Growing the Great Lakes Seaway System
Our Common "4th Coast"

Richard Corfe
President and CEO
The St. Lawrence Seaway
Management Corporation

Collister Johnson Jr.
Administrator
Saint Lawrence Seaway
Development Corporation

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Growing the Great Lakes Seaway System Outline

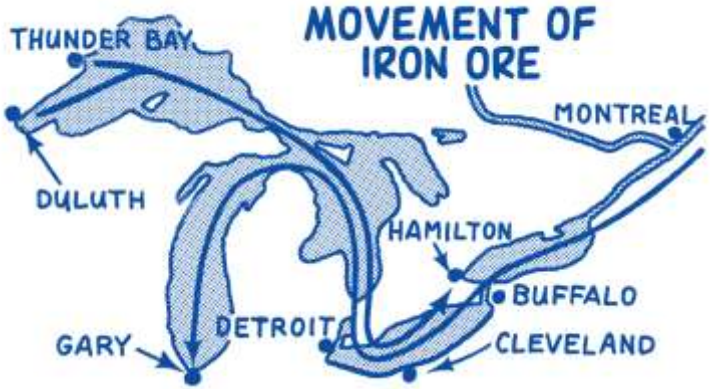
1. Who we are
2. How we operate
3. Where we are going
4. Challenges and opportunities

1. Who We Are

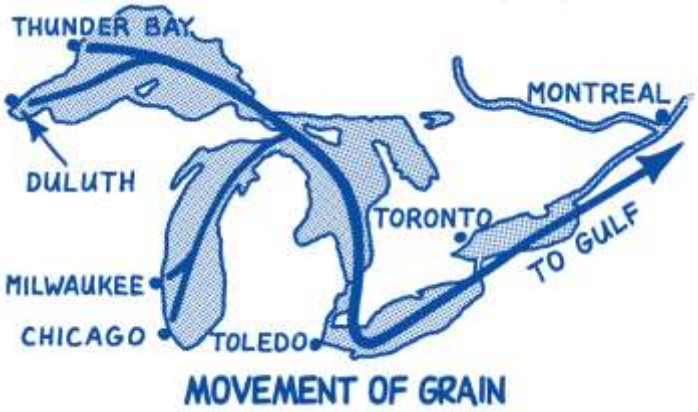
- The Great Lakes Seaway System, a bi-national gateway to the heartland of North America
- 3,700 km marine highway
- serves a region that is:
  - home to 100 million people
  - 26% of US industry
  - 60% of Canadian industry

The Seaway Story

- The Seaway was built to transport bulk cargoes – grain westbound for export and iron ore eastbound for steel mills



- Since 1959, the Seaway has moved over 2.5 billion tonnes of cargo valued at over $375 billion

