



Green Marine:

Implementing a Voluntary Environmental Program for the Marine Industry

GATINEAU, QC

June 1st, 2011

What is Green Marine?

- Voluntary marine industry environmental program
- Unique program designed for the marine industry – nothing like it in the world
- Addresses multiple environmental impacts and issues: land, air and water
- Participating companies implement concrete actions, practices and technologies



Objectives

1. Reduce environmental footprint and risk
2. Exceed regulatory compliance
3. Continuously improve environmental performance of marine industry



National program with regional focus



Program tailored to address different environmental issues and specific industry needs



Program Participants

- Currently 54 companies participating:
 - Shipping Companies
 - Ports / Seaway
 - Terminals
- Represent significant portion of shipping activity in Great Lakes / St. Lawrence region
- Recent membership expansion to West coast and East coast



Membership



PARTICIPANTS	54
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PARTNERS	35
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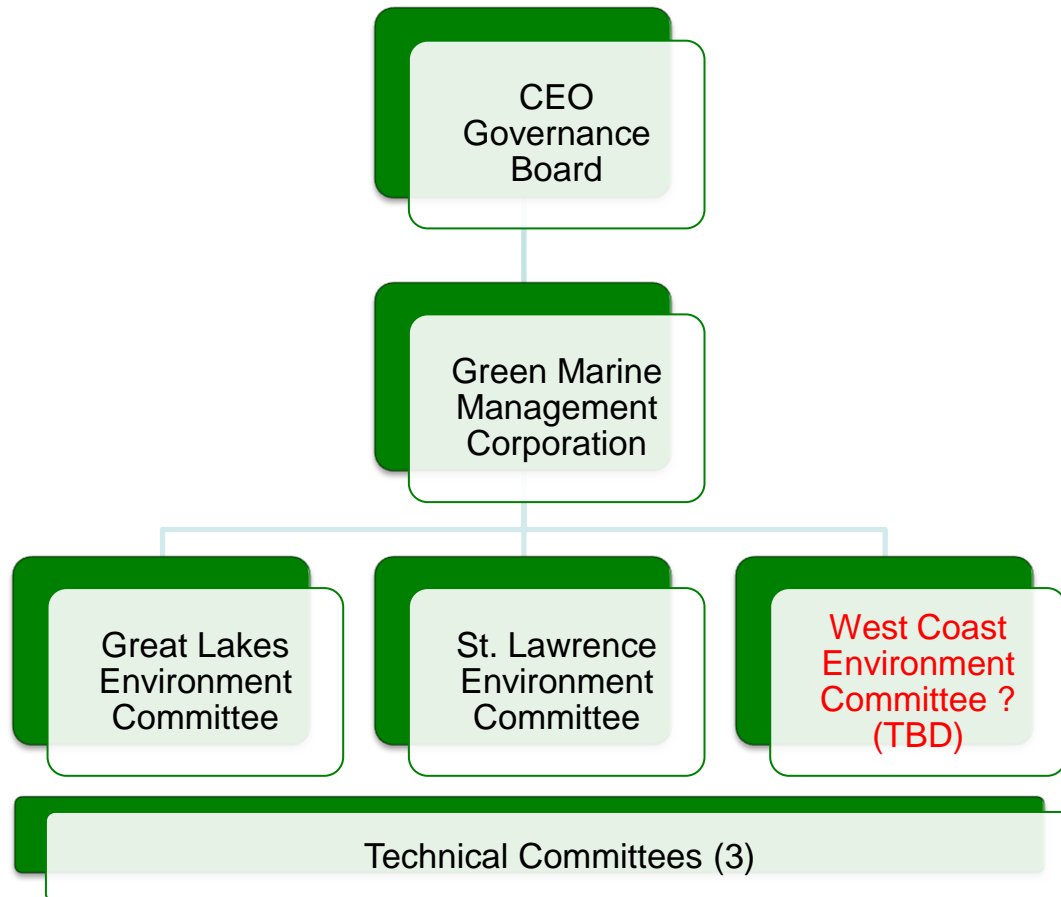


SUPPORTERS	34
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Total of 123 members



Governance & Management



GOVERNANCE BOARD:

- Participants (CEOs only)

GREEN MARINE MANAGEMENT CORPORATION:

- 11 associations, Secretariat

ENVIRONMENT COMMITTEES:

- 50% participants (Env. Manager)
- 50% stakeholders

TECHNICAL COMMITTEES:

- Participants (technical level)

Issues currently addressed

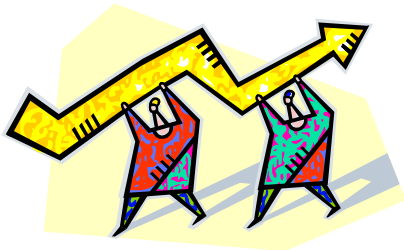
Shipping Companies

- Invasive species
- GHG emissions
- SOx/PM and NOx
- Cargo residues
- Oily water

Ports and Terminals

- GHG emissions
- Cargo residues
- Conflicts of use – dust, noise, light, odours
- Environmental leadership (Port Authorities)

