



# Green Marine:

A Voluntary Environmental Program  
for the Marine Industry



*May 2013*

# Introductions

- **Ray Johnston** – President  
Green Marine Management Corp.
- **David Bolduc** – Executive Director  
Green Marine Management Corp.
- **Brian Lynch** – VP Planning & Development  
Port of Cleveland

# Outline

- Background
- Membership
- Environmental Program
- Views from a Green Marine Participant
- Program Recognition
- Governance & Management
- Role for AAPA
- Questions

# Growing number of sustainability initiatives, “beyond-compliance” rating schemes and “green” incentive programs



**ECO**PORTS



# Green Marine Environmental Program

Goal: reduce environmental footprint

**Green Marine is a voluntary, industry sustainability initiative for ship operators, ports, terminals, the Seaway and shipyards.**



Green Marine marked its 5-year anniversary in October 2012

# Why Green Marine???

**The most comprehensive environmental program for the marine industry that exists today:**

- ✓ Participants include widest range of marine stakeholders – shipowners, port authorities, terminal operators, shipyards
- ✓ Action plan currently addresses 9 key environmental issues
- ✓ Opportunity for NGO and governmental participation
- ✓ Certification scheme with independent verification
- ✓ Public reporting of individual company results



## What Green Marine is not...

- ...a communication campaign
- ...a lobbying organization
- ...a forum to debate government regulations or specific industry projects

# What Green Marine is...

- ✓ A **voluntary program** to reduce environmental footprint of marine operations by
  - exceeding regulatory compliance
  - promoting a culture of continuous improvement
- ✓ A **benchmarking** tool to measure performance
- ✓ A **partnership** initiative involving stakeholders