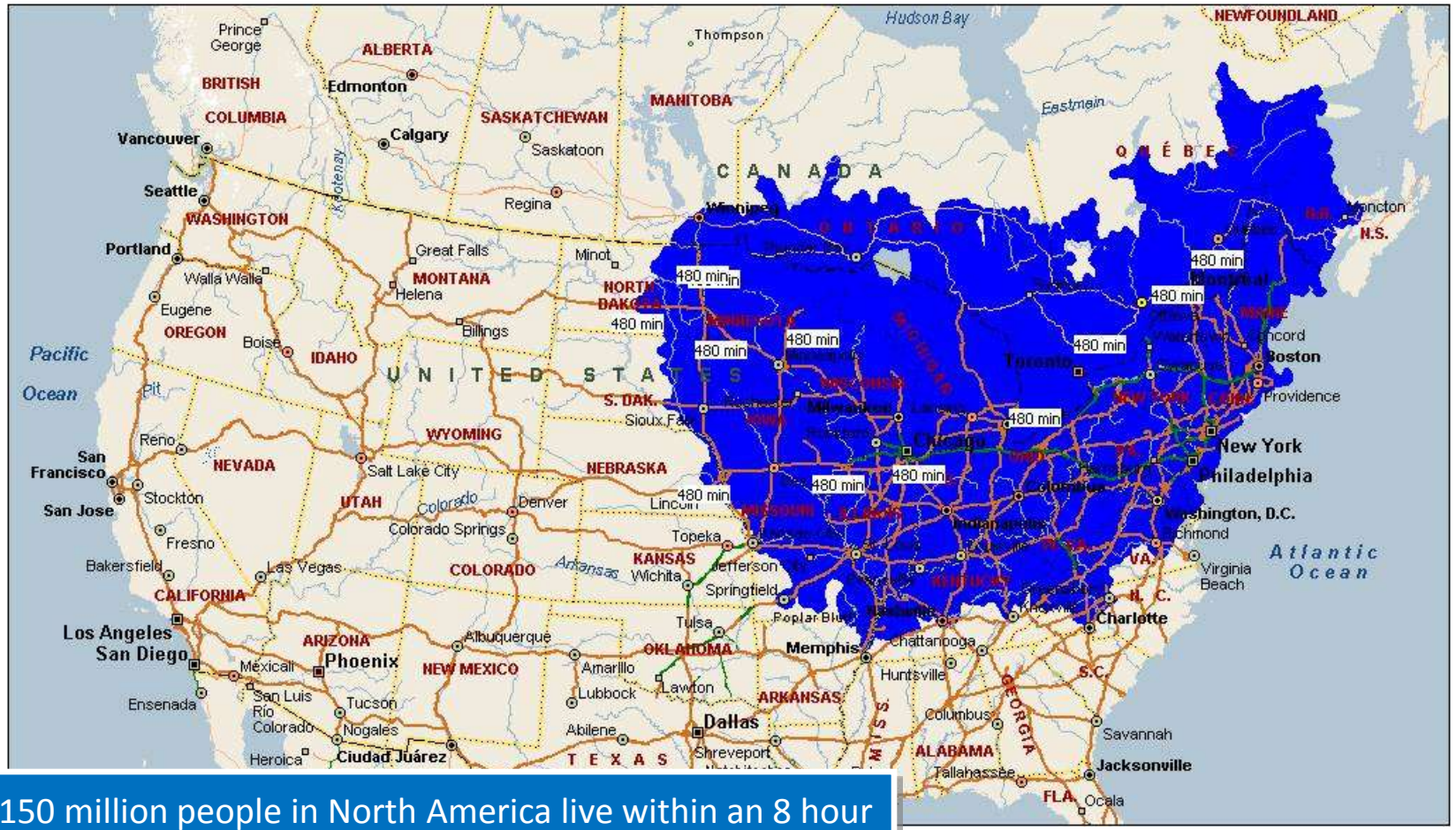


HWY GO H_2O

Seaway + GL Ports = Hwy H_2O

HWY GO H_2O

Strategic Location



Over 150 million people in North America live within an 8 hour drive of a major port on the Great Lakes Seaway System

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Connectivity

- More than 40 provincial and interstate ***highways*** and nearly 30 ***rail lines*** link the ports of the System with consumers, products and industries all over North America

