



Eastern Ontario Transportation Needs Analysis



This project is funded by the Government of Canada through the Federal Economic Development Agency for Southern Ontario.



Project Objectives

- Assess the competitiveness of EO's current transportation infrastructure and services and provide recommendations on improvements that will enhance future growth in the region.
- Examine all goods movement/ travel needs in identifying long-term problems and opportunities and consider all modes in road, rail, air and marine as possible options to improve the overall transportation system in support of economic development.
- Identify the need and justification for transportation improvements and the feasibility of various transportation alternatives (EG: rail, road, air and marine).
- Provide an assessment of return on investment (ROI) for each of the prioritized transportation infrastructure and service improvements.



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Project Steering Committee

Andrew Wallen (Chair)	General Manager, Kawartha Lakes CFDC
Dan Borowec*	Director, Economic Development & Tourism, County of Northumberland
Jeff Dixon	Assistant Director, The Monieson Centre
Susan Fournier*	Executive Director, Valley Heartland CFDC
Gerard Hunt	Chief Administrative Officer, City of Kingston (Eastern Ontario Mayors' Committee)
Jim Hutton	Chief Administrative Officer, County of Renfrew (Eastern Ontario Wardens' Caucus)
Tim Simpson	Chief Administrative Officer, County of SD&G (Eastern Ontario Wardens' Caucus)

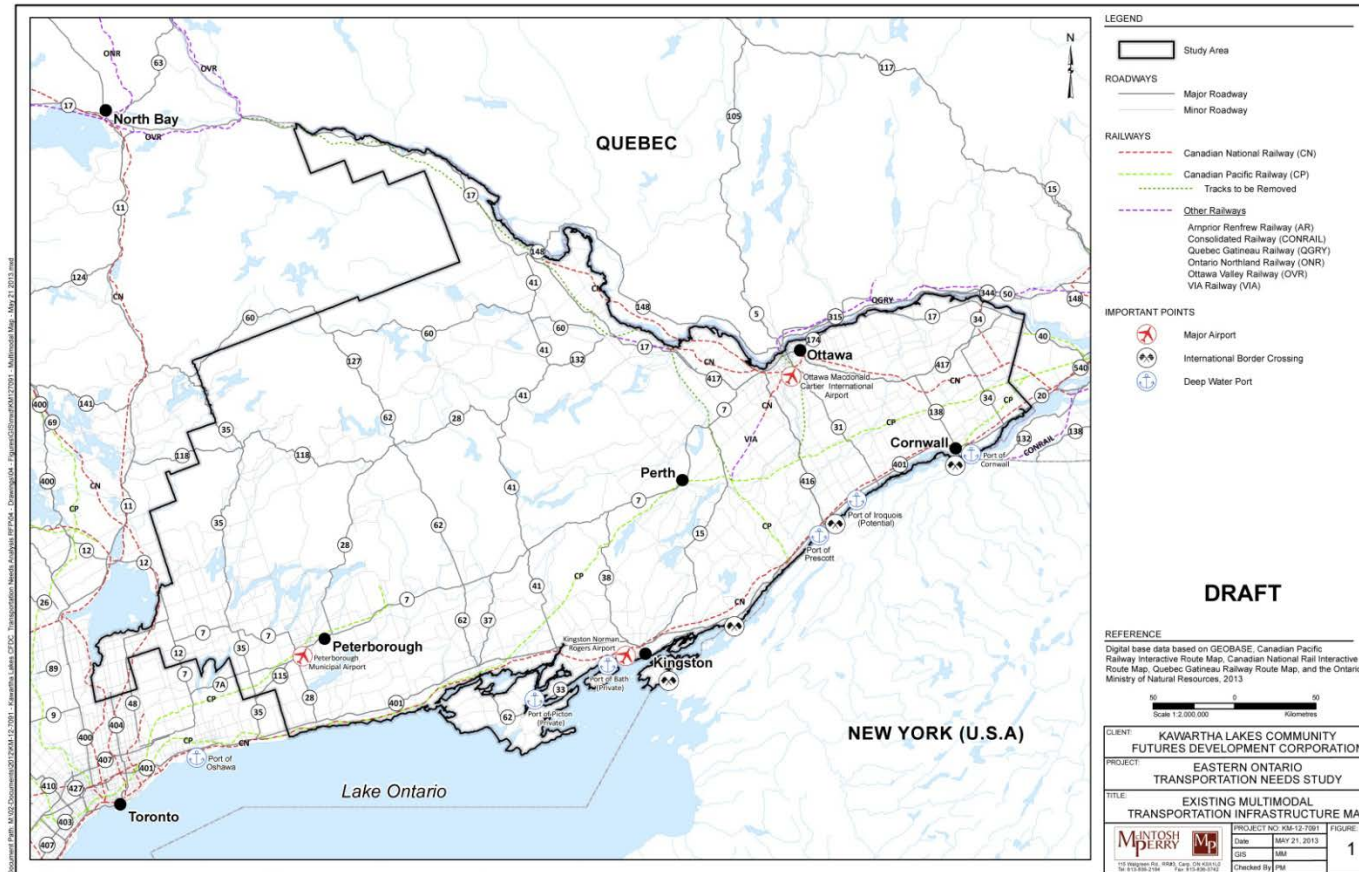
* Member of Ontario East Economic Development Commission Board of Directors