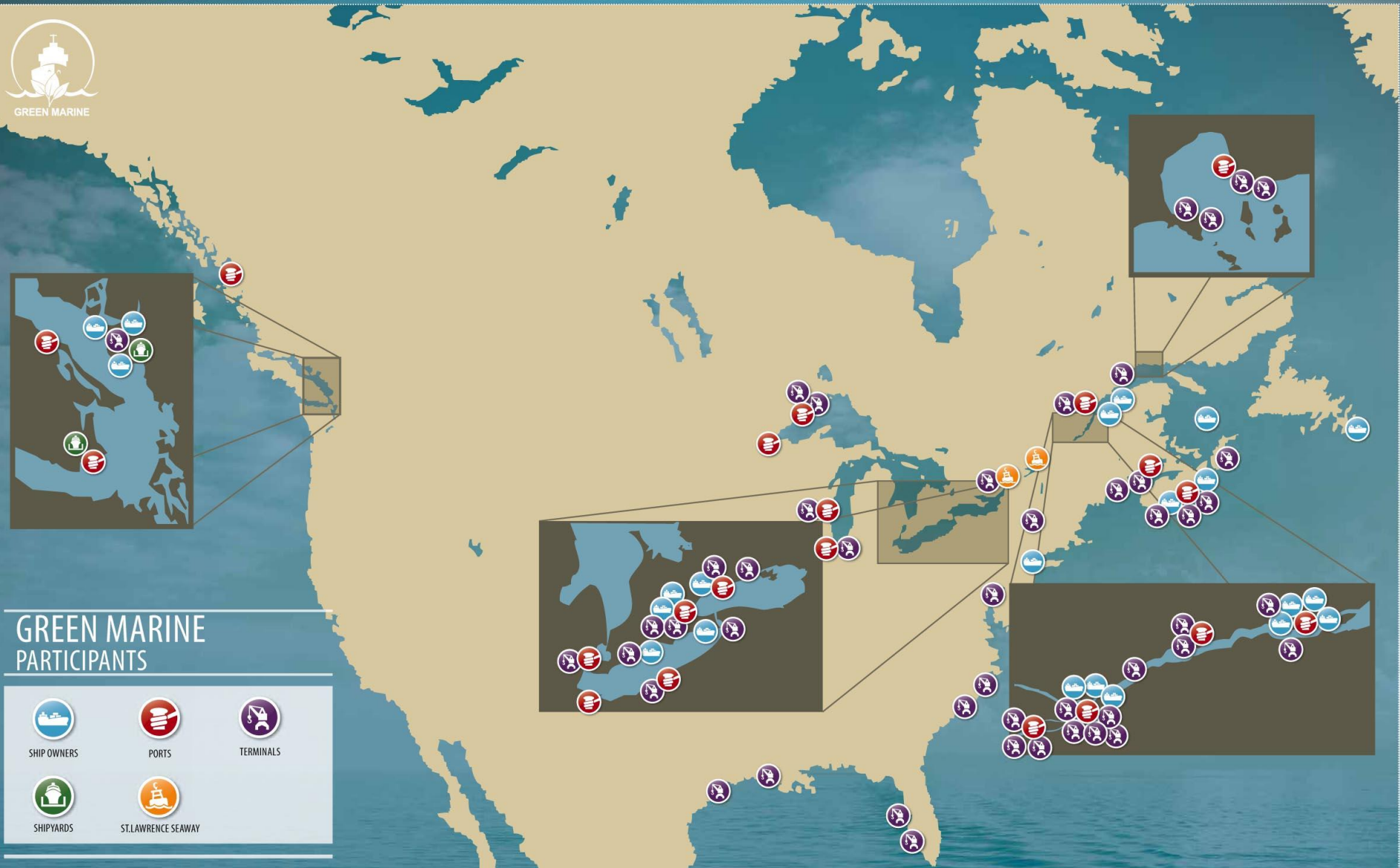
# Membership

# Growing Membership



	2009	2013
<b>Participants</b>	38	<b>74</b>
<b>Partners</b>	21	<b>58</b>
<b>Supporters</b>	24	<b>43</b>
	83	<b>175</b>

# Green Marine Participants across North America



# Port Members (21)



## **U.S. Great Lakes**

Cleveland-Cuyahoga County Port Authority

Duluth Seaway Port Authority

Illinois International Port District

Port of Milwaukee

## **U.S. West Coast**

Port of Seattle

## **Central Canada (Québec-Ontario)**

Hamilton Port Authority

Montreal Port Authority

Port of Valleyfield

Quebec Port Authority

Saguenay Port Authority

Sept-Îles Port Authority

Thunder Bay Port Authority

Toronto Port Authority

Trois-Rivières Port Authority

Windsor Port Authority

## **Canadian West Coast**

Greater Victoria Harbour Authority

Nanaimo Port Authority

Port Metro Vancouver

Prince Rupert Port Authority

## **Atlantic Canada**

Halifax Port Authority

Saint John Port Authority

# Terminal Members

There are 27 terminals and stevedoring companies participating in the Green Marine program, operating in more than 50 locations in the U.S. & Canada.



# Partners

Partners are suppliers of services, products, technology and/or equipment that offer environmental advantages or opportunities to help Green Marine participants improve their environmental performance.



Drew Marine





# Environmental Program

# Issues currently addressed

Environmental Issues for 2012	Cargo vessels	Tugs	Ports	Terminals	Shipyards
1. Aquatic invasive species	X		X		
2. Air emissions					
a) SOx and PM	X	X			
b) NOx	X	X			
3. Greenhouse gas (GHG's)	X	X	X	X	X
4. Cargo residues (bulk only)	X				
5. Oily water (Bilge water)	X				
6. Community impacts (dust, noise, light, odors)			X	X	X
7. Water and Land Pollution Prevention					
a) Prevention of spills and leakages			X	X	X
b) Dry bulk handling and storage				X	
8. Environmental leadership			X	optional	optional
9. Waste management	optional	optional			

# Concrete actions for ports & terminals



- Limit vehicle **engine idling**.
- Completion of an annual **report on GHG emissions**
- Adopt an **energy performance plan and a plan for reducing air pollutants**, which defines reduction measures and establishes reduction targets
- **Sampling of noise and / or emission of dust**
- Set up a **consultative committee which is open to citizens**
- Incorporate **environmental clauses in all new leases** and contracts with port tenants
- **Develop and implement a Spill Prevention Management Plan**
- Projects that provide **public access to shorelines**
- Projects that **restore natural habitats**
- Convert at least 50% of fleet of vehicles to more **environmentally friendly technologies** (bio-fuels, hybrids, etc.)
- Introduce **new technologies** designed to reduce the environmental footprint of port activities (shore power programs, development of renewable energy, etc.)

# Benchmarking Performance



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

# Evaluation & Certification Process

The Green Marine Environmental Program is made up of 4 basic steps:



## Evaluation Process

- Self-evaluation
- CEO sign-off
- Reporting



## External Verification

- Third party verification every two years



## Results Publication

- Individual company results
- Annual report & website



## Certification

- Certification awarded after verification
- Valid until next verification

# External Verification



Participants' results are subject to an external verification every two years.

