



# GREEN MARINE BROADENS ITS FRONTIERS

2010-2011 Annual Report





# TABLE OF CONTENTS

MESSAGE FROM GREEN MARINE'S CO-CHAIRS	4
GREEN MARINE OVERVIEW	5
INTERNATIONAL RECOGNITION	8
GROWING MEMBERSHIP	9
2010-2011 MILESTONES	12
2010 RESULTS	14
INDUSTRY SUCCESS STORIES	17
AN INCLUSIVE ORGANIZATION	20
APPENDICES	
A) GMMC and Secretariat	22
B) Governance Board	23
C) Complete list of Green Marine members	24



## MESSAGE FROM THE CO-CHAIRS

As Green Marine marks its four-year anniversary, we are pleased to report the highlights of this past year which included broadening Green Marine's membership, achieving improved performance results and receiving international recognition of this marine industry environmental program.

Green Marine welcomed 36 new members in 2010/11 as participants, partners and supporters bringing the total membership to 130 companies and marine industry stakeholder organizations. Equally significant is the fact that Green Marine's membership has expanded well beyond the Great Lakes – St. Lawrence region and now extends from the Pacific to the Atlantic coasts making this a truly North American initiative.

The core mission of Green Marine is to encourage and assist companies in taking concrete actions to reduce their environmental footprint and protect the environment. Those shipping companies, ports, Seaway authorities and terminal operators participating in Green Marine are collectively registering performance ratings that exceed the requirements of regulatory standards for the protection of our vital water, air and land resources. Progress continued to be made in this last year as evidenced by the higher performance levels reported by participating companies for the third year in a row.

Green Marine was the proud recipient of the 2011 Sustainable Shipping Award for Green Shipping Initiative of the Year. This international award recognizes the important work that is going on worldwide to assist the marine industry in improving environmental efficiency.

We wish to recognize and offer our thanks to Green Marine's dedicated staff and the many individuals who have contributed their time and expertise to the committees that form the nucleus of the program. This unique collaboration of key stakeholders – industry, government, scientists, academics and the environmental community – must be commended for their contribution to making Green Marine successful.

The marine industry's commitment to sustainability is clear as Green Marine broadens its frontiers by expanding its presence coast-to-coast and strengthening the program to do more for the environment.

### GREEN MARINE'S CO-CHAIRS

#### GERRY CARTER

PRESIDENT, CANADA STEAMSHIP LINES

#### TERRY JOHNSON

ADMINISTRATOR, ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION

#### LAURENCE PATHY

CHAIRMAN, FEDNAV





# GREEN MARINE: AN INITIATIVE THAT GOES BEYOND REGULATORY COMPLIANCE

## GREEN MARINE OVERVIEW

Green Marine is a voluntary environmental program for the North American marine industry. Established in fall 2007, it aims to improve the industry's environmental performance beyond regulatory compliance by encouraging participants to apply best practices, set reduction targets and/or introduce new technologies to improve their record and reduce their environmental footprint. Participants include ports, ship owners, terminals, shipyards and St. Lawrence Seaway corporations.

### GREEN MARINE TARGETS SEVEN ENVIRONMENTAL ISSUES:

- Aquatic invasive species
- Greenhouse gases
- Air emissions: (SOx and NOx)
- Cargo residues
- Oily waters
- Conflicts of use - ports and terminals (noise, dust, odours and light pollution)
- Environmental leadership

The cornerstone of the Green Marine environmental program is its credibility and transparency.

## VERIFICATION AND PUBLICATION OF RESULTS

Although Green Marine is a voluntary program, the results reported by participating companies are subject to rigorous external verification every two years. This independent audit ensures the credibility of each participant's results. The external verification process, introduced for shipowners in 2009, was extended to ports and terminals in 2010. This means that every company that joined Green Marine as a participant before 2010 has undergone independent verification by Lloyds Register Quality Assurance. The results are published in the Green Marine annual report, on its website and in other publications.