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Eastern Ontario



Process & Methodology

PHASE I January 2013 to March 2014

- > Comprehensive literature review; contributions from numerous sources
- > In-depth review of region's existing transportation infrastructure
- > Surveys, ThoughtStream process, data and quantitative input gathering
- > Potential projects selected ROI model (Investment, Economic/ GDP Impact, Immediacy)
- > 12 projects ranked based on aggregate economic impact and ROI

PHASE II December 2014 to March 2016

- > Detailing of now 14 projects (mode, magnitude, rationale, anticipated benefits)
- > Screening from 14 to 6 (savings, safety & environment, economic development, ROI)
- > Final assessment of Top 6 projects
- > Qualitative ranking of Top 6 projects



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Proposed Infrastructure Enhancements by Mode

- **Road** – repairs/expansion of existing roadways and numbers of lanes; facilities to encourage truck movements including long combination vehicles; ITS expansion/implementation
- **Rail** – construct, revive, upgrade and maintain existing rail corridor/crossings
- **Marine** – enhancing deep water port capacity
- **Air** – runway, customs and terminal improvements
- **Intermodal** – optimizing/expanding multi-modal infrastructure including connections between marine, rail and road; establishing a full intermodal facility



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Top Projects Selected (/12), Phase I

- Improving and Maintenance of Regional Road Network
- New or Revitalized Deep Water Port Facilities and Infrastructure
- Creation of a New Multimodal Transfer Station
- Upgrading and expanding cargo facilities at regional airports
- Highway 401 – Widening to Six Lanes
- Highway 7 – Widening to Four Lanes



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Corresponding/ Ongoing Activities

- EOMC and EOWC completed Eastern Ontario Economic Development Strategy, released in June 2014; (EODP supported)
- Strategy positioned “Enhanced Transportation Systems” as one of 3 Strategic Priorities for Eastern Ontario and included listing a number of activities related to EOTNA findings:
 - Intelligent Transportation Systems (ITS)
 - Intermodal infrastructure
 - Revitalizing Deep Water Port(s)
 - Regional Roads network/ Widening of Major Highways
 - Improvements to current Rail and Airport infrastructure



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Corresponding/ Ongoing Activities

- November 2014 “From Strategy to Action” implementation planning session takes place in Kingston, attended by all major economic development animators
- Enhanced Transportation Systems objective tabled and discussed; KLCFDC commits to continuing to move EOTNA research and activity forward—based on support from all groups involved and with EODP assistance secured
- KLCFDC in conjunction with EO CFDC Network partners and with previous EOTNA committee engaged, begins process to move research to Phase II
- KLCFDC secures further funding including commitments from other key EO Economic Development groups and commits to the development and implementation of Phase II; qualitative assessment of previous EOTNA findings/ projects