2. How We Operate

Lock Dimensions

Length = 233.5m

Width = 24.4m

Depth = 9.1m

Max Vessel Size

Length = 225.5 m

Beam = 23.7 m

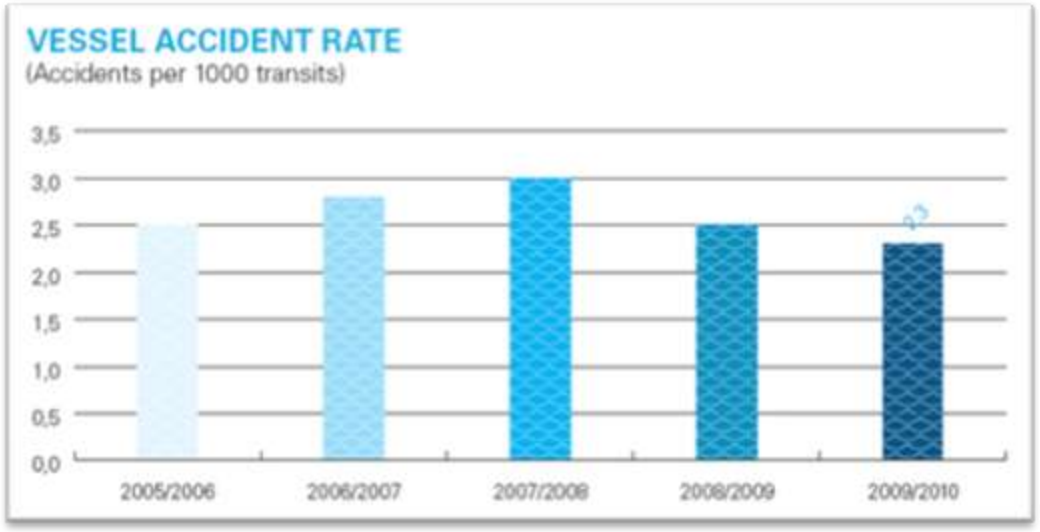
Draft = 8.08 m

Seamless Operation

- Common rules and regulations for system use
- Vessel inspections and clearance done once for all agencies
- Operations and Traffic Control Centers linked to satellite based AIS navigation provide a highly secure operating environment

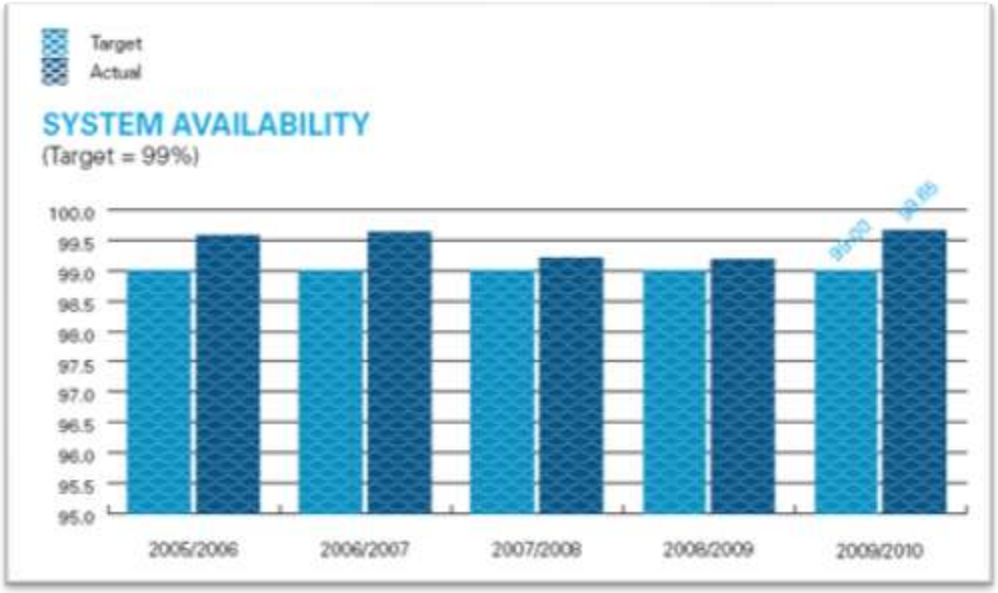
Safe and Secure

- ISPS Code governs security approach
- 220+ cameras overseeing operations and installations
- Only 12 vessel incidents in 2009 (over 3,631 transits)



Reliable and Efficient

- St. Lawrence Seaway has a consistent record of 99%+ system availability
- Customer expectations on transit times, delays are routinely met
- Infrastructure upkeep assured through Asset Renewal funding from both Corporations



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Engaged with Our Communities

- Emergency planning exercises carried out jointly with government agencies and community interests to ensure preparedness
- Joint Observational Study concluded with Mohawks of Akwesasne on Ice breaking
- Use of water resource to generate green power
- Lessee environmental compliance verification program to ensure good stewardship of lands

Making the Most of Our System

Draft Optimization Tool (DOT)