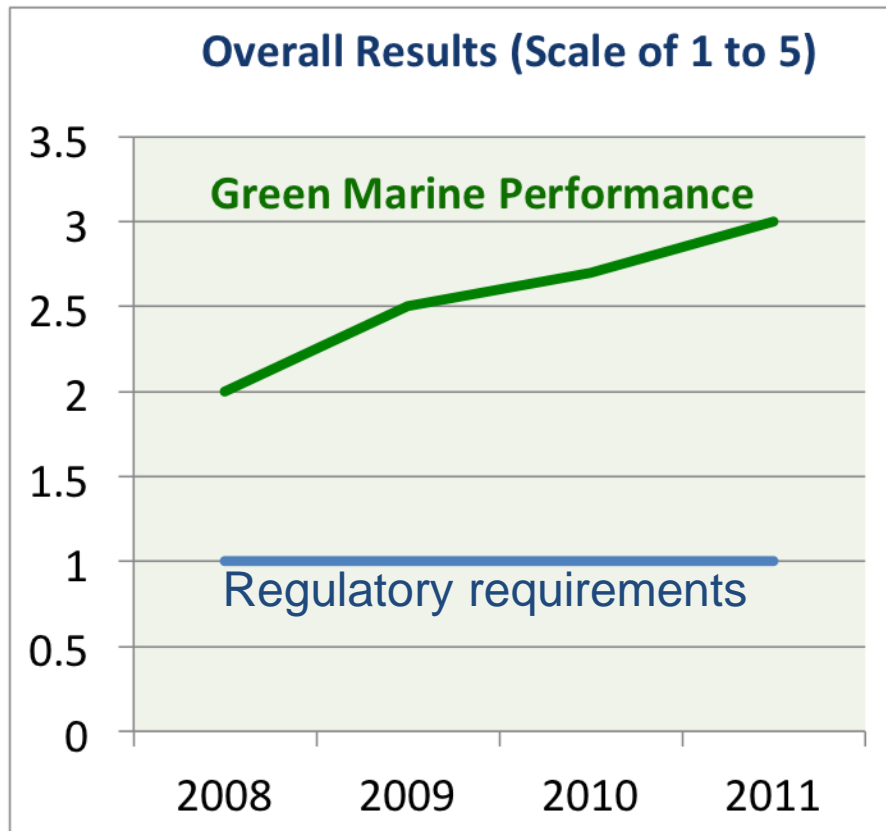
An independent third party, accredited by Green Marine, will visit their premises to verify the procedures and supporting evidence used to compile their results.

## Green Marine Accredited Verifiers:

1. Auditing Association of Canada (ON)
2. Envirochem Services Inc. (BC)
3. Environment SCN Inc. (QC)
4. International Maritime Environmental & Safety Associates Inc. (NH)
5. Raymond Chabot Grant Thornton (QC)
6. MGMT Alliances Inc. (BC)
7. R.C. Helland Consulting (OH)
8. Lloyds Register Quality Assurance (TX)
9. Canadian International Bureau of Shipping Ltd. (ON)
10. Det Norske Veritas AS (QC)



# Track record of improved results



- **Commitment**  
CEO sign-off on performance self-assessments
- **Credibility**  
Independent external verification of results every 2<sup>nd</sup> year
- **Transparency**  
Public disclosure of individual company results

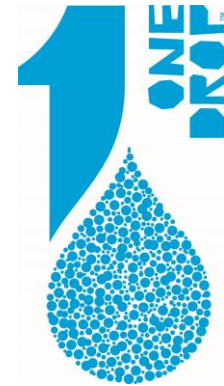


# **Views from a Green Marine Participant**



# Program Recognition

# Supporters



Transport  
Canada

Transports  
Canada

Great Lakes United



Transports  
Québec



Ducks Unlimited Canada  
Conserving Canada's Wetlands



Ontario

# Environmental groups, federal, provincial government, cities and municipalities endorse Green Marine



**"Green Marine is a very effective voluntary forum in which everyone is obviously committed to reducing their environmental footprint.**

**Now it's a question of by how much and how fast"**

*Gerald Butts, President World Wildlife Fund (Canada)*

*July 2010*

**"I acted on the assumption that it was the best possible program being done in good faith, but then asked the hard questions because GLSLCI doesn't endorse things willy-nilly"**