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THE MOVEMENT OF GOODS IS THE LIFEBLOOD OF EASTERN ONTARIO'S ECONOMY

EASTERN ONTARIO TRANSPORTATION INFRASTRUCTURE PROJECT ASSESSMENT



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Phase II Overview

- Qualitative screening and assessment exercise to help determine what are the most significant and attainable Transportation Infrastructure Projects that are needed to further industrial growth, economic development, and true value in terms of looking at both the benefits and the costs in improving how goods move across, in, and out of our region.
- Supported by a number of organizations across the region, including the Eastern Ontario Mayors' Committee, the Ontario East Economic Development Commission, the Eastern Ontario Wardens' Caucus and the Eastern Ontario Regional Network; in addition to the network of Eastern Ontario CFDCs and CFP RDA/funder, FedDev Ontario. Project again led by Kawartha Lakes CFDC.
- Phase II to establish a very short list (possibly as few as even 1 or 2 projects), which can then be presented as cases for consideration for support to the senior levels of government and to local Eastern Ontario counties, municipalities and cities, as well as other stakeholder groups and an expanding list of potential partners.



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Process & Methodology

PHASE II December 2014 to March 2016

- > Detailing of now 14 projects (mode, magnitude, rationale, anticipated benefits)
- > Screening from 14 to 6 (savings, safety & environment, economic development, ROI)
- > Final assessment of Top 6 projects
- > Qualitative ranking of Top 6 projects



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List of Projects

1. **Upgrading and Expanding Facilities for Cargo Shipments at Regional Airports**
2. **New or Revitalized Deep Water Port Facilities and Infrastructure**
3. **Expansion of Existing Intermodal Facility(s)**
4. **Creation of a New Multimodal Transfer Station**
5. **Upgrading and Maintaining Freight Rail Corridors**
6. **Upgrading Highway/Rail Grade Crossings**
7. **Improving and Maintenance of Regional Road Network**
8. **Highway 7 – Widening to Four Lanes**
9. **Highway 17 – Widening to Four Lanes**
10. **Highway 35 – Widening to Four Lanes**
11. **Highway 401 – Widening to Six Lanes**
12. **Highway 401 – Interchange Rehabilitation and Upgrade**
13. **ITS Implementation**
14. **Highway 404 – Extension from Green Lane to Beaverton**



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Project Detailing

2. Creation or Revitalization of Deep Water Port Facilities and Infrastructure

Details	Proposed Project(s)	
<p>Mode Marine</p> <p>Location Existing facilities or new greenfield project (e.g. near Iroquois or Cornwall)</p> <p>Time Frame Unscheduled projects (except improvements to Port of Prescott/Johnstown)</p> <p>Proponents/Stakeholders Public-private partnership, involvement of all levels of government</p> <p>Magnitude (2013\$) \$230 million</p>	<p>Construction of new or revitalized deep water port facilities and infrastructure including intermodal rail-truck-marine container capabilities, distribution terminals, short sea shipping operations and ability to handle bulk cargo.</p>	
	Rationale	Potential Benefits/Risks
	<ul style="list-style-type: none"> Expands opportunities for movement of bulk, semi-processed, and containerized goods. Enhances regional value proposition in transportation and logistics in marine sector Supports construction, manufacturing, food processing, and energy sectors Supports intermodal infrastructure and multimodal hub development, including potential locations for Free Trade Zones Supports development and utilization of the Great Lakes St. Lawrence Seaway System Potential for positive impact on tourism (cruise) industry 	<ul style="list-style-type: none"> Increasing marine capacity and utilization has the potential to: <ul style="list-style-type: none"> Lower transport costs Alleviate congestion on the road and rail transportation networks, and at border crossings Reduce road wear and tear and maintenance costs Improve fuel efficiency and reduce air pollutant and GHG emissions Improve road and rail safety Potential for high infrastructure and related maintenance costs