- Software that integrates information and provides a projection of a vessel's under-keel clearance in real-time
- Relies on a real-time water level gauge network along the vessel's route
- Monitor's vessel's position and speed in real-time via AIS
- Calculates squat equations to approximate the squat of the given ship-type in the existing navigation environment
- Provides a visual representation to the captain / pilot

Draft Optimization

Red zones identify draft issues at current speed / squat

Draft Optimization

Once vessel decreases its speed, the draft profile is repainted “all clear”

3. Where We Are Going

New influx of cargo to the East Coast is projected as a result of both the Panama Canal expansion (China) and burgeoning trade with India

21st Century Business Opportunities

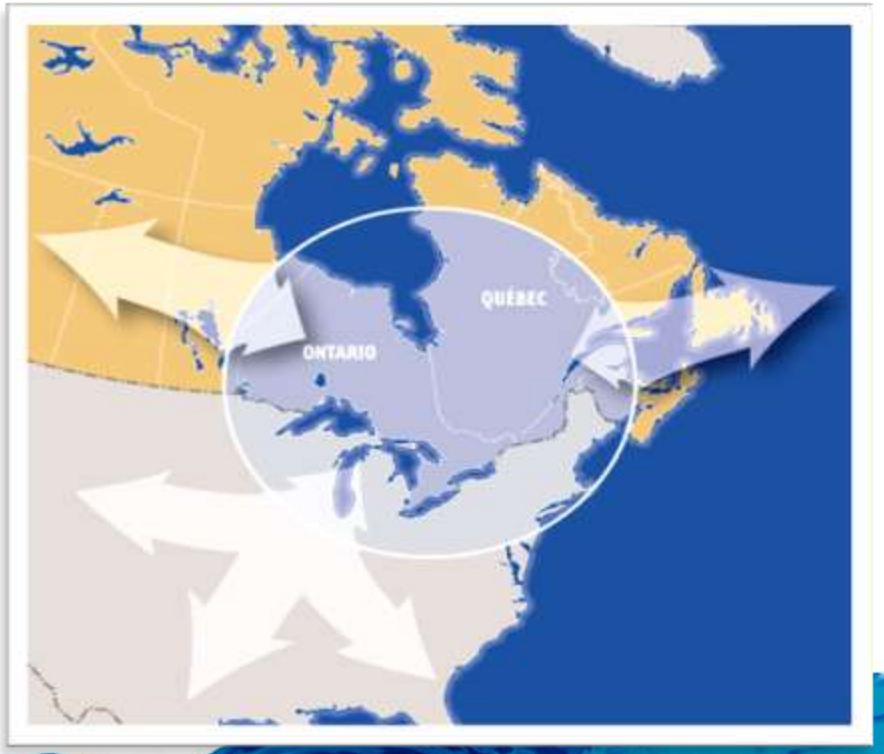
- Bulk cargo in evolving market
- General cargo, and break-bulk cargo
- Project cargo, such as wind turbines and heavy machinery
- Feeder services from coast and river ports into the lakes
- Inter-lake ‘short sea’ services

Focus on our Customers

Continental Gateway and Trade Corridor

- 71% of Canada's international trade flows via the 4 modes of transportation within this gateway

- Seaway is currently running at 50% capacity, and represents a reliable means of moving cargo between coastal ports and points inland