*David Ulrich, Executive Director, Great Lakes St. Lawrence Cities Initiative*

*GreenTech Conference - Chicago, IL., May 2011*



**"Green Marine is a great example of how industry can get together to help make our jobs as regulators easier."**

*Rear Admiral Michael J Parks, Commander USCG Ninth District*

*GreenTech Conference - Chicago, IL., May 2011*

# Memorandum of Cooperation



- ✓ Enhance industry environmental performance benchmarking;
- ✓ Support efforts to promote Green Marine goals and successes nationally;
- ✓ Support the development of accurate environmental data and environmental performance measurement standards



Transport  
Canada

Transports  
Canada

# Program recognition



**WINNER**  
**GREEN SHIPPING INITIATIVE OF THE YEAR**  
**Sustainable Shipping Awards 2011**

**AQTR**  
AU CŒUR DES TRANSPORTS

ASSOCIATION  
QUÉBÉCOISE  
DU TRANSPORT  
ET DES ROUTES

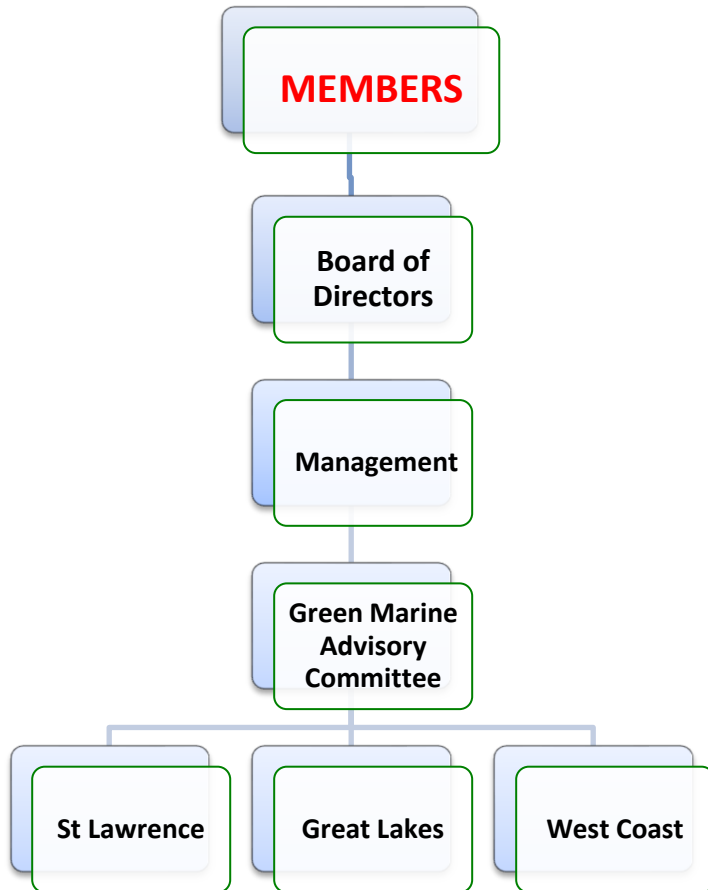


**Environment Award 2012**



# Governance & Management

# Governance & Management



## LEGAL ENTITY:

### **Green Marine Management Corp.**

- Not-for-profit corporation

## MEMBERS:

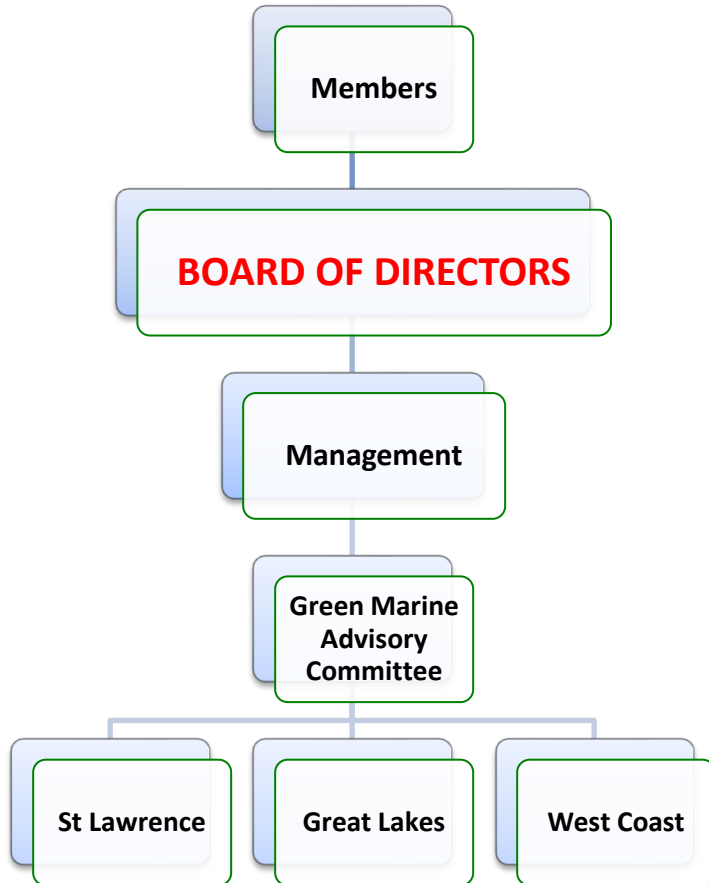