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Project Detailing

4. Creation of a New Multimodal Transfer Station

Details	Proposed Project(s)	
<p>Mode Multimodal</p> <p>Locations Potential locations include Wesleyville, Smiths Falls, Bath region, Highways 115/35 area, etc.</p> <p>Time Frame Undetermined</p> <p>Proponents/Stakeholders Undetermined</p> <p>Magnitude (2013\$) \$350-\$500 million depending on capacity created</p>	<p>Creation of a new multimodal transfer station which could potentially include truck/ marine/ rail and possibly even air capacity. Possible locations include Wesleyville, Smiths Falls, Bath region, highways 115/35 area, etc.</p>	
	Rationale	Expected Benefits
	<ul style="list-style-type: none"> ▪ Potential to support all goods movement sectors, specifically moving across, in or out of the region ▪ Supports prioritized desire for development of intermodal transportation in the Region ▪ Expands potential to advance marine and rail goods movement, including the use of containers and movement of bulk materials ▪ Supports market access for local businesses and encourages value added logistics opportunities in Eastern Ontario 	<ul style="list-style-type: none"> ▪ Lower transport costs resulting from improved efficiency and reliability of the supply chain ▪ Increased competitiveness of businesses in the region which rely on goods exports, imports and where transportation costs are a significant share of costs ▪ Improved access to market and attracting businesses which rely on goods movement



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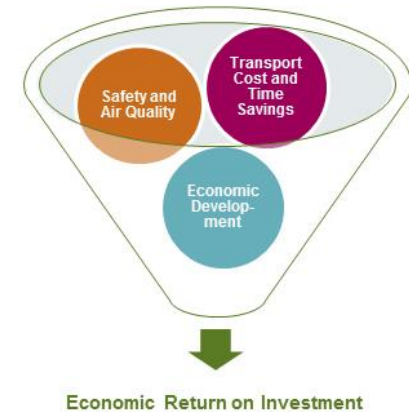
Project Criteria