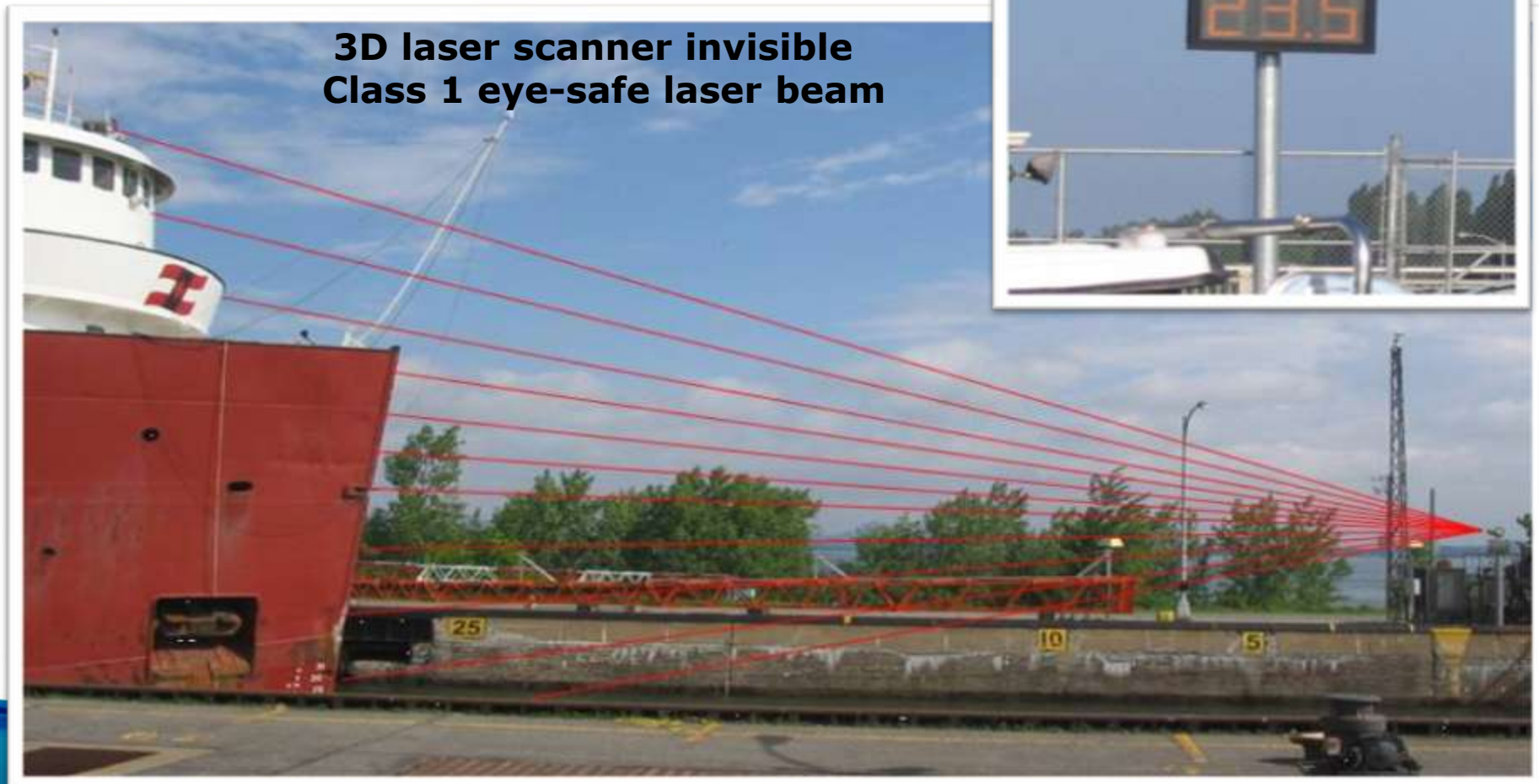


HWY GO H_2O

Service Customization

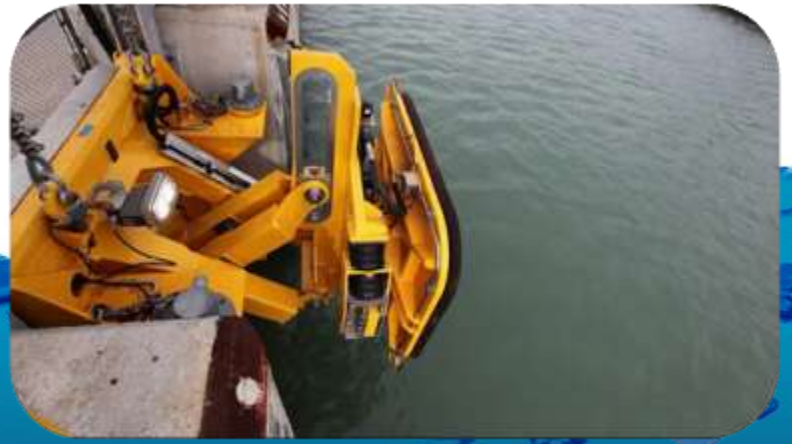
- Meeting the requirements of different market segments through customized service offerings –
  - Customized lockage procedures
  - Customized vessel speed / draft
- Removal of barriers to system use through the application of technology