## PROGRAM DEVELOPMENT

Green Marine's performance indicators were adapted to facilitate evaluation of international fleets, which enabled New York-headquartered TBS International to join the program. 2010 was also the first year in which shipyards were evaluated under the program's criteria with Vancouver-Based Seaspan Marine Corporation entering its ship repair and shipbuilding facilities located in Vancouver and Victoria in its evaluation process.

A new performance indicator addressing "water and land pollution prevention" for ports, terminals and shipyards will be introduced in 2011. Shipyard-specific criteria will be incorporated into the Green Marine program in the coming months, and a number of performance indicators for shipowners will be modified to reflect anticipated regulatory changes.



## CONCRETE IMPACTS

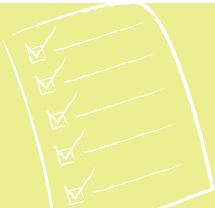
As a result of the Green Marine program, a significant number of ports and companies have taken concrete steps to improve their environmental performance without any regulatory obligation to do so. Here are just a few examples:

- 23 ports, terminals and maritime shipyards now impose limits on engine idling;
- 27 participating companies have completed an emissions inventory for GHG (SOx and NOx);
- 10 participating companies have either adopted an energy efficiency plan or reduced the intensity of their greenhouse gas emissions;
- 19 participating companies have attained an average result that is greater than level 3;
- Virtually all of Green Marine's ship owner participants (representing more than 500 ships of all types) have implemented practices to reduce the risk of discharging oil or cargo residues into waters;
- The majority of shipowners have not only implemented a range of preventive measures aimed at reducing the risk of introducing aquatic invasive species (AIS), they are also either already using (or are in the process of developing) tools for assessing the risk of AIS introductions based on the destinations of the ships in their fleet.

## EVALUATION AND CERTIFICATION PROCESS



FOR EACH OF THE APPLICABLE ENVIRONMENTAL ISSUES, THE PARTICIPANT EVALUATES ITS COMPANY'S PERFORMANCE ON A FIVE-POINT SCALE. TO DO SO, GREEN MARINE PROVIDES ITS MEMBERS WITH AN EASY-TO-USE SELF-EVALUATION GUIDE.



EACH YEAR BY APRIL 1, ALL PARTICIPANTS SUBMIT THEIR SELF-EVALUATION REPORT SIGNED BY THE COMPANY'S CEO TO THE GREEN MARINE SECRETARIAT.



ALL PARTICIPANTS ARE REQUIRED TO HAVE THEIR RESULTS VERIFIED BY AN INDEPENDENT THIRD PARTY EVERY TWO YEARS.



ALL PARTICIPANTS RECEIVE THEIR CERTIFICATE DURING THE CERTIFICATION CEREMONY HELD EACH YEAR AT GREEN MARINE'S ENVIRONMENTAL CONFERENCE.



THE GENERAL PUBLIC HAS ACCESS TO EVERY COMPANY'S RESULTS. THE COMPANY'S SELF-EVALUATION RESULTS ARE PUBLISHED IN GREEN MARINE'S ANNUAL REPORT, ON ITS WEBSITE AND IN OTHER PUBLICATIONS.

# INTERNATIONAL RECOGNITION



*"Gaining an increasing reputation for its credible, transparent work and for challenging participating companies to improve their environmental performance beyond regulatory compliance, the winner of this year's Green Shipping Initiative Award has the potential for global reach, leading the marine transportation industry to environmental excellence.*

## ***The award goes to ... Green Marine!"***

Green Marine's efforts were recognized internationally on July 7, 2011 when the environmental program received the prestigious Sustainable Shipping Award in the category "Green Shipping Initiative of the Year" at the Radisson Blu Hotel in London, England, before an audience of environmental and marine industry experts from around the globe. The award was created to bring attention to innovative efforts being made worldwide to improve the maritime industry's environmental sustainability.