Rating scale for all criteria : 1 *low* – 5 *high*

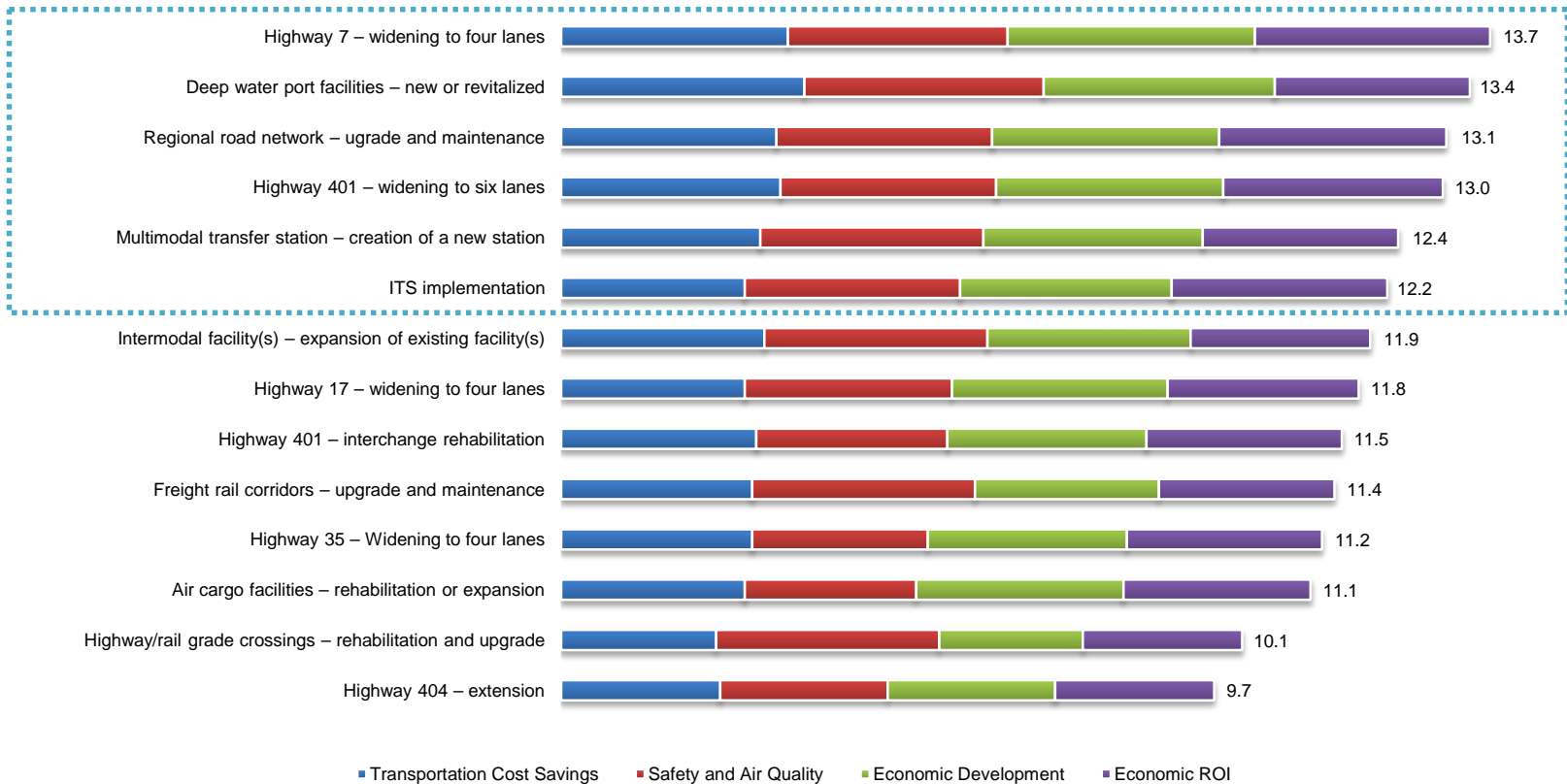
- **Transportation cost savings and time savings**
 - Fewer vehicle miles travelled, less traffic delays and greater delivery schedule reliability, all of which can reduce labour costs, fuel and vehicle maintenance costs, as well as supply chain costs
- **Safety and air quality**
 - Fewer collisions causing property damage, injuries, or fatalities, and less air pollution and GHG emissions from reduced fuel consumption
- **Economic development**
 - Better access to end markets and to cost-effective supplies for Eastern Ontario businesses, which would attract additional trade and investment to the region



- **Economic return on investment (ROI) for Eastern Ontario**
 - Potential for the project improve overall well-being for Eastern Ontario (not only financial returns) after considering the above benefits as well the capital and operating costs required



Aggregated Results of the First-Stage Screening



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Determining Project Value

Overall project value criteria should capture the following considerations over the new asset life:

Benefits

- Transport cost and time savings
- Safety impacts
- GHG/Air quality
- Economic development

