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# Exploring GIS Potential for Northwestern Ontario

## Land Information Ontario

May 13, 2015

# The LIO Vision



**LIO Vision:** That all geographic information about Ontario is fully integrated and accessible

**LIO Goal:** To improve Ontario's social-economic and environmental prosperity by effectively linking and supporting communities that manage and use geographic information

# LIO Support for GIS in Ontario

- Increase the value and usage of GIS by Ontario Public Service (OPS) ministries, as well as broader public sector and private sector organizations and the general public
- Increase access to geographic data for innovation and investment
- Effectively link GIS users and providers
- Provide oversight of data and infrastructure
- Promote GIS functionality and accessibility of geographic information
- Support emergency management operations throughout Ontario

# LIO Support for GIS in Ontario cont'd

- Promote a culture of sharing
- Work with ministries to develop, maintain and promote policies and standards related to geographic information and systems
- Provide customer services including tiered help desk support and targeted training
- Coordination of major provincial geospatial activities and collections
- Liaise with Federal Government, municipalities and other geospatial data users/providers
- Act in the best interests of the province to advance GIS in all sectors

# LIO Services

LIO provides services to address Ontario GIS needs including:

- Develop, acquire and maintain common geographic data sets such as Ontario Imagery, Ontario Parcel, Ontario Road Network and Census Geography for Ontario
- Promote common services and sharing of existing services and infrastructure
- Provide data access services including:
  - Data Sharing Agreements
  - Data Discovery and Distribution Services (LIO Metadata tool)
  - Web Services – 11 publicly accessible web services using live data (commercial purposes)

# LIO and Open Data

- LIO has long been a leader in the OPS in the distribution of Open Data, and has provided direction and support to numerous OPS initiatives
- LIO regularly extracts and packages information from more than 218 open data sets within the LIO Warehouse for direct download by the public - [OpenDataReport-NewsletterUpdate.docx](#)
- Given the size and complexity of geographic data, LIO distributes data from several ministries
- LIO is also making Open Data available in the form of Data Services that promote unique and imaginative ways to explore Ontario's data
- MNRF provides 60+ Restricted data sets for non-commercial use

# LIO's multi ministry involvement

More than 3,000 OPS staff in 18 ministries use GIS technology to support their business needs and deliver services to Ontarians.

Examples include:

- **MNRF** - support forest fire and emergency planning and response operations; forest management; mapping and monitoring endangered species; flood forecasting; climate change; and public facing applications.
- **Agriculture, Food and Rural Affairs** - public facing *Agricultural Information Atlas* for use by land owners, land use planners, agricultural consultants and engineers, municipal government and academia.
- **Education** – school capital priority analysis; school to school driving distance analysis; and funding.
- **Environment and Climate Change** – mapping of wellhead protection areas, water intake protection zones and vulnerable aquifers used when considering development applications and source protection policies.