Other 2011 nominees in this category included the Carbon War Room, DNV, Rightship and Royal Caribbean. The 2011 jury comprised representatives from transport and environmental organizations, including SustainableShipping.com, the International Chamber of Shipping, World Wildlife Fund (WWF), Maersk Line and Ikea UK.

*"Green Marine has grown quickly since its creation almost 4 years ago. This award confirms our environmental program's credibility and relevance. There is no doubt it will greatly broaden Green Marine's recognition and result, I hope, in many more enterprises joining our program."*

*- David Bolduc,  
Executive Director, Green Marine.*



# GROWING MEMBERSHIP



In the past year, Green Marine significantly strengthened its position as the marine industry's most important environmental initiative in North America by expanding the program beyond the St. Lawrence – Great Lakes region to include marine transportation companies operating or based in Canada or the United States.

Within just a few months, Green Marine welcomed 15 new participants from the West Coast, Atlantic Canada and the Great Lakes-St. Lawrence region, bringing the total number of participants to 55.

This expansion was accompanied by a higher profile and greater visibility, which translated into an increase in the number of partners and supporters. Many Canadian, US and European products and services suppliers joined Green Marine's ranks as partners. By July 2011, Green Marine had 127 members:<sup>1</sup> 55 participants, 36 partners and 36 supporters. With 36 new members, Green Marine membership posted its highest growth yet (up 40%), since its creation in 2007.

Broadening of Green Marine membership reflects the environmental program's credibility and will, no doubt, contribute to enhancing its effectiveness for leading the marine industry on the road the sustainable development.

<sup>1</sup> See Appendix C for a complete list of Green Marine participants, partners and supporters.

# GROWING MEMBERSHIP



## PARTICIPANTS

The Green Marine environmental program consists of Canadian and US companies active in the marine industry: domestic and international shipowners, ports and terminals, stevedoring companies, St. Lawrence Seaway corporations and shipyards.

### NEW MEMBERS:

- Atlantic Towing Limited
- Greater Victoria Harbour Authority
- Island Tug and Barge
- McAsphalt Marine Transportation Limited
- Mission Terminal
- Norcan
- Prince Rupert Port Authority
- Provmar
- Saint John Port Authority
- Seaspan Marine Corporation
- SMIT
- TBS International /Roymar Ship Management
- Valleytank
- Valport





**GREEN MARINE / ALLIANCE VERTE**  
PARTNER/PARTENAIRE



**GREEN MARINE / ALLIANCE VERTE**  
SUPPORTER/SUPPORTEUR

## PARTNERS

Green Marine partners are organizations with business ties to the marine industry – marine agents, shippers, suppliers, marine associations, R&D centres and others – all of whom actively promote the Green Marine environmental program to their clients. Partners may display the Green Marine logo, showing their commitment to the Green Marine initiative.

### NEW MEMBERS:

- Atlantic CAT
- Det Norske Veritas (DNV)
- DSS Marine
- Eniram
- Kongsberg Maritime
- KRAL
- Marine Care USA
- Quickload CEF
- Roche
- Seagulf Marine Industries Inc.
- Stelvio Inc. (ShipDecision)
- Vickers Oil

## SUPPORTERS

Green Marine also includes supporters: governments, municipalities and environmental groups that share the same goals of sustainability and, in some cases, offer services that promote a cleaner environment:

### NEW MEMBERS:

- City of Contrecoeur
- City of Montreal
- City of Montreal-Est
- City of Saint-Amable
- City of Varennes
- Great Lakes and St. Lawrence Cities Initiative
- Marguerite-d'Youville MRC
- SEDNA Foundation



# 2010-2011 M

## JUNE 2010

- Green Marine's environmental program is a finalist at the *2010 Sustainable Shipping Awards*.

## JULY 2010

- Second edition of Green Marine magazine.