Self Spotting



Hands Free Mooring

- Hands Free Mooring Program
  - Attract more vessels in order to diversify our cargo base
  - Reduce barriers to system by lowering crewing requirements for lock transits / minimize overtime
  - Enhance crew safety and productivity



4. Challenges and Opportunities

Opportunities

- Available Capacity
- Strategic location
- Connectivity:
  - Road and Rail
  - Access to Major Gateway Partners
- Competitive with Road & Rail on Certain Routes

Use of Marine Highway

- Enables Freight to Bypass Critical Chokepoints
  ("We Do Borders Well")
- Potential to Absorb Cargo Traffic, Especially from Truck
- Immediate Potential to Reduce Energy Consumption
- Safety

Dealing with Regulatory Barriers

- 25% Duty on Imported Vessels Impedes Fleet Renewal
- Harbor Maintenance Tax
- Emission Control Areas
- Consistent Regulations Governing Ballast Water Management
- Review of Pilotage Regulations and Marine Service Fees

Ballast Water Management

- Joint Seaway Regulations require ballast water exchange and salt water flushing for all vessels entering our waters
- Ballast Water Working Group establishes inspection protocol and 100% of ballast water tanks are inspected for ocean going ships
- 100% of all ballast water discharged into the Seaway / Great Lakes complies with the standards

No New Waterborne Invasive Species

- GLANSIS (Great Lakes Aquatic Non-indigenous Species Information System) indicates that since 2006, no new invasive species has been determined to have been established in the Great Lakes
- Early sign that current measures are performing well
- Both Seaways are actively supporting the development of new ballast water treatment systems

GLANSIS Website: http://www.glerl.noaa.gov/

Ballast Water Regulation in 2010

- **Fragmentation is current state of affairs**
- **State by State "Permits"**
  - Multiplication of paperwork requirements
  - Zero enhancement to prevention
  - Impairs the potential of marine transportation
- **No single standard**
  - Moving target for technology developers
  - Impairs production and installation of new technology

Increased Stakeholder Engagement

- Raise awareness
  - Of the marine mode, in general
  - Of Hwy$H_2$0, in particular
  - Of improvements via Green Marine
- Through Marine Delivers

Strategic Objectives:

- Improve / shape industry image
- Promote greater industry collaboration / coordination
- Share industry data / research
- Improve media coverage of industry and issues
- Better working relationships with NGO community
- More thoughtful future regulations

Key Messages:

Economic Impact	Sustainability	Continuous Improvement
• Jobs • Spending • Taxes • Trade	• Low carbon footprint • Fuel efficiency • Safety	• Vessels • Ports • Seaway

Public Relations:

MEDIA	SPEAKING	OUTREACH
• Pitching stories • Correcting misinformation • Editorial roundtables	• Chambers of Commerce • Port events • Capital days	• NGOs • Opinion leaders • Marine stakeholders

Research:

	GL/SL Impact Study	GL Multi-modal Impact Study
Commissioned by:	US & Cdn Seaways, Transport Canada, AGLP, CMC	National Academies of Science Transportation Research Board
Scope:	Impact of GL/SL marine transportation in Canada and US	Impact of mutli-modal transportation system in GL basin
Budget:	US$485,000	US$300,000
Contractor:	John Martin & Assoc. (Aug 2010)	CPCS Transcom (July 2010)
Completion:	9 months (May 2011)	16 months (Mar 2012)
Project oversight:	SLSMC, SLSDC, AGLP, CMC, TC	TRB Panel includes CMC & AGLP

Growing the Great Lakes Seaway System

Sustainability

- Foster Positive Economic, Social, and Environmental Conditions

Adaptability

- Leverage Technology to Maximize Benefits of Using our Existing Structures

Greater Accessibility

- Remove Barriers to Encourage New Uses