Performance Indicators



LEVELS	CRITERIA
1	Regulatory compliance
2	Systematic use of best practices
3	Integrated management system & quantification of environmental impacts
4	Introduction of new technologies
5	Excellence and leadership

GHG Performance Indicator

LEVELS	CRITERIA
1	Regulatory compliance
2	<ul style="list-style-type: none">➤ Systematic control policy for documenting fuel➤ Optimize voyage routes, stability and loading of ships➤ Reduce speed➤ Preventive maintenance of engines
3	<ul style="list-style-type: none">➤ Annual GHG emissions inventory➤ Energy performance plan that has quantifiable objectives
4	<ul style="list-style-type: none">➤ Average annual reduction of 1 percent of GHG emissions per ton-kilometre
5	<ul style="list-style-type: none">➤ Average annual reduction of 1.5 percent of GHG emissions per ton-kilometre



Credibility & Transparency

Summary of the Evaluation 7

Environmental Issues	Level reached
1) AQUATIC INVASIVE SPECIES	<input type="text"/>
2A) POLLUTANT AIR EMISSIONS (SO ₂)	<input type="text"/>
2B) POLLUTANT AIR EMISSIONS (NO _x)	<input type="text"/>
3) GREENHOUSE GASES	<input type="text"/>
4) CARGO RESIDUES	<input type="text"/>
5) OILY WATERS	<input type="text"/>

This confirms that the information contained in the Summary of the Evaluation matches the levels that the company has obtained for the following environmental issues covered by the Environmental Program of the St. Lawrence and Great Lakes Marine Industry.

Signed on (date)

Name of the company

Signed by the President of the Green Marine Participant Company

Please complete the Summary of the Evaluation and return it to the Green Marine secretariat to:
271 de l'Estuaire, Quebec, QC, CANADA G1K 6S8 or fax it to: (418) 648-4627.

- Program requirements available on website
- CEO sign-off on performance self-assessments
- Independent verification of results
- Public disclosure of individual company results



Green Marine Annual Conference & Certification Awards



- Conference on environmental technologies and practices
- Green Marine CEO annual meeting



Results

GLOBAL AVERAGE RESULTS ATTAINED BY ALL GREEN MARINE PARTICIPANTS (RESULTS BASED ON A SCALE OF LEVEL 1 TO LEVEL 5)

	2008	2009	2010	2010 Including New Participants
Global Average	2.0	2.5	2.9	2.7
Shipowners	2.5	2.9	3.2	2.9
Ports, Seaway, Terminals & Shipyards	1.8	2.4	2.6	2.6



Results 2010

SHIPOWNERS – RESULTS BY ISSUE

	2008	2009	2010	2010 Including New Participants ¹
Invasive Species	2.6	2.7	2.9	2.8
SOX	3.0	3.7	3.9	3.6
NOX	2.1	2.6	2.6	2.5
GHG	2.5	2.9	3.2	2.9
Cargo Residues	2.1	3.1	3.5	3.3
Oily Water	2.0	2.7	2.9	2.6

PORTS AND TERMINALS – RESULTS BY ISSUE

	2008	2009	2010	2010 Including New Participants ¹
GHG	1.7	2.4	2.6	2.5
Cargo Residues	2.6	2.6	2.8	2.6
Conflicts of Use	1.8	2.5	2.6	2.6
Environmental Leadership	----	2.2	2.5	2.4



Supporters

Governments

- Environment Canada
- Fisheries and Oceans Canada
- Ministère des Transports du Québec
- Ministère du Développement durable, de l'Environnement et des Parcs du Québec
- Ministère des Ressources naturelles et de la Faune du Québec
- Ontario Ministry of Transportation
- Transport Canada

Environmental Groups

- Ducks Unlimited Canada
- Great Lakes United
- Les Amis de la vallée du Saint-Laurent
- Nature Québec
- Stratégies Saint-Laurent

Latest organizations to join:

- **WORLD WILDLIFE FUND CANADA**
- **GREAT LAKES – ST. LAWRENCE CITIES INITIATIVE**



Benefits of joining Green Marine?

- Program can be a tool to **strengthen your company's environmental performance**;
- Demonstrate and **communicate your environmental values** and commitment to your clients, suppliers and other stakeholders;
- Gain national and international **recognition** and visibility for your efforts;
- Be a part of a marine community whose members **share information** and help one another to improve;
- Play an **active role in the program's development** and decision-making processes along with the CEOs and Presidents of the program's participant companies;
- Benefit from the **support** provided by Green Marine Secretariat to help your organization implement the environmental program and communication tools.



Outlook 2011-2012

PROGRAM UPDATE AND EXPANSION

- Implement new performance indicator for ports, Seaway, terminals and shipyards (**Water and Land Pollution Prevention**)
- Develop an indicator on **Waste Management** for shipowners
- Adapt program to **changing regulation** (air emissions, ballast water)
- Develop specific requirements for **shipyards**



Green Marine Information



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