## OCTOBER 2010

- Green Marine presents its environmental program to the Great Lakes Commission.
- The **Prince Rupert Port Authority** becomes the first West Coast participant to join Green Marine.

## NOVEMBER 2010

- Three other Upper Lakes Group subsidiaries join Green Marine's environmental program: **Mission Terminal, Provmar Fuels and McAsphalt Marine Transportation Limited.**
- Green Marine welcomes a new coordinator, Françoise Quintus.

## DECEMBER 2010

- Green Marine receives the official support of the **Great Lakes and St. Lawrence Cities Initiative.**
- Third edition of Green Marine magazine.

## JANUARY 2011

- Green Marine welcomes its first major US shipowner member: **TBS International/Roymar Ship Management.**

## FEBRUARY 2011

- Green Marine welcomes representatives of environmental groups, governments and teaching institutions as permanent members of the Great Lakes Environment Committee.



# MIILESTONES

## MARCH 2011

- **Seaspan Marine Corporation** joins Green Marine and becomes the first Green Marine participant to include shipyards in the environmental program.
- On the East Coast, Green Marine welcomes another new member: **Atlantic Towing Limited**.

## APRIL 2011

- Canada's largest petroleum products carrier, **Island Tug & Barge**, becomes a Green Marine member. **Norcan**, **Valport** and **Valleytank** also join the environmental program's ranks.
- 2010 self-evaluations are submitted and external verification is introduced for ports and terminals.

## MAY 2011

- To reflect its geographic expansion, the Green Marine Board of Directors welcomes two new members, representing the **Chamber of Shipping of British Columbia** and the **Council of Marine Carriers**.
- **SMIT Canada Inc.**, which provides harbour towage services for six ports in British Columbia, and the **Greater Victoria Harbour Authority** become Green Marine participants.
- Green Marine holds its fourth annual environmental conference, *GreenTech 2011*, in Chicago.
- Green Marine hires a new communications officer, Manon Lanthier.

## JUNE 2011

- The **Saint John Port Authority** represents the first East Coast port to join the Green Marine environmental program.

## JULY 2011

- Green Marine receives the prestigious international Green Shipping Initiative of the Year award at the 2011 Sustainable Shipping Awards in London.





# 2010 RESULTS: ONGOING IMPROVEMENT

This third year of evaluation provided strong evidence of the environmental program's effectiveness in motivating a large segment of the marine industry to take concrete action to protect the environment. The global average attained by participants continued its upward trend—from 2.0 in 2008 to 2.5 in 2009 to 2.9 in 2010 (Table 1). The steady increase in global averages over this three-year period clearly illustrates the positive effect that a voluntary program with clear performance goals can have.

Results for virtually all issues covered by the environmental program were up in 2010. The highest improvement rates were posted for management of cargo residues by shipowners and demonstration of environmental leadership by ports authorities.

To draw meaningful comparisons of participants' progress from 2008 to 2010, new participants were excluded from the main 2010 averages.<sup>2</sup> However, the fourth column of each table includes results from first-time-reporting participants and will allow us to use these numbers as a baseline next year to measure overall progress from 2010 to 2011.

**TABLE 1**  
Global Average results attained by Green Marine participants

Results based on a scale of 1 to 5

	2008	2009	2010	2010 (including new participants <sup>2</sup> )
<b>Global Average</b>	2.0	2.5	<b>2.9</b>	2.7
<b>Shipowners</b>	2.5	2.9	<b>3.2</b>	2.9
<b>Seaway, Ports, Terminals &amp; Shipyards</b>	1.8	2.4	<b>2.6</b>	2.5

<sup>2</sup> Green Marine rules do not require new participants to publish their self-evaluation results the first year they join the program. However, some of the new participants submitted a 2010 self-evaluation report to Green Marine and chose to publish their first-year results, which explains that 53 participants were evaluated.