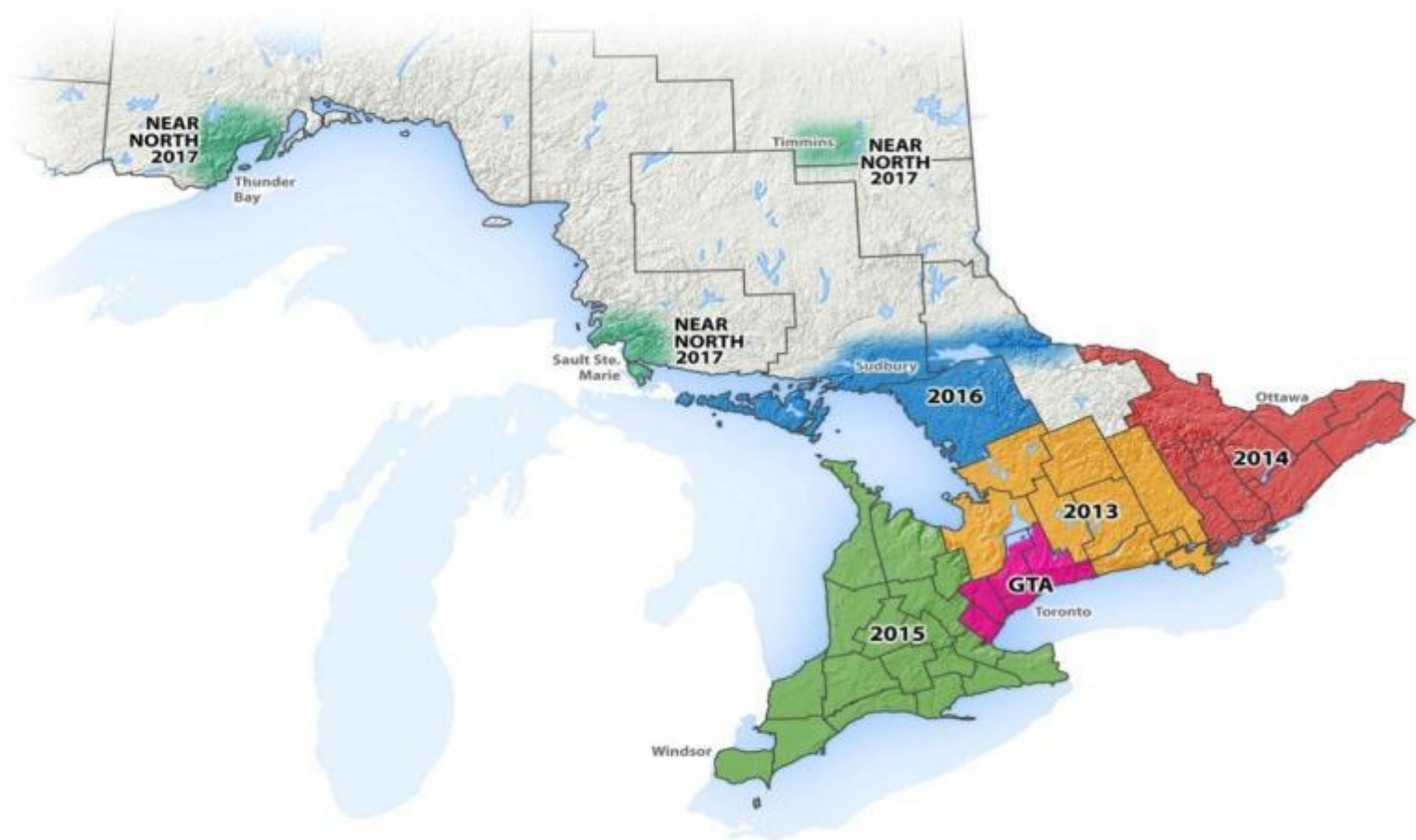
# LIO Imagery Partnership Projects

## Ontario Imagery Strategy

- Supports the collection of high resolution imagery products through a broad, partnership based funding model approach
- Includes high standards for collection (20 cm resolution) and accuracy (50 cm horizontal)
- 5 Year refresh cycle across selected areas in the province
- Provides benefits to public and private sector organizations
- Leaf off/spring imagery – also includes DSM



# Five year Acquisition Project Areas



# LIO Imagery Partnership Projects cont'd

## Imagery Project Summary - 2008 to 2015

5 Major project areas

Organization Type	Funding	# of Partners	%
Municipal	\$999,132	95	9.5
Conservation Authority	\$785,573	53	7.5
Private Sector	\$1,798,180	49	17.1
Federal	\$266,901	22	2.5
NGO	\$230,131	14	2.2
Other	\$137,762	31	1.3
Provincial	\$6,297,749		59.9
<b>Total Cost</b>	<b>\$10,515,426</b>	<b>264</b>	<b>100.0</b>
<b>Total Project Area (sq km)</b>	<b>217,432</b>		

# Forest Resource Inventory Imagery

- Available to OGDE members at no cost
- Leaf on imagery
- 10 year update cycle
- Includes DSM



# Provincial Geospatial Challenges

- True “data sharing” continues to be a challenge, even with the implementation and “success” of the Ontario Geospatial Data Exchange (634 organizations)
- Adoption of geospatial standards – many organizations take a long time to “modernize” georeferencing standards
- Data discovery through metadata records – not enough good documentation available to know what is available, how it was created etc.
- Concept of cost recovery for spatial data still entrenched in some business areas

# Provincial Geospatial Challenges

- Accessing “value added” data that is generated by consultants and other users
- Organizational fear of geospatial data not being “perfect”, therefore not made accessible
- Perceived “security risks” from private sector (utilities and infrastructure) that provision of geospatial data will result in threats/damage – those data are required in the case of emergencies
- Ability/willingness of organizations to work together to achieve a common goal

Thank you for your interest.

Questions?

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