### **Class A – Voting Members**

- Participating Companies

### **Class B – Non-Voting Members**

- Associations

# Governance & Management



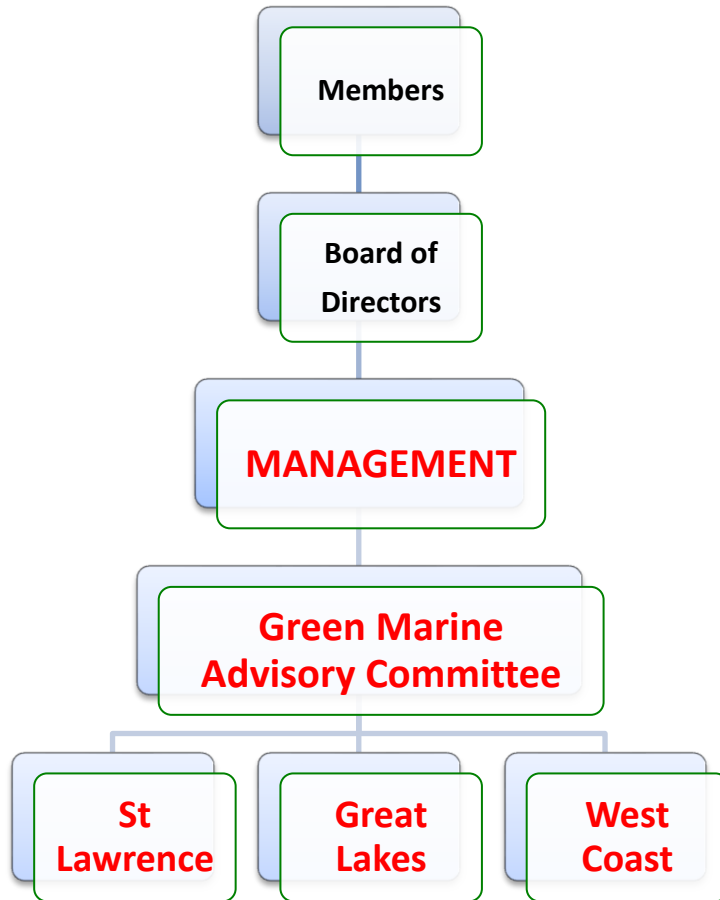
## BOARD OF DIRECTORS:

- Company Presidents representing different industry sectors and geographic regions of Participants
- Board consists of 9 directors
- Directors elected for 3-year terms

## BOARD COMMITTEES:

- Finance
- Certification & Verification

# Governance & Management



## MANAGEMENT:

- 3 full-time staff

## ADVISORY COMMITTEE:

- Regional
- Advisory role
- 50% participants (environmental managers)
- 50% stakeholders

## WORKING GROUPS:

- Technical expertise
- Participants (technical level)



# GREEN TECH 2013

**GREEN MARINE ANNUAL CONFERENCE**

GREEN TECHNOLOGIES AND INNOVATION  
FOR MARINE TRANSPORTATION

**MAY 29, 30 & 31, 2013**

AT THE HYATT REGENCY

Vancouver



For more information and to register:  
[www.green-marine.org/annual-conference](http://www.green-marine.org/annual-conference)

418 649-6004

[greentech@green-marine.org](mailto:greentech@green-marine.org)

# Thank You



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