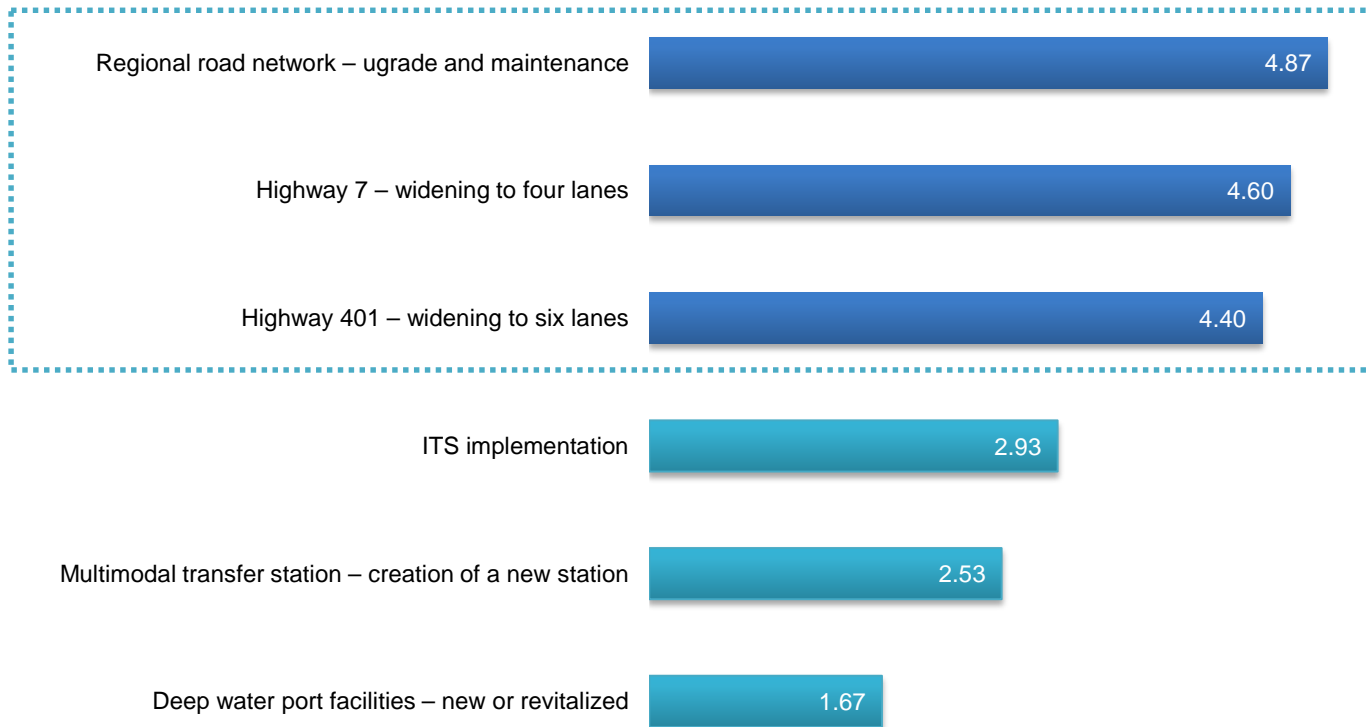
Costs

- Project capital costs
- Additional operating and maintenance costs during asset life
- Adverse impacts (e.g. safety)

In practice

- Does value of benefits exceed costs over project life?
- Benefit-cost ratios:
 - 1.5 = \$0.50 value created for \$1 invested
 - 1.0 = breakeven
 - 0.5 = \$0.50 loss for each dollar invested

Results of Second-Stage Screening



Results of Project Ranking

Rank	Project	Score	1	2	3	4	5	6
1	Regional road network – upgrade and maintenance	4.87	4	6	4	1	0	0
2	Highway 7 – widening to four lanes	4.60	6	3	2	2	2	0
3	Highway 401 – widening to six lanes	4.40	5	2	4	3	0	1
4	ITS implementation	2.93	0	1	3	6	4	1
5	Multimodal transfer station – creation of a new station	2.53	0	1	2	3	7	2
6	Deep water port facilities – new or revitalized	1.67	0	2	0	0	2	11

Note: The scores were calculated by multiplying the number of votes by the inverse of project rank (i.e. 6 for most promising project and 1 for least promising) and dividing by the total number of votes.

Top Projects Selected Phase I and II

- Improving and Maintenance of Regional Road Network ✓
- New or Revitalized Deep Water Port Facilities and Infrastructure ✓
- Creation of a New Multimodal Transfer Station ✓
- ITS Implementation *
- Highway 401 – Widening to Six Lanes ✓
- Highway 7 – Widening to Four Lanes ✓



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Next Steps

1. Initiative/ hold meetings with senior levels of government, establish best processes to move forward with recommended projects
2. Secure support, as needed, to develop elements for and ultimately the execution of business case(s)
3. Complete Business case(s)
4. Present findings, secure support for infrastructure project work
5. Undertake remaining steps by which infrastructure improvements can get underway



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Project Partners



**Eastern Ontario
Mayors' Committee**



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