an order for the data class you are interested in and set your *Order Frequency to Repeated When Changed* and then select *Changed Objects*. Please note that some data classes are updated daily and it's possible you will receive updates every day. You can also set up an order to receive just the changed information on a weekly or monthly basis if you prefer.

Ontario's Hydrographic Data Strategy

By Shawn Kelleher, Project Manager, Geographic Information Branch, Ministry of Natural Resources

Ontario has one of the highest concentrations of fresh water in the world. Information about this vast collection of lakes, rivers and other water features is essential for purposes as diverse as estimating the supply of drinking water to municipalities, finding sources for water bombers putting out forest fires, establishing legal rights to water for irrigating crops and orchards, calculating flood abatement and storm water management requirements, and protecting fish spawning and moose feeding areas.

However, from the geospatial perspective, the most significant application of this hydrographic information is its use as a geographic base; Ontario's most visible physical elements, especially in its remote northern and rural areas, are its water features, and many other features are located relative to them.

The Ministry of Natural Resources (MNR) has traditionally collected and maintained information about Ontario's water features and produced hard-copy maps that were used by public and private sector organizations throughout the province. MNR remains the primary source of consolidated information on all water features for the province. For the last two decades MNR has managed its water resource information as digital data, gradually transitioning from relatively simple data models based on cartographic principles, to very complex models based on hundreds of individual uses. Over that time, organizations around the world have developed very effective multi-purpose models for water, and have recognized that water

flows over, under, and around the borders of jurisdictions, and is required for analysis and display at large, medium and small scales.

In 2007 a strategy was written to address the accumulation of data management issues related to surface water data in Ontario

MNR remains the primary source of consolidated information on all water features for the province.

and to support Ontario's portion of the National Hydro Network (NHN) led by Natural Resources Canada (NRCan). The primary goal of Ontario's Hydro Strategy is to create a hydrographic database that supports the continuum of scales and the variety of purposes needed for all users of water data in Ontario

and to develop a long term data management model. In order to implement this strategy, MNR sponsored a number of projects. The objective of the first project is to review, evaluate and rationalize all of the medium-scale data sets related to water held, managed, or distributed by Ontario Government ministries. Medium scale mapping is defined as 1:10 000 in Southern Ontario, 1:20 000 in Northern Ontario and 1:50 000 in the Far North. Subsequent projects hope to link this medium scale data with the large scale data managed by local governments and conservation authorities, as well as with the small scale data managed by national and international organizations.

The Hydrographic Data Strategy (HDS) project is now underway, and will create a series of new data classes, collectively called the Ontario Hydro Network (OHN), to be stored and made available at no cost through the LIO Data Warehouse and through GeoBase. This has proven to be a very challenging task. In addition to the information management issues common to all multi-purpose data projects, such as the establishment of information ownership responsibilities, and getting agreement on a single model to meet many purposes, this project has attempted to determine the various scales required and the long-term data maintenance work flow between partners.

The medium scale OHN data structure will include:

1. Five distinct data classes:
 - OHN - Waterbody (polygons for lakes and large rivers),
 - OHN - Watercourse (linear features consisting of rivers and streams)
 - OHN - Hydrographic Poly



- OHN - Hydrographic Line
 - OHN - Hydrographic Point (individual objects in water features that may pose hazards or impediments to waterflow and/or navigation, including falls and rapids)
2. A continuous, single-line, water flow network through OHN - Waterbody that will clearly represent the direction of flow which will reside in OHN – Watercourse data class.
 3. Official geographic names, as designated by the Ontario Geonames Board, will be associated to the hydrographic data for OHN Waterbody and OHN Watercourse
 4. The creation of a separate structured 'wetlands interim' data class.
 5. Updated hydrographic feature collection specifications.
 6. A process to integrate with, and update from, existing

'larger scale' hydrographic data sources, and

7. A series of small scale generalized hydrographic mapping products to support cartographic and web mapping services (WMS) that will be derived from the existing medium scale hydro data.

The migration of the existing medium scale hydro data (i.e. waterpoly segment and waterline segment) to the new OHN structure including

wetlands interim is targeted for the fall of 2010. Through collaboration with hydro data stakeholders, the new OHN data will be improved during planned data maintenance processes and will involve progressively populating geographic feature names and other attribute fields, incorporating larger scale data, updating topology and retiring old hydro data classes.

As users of Ontario water data, we hope you will check out the new OHN data structure and offer your suggestions on how to make the OHN the best and most useful product possible. The OHN will only succeed with strong partnerships and the ability to leverage resources from a variety of business areas. Thanks to all of those who have contributed their time and experience to this project, from all parts of the province and from dozens of different types of organizations. We look forward to continuing our dialogue with all users and managers of water information in Ontario.

For more information about the Hydrographic Data Strategy please contact Shawn at shawn.kelleher@ontario.ca.

New Data in the Warehouse

- Crown Land - MNR Acquisitions Public
- Crown Land - MNR Non-Freehold Dispositions Public
- Crown Land - MNR Unpatented Public
- Monitoring Station (includes climate, hydrometric and weather stations)
- Census 2006 Geography Products (available to Ontario Government employees only)

Ontario Imagery Report

By Mike Robertson

LIO continues to build and foster large imagery acquisition partnerships across the province and is willing to work with organizations that require high resolution imagery products.

Over the years, we have learned that it is critical to develop high quality acquisition standards that can be used across the province. Last year, Conservation Ontario and MNR's Water Resources Information Program, along with input from other stakeholders, developed a comprehensive acquisition standard that can be used to satisfy large scale mapping needs.

Project Updates:

DRAPE - Digital Raster Acquisition Project – East is wrapping up and deliveries are nearing completion. Special thanks to all the organizations that participated in this valuable partnership acquisition - we look forward to the next round in a few years time!

SWOOP2010 - South Western Ontario Orthophotography Project 2010 is now well into the production phases. The acquisition campaign was very successful and we are looking forward to seeing the first set of deliverables this fall. With an imagery spatial accuracy of 50 cm, organizations should realize that their vector data may not align properly with the imagery. MNR and LIO will lead the QA/QC process for the deliverables and will host a few workshops this summer/fall to assist partners. The stereo imagery from this project will provide partners with a new set of data that can be used for large scale mapping. We will be experimenting with new



technologies to see what these products can do for us. Updates will be available on the [SWOOP2010](#) partner website.

FRI - Forest Resource Inventory Project has approximately 110,000 sq km to be acquired and we are hoping for a good summer to complete the acquisition. Once that project is completed Ontario will have comprehensive 20 cm imagery coverage for almost all Ontario land south of James Bay.

Some consideration is being given around the acquisition of high resolution imagery products in the Far North. We are hoping that a private/public sector partnership can be formed in the north to provide imagery for a variety of land use planning and development opportunities.

For more information on these and other imagery projects, please contact Mike Robertson at mike.robertson@ontario.ca.

New Technical Bulletins

[Updates to Fire Response Data Class](#)

[Attribute Update for Tenure Pending Data Class](#)

[Attribute Added to Bathymetry Point and Line Data Classes](#)

[Arc Hydro Packaged Product Subwatershed Fix](#)

[Changes to Web Map Services](#)

[New and Expired GUTS for Nesting Site Data Class](#)

[Name of Assessment File Index Data Class Changed](#)