**TABLE 2**  
Average levels attained by Shipowners

Results based on a scale of 1 to 5

	2008	2009	2010	2010 (including new participants <sup>2</sup> )
<b>Invasive Species</b>	2.6	2.7	<b>3.0</b>	2.8
<b>SOx Emissions</b>	3.0	3.7	<b>3.9</b>	3.6
<b>NOx Emissions</b>	2.1	2.6	<b>2.6</b>	2.5
<b>GHG Emissions</b>	2.5	2.9	<b>3.2</b>	2.9
<b>Cargo Residues</b>	2.1	3.1	<b>3.5</b>	3.3
<b>Oily Water</b>	2.0	2.7	<b>2.9</b>	2.6

**TABLE 3**  
Average levels attained by Ports, Terminals and Shipyards

Results based on a scale of 1 to 5

	2008	2009	2010	2010 (including new participants <sup>2</sup> )
<b>GHG Emissions</b>	1.7	2.4	<b>2.6</b>	2.5
<b>Cargo Residues</b>	2.6	2.6	<b>2.8</b>	2.6
<b>Conflicts of Use</b>	1.8	2.5	<b>2.7</b>	2.6
<b>Environmental Leadership</b>	----	2.2	<b>2.4</b>	2.4



# INDIVIDUAL RESULTS

SHIPOWNERS	Aquatic Invasive Species	Air Emissions (SOx)	Air Emissions (NOx)	Greenhouse Gases	Cargo Residues	Oily Water
Algoma Tankers	3	3	3	3	4	4
Atlantic Towing Limited*	2	5	2	2	na	2
C.T.M.A. Group	2	2	2	2	na	1
Canfornav Inc.	4	4	3	5	4	5
COGEMA	na	2	2	2	na	na
CSL Group Inc.	4	4	3	5	4	3
Fednav Limited	4	3	3	5	5	4
Groupe Desgagnés Inc. / Rigel Shipping Canada Inc.	3	5	3	5	4	4
Lower Lakes Towing	2	2	2	2	2	2
McAsphalt Marine Transportation Ltd.*	3	2	3	3	na	2
McKeil Marine Ltd.	3	5	3	2	2	2
Ocean Group Inc.	na	5	2	2	na	2
Oceanex Inc.	2	5	3	3	na	4
Provmar Fuels Inc.*	na	2	2	2	na	1
Reformar	na	5	2	3	na	2
Seaspan Marine Corporation*	na	5	2	2	na	2
Seaway Marine Transport	3	4	3	3	3	4
SMIT*	na	2	2	2	na	1
Société des Traversiers du Québec	na	5	3	3	na	1
TBS International / Roymar Ship Management Inc.*	2	2	2	2	2	3

\* = New participants to the Green Marine Environmental Program      na = not applicable

## PERFORMANCE INDICATORS

Level	Criteria
1	Compliance with applicable regulations and adherence to Green Marine's guiding principles
2	Systematic use of a defined number of best practices
3	Integration of best practices into an adopted management plan and quantifiable understanding of environmental impacts
4	Introduction of new technologies
5	Excellence and leadership

The term "na" (not applicable) appears in several places in the tables above and on the next page because of the high degree of operational diversity among Participants. The environmental issues covered by the Program do not necessarily apply to all Participants in the same way. For example, tug and ferry companies do not pump ballast water, container carriers do not have to treat their cargo residues and most ports do not have "conflict of use" issues if they are not located in an urban area.

The results published reflect Participants' performance with respect to the performance indicators contained in the Green Marine Environmental Program. Green Marine does not claim to provide an exhaustive evaluation of a given company's environmental performance.

Green Marine does not evaluate participants' regulatory compliance. Given that verification of regulatory compliance is a governmental responsibility, Green Marine grants Level 1 to each participant on a good faith basis. Each participant who joins the Green Marine program makes a commitment to comply with all relevant laws and regulations and to address any instances of non-compliance as expeditiously as possible.

# INDIVIDUAL RESULTS

PORTS	Greenhouse Gases	Cargo Residues	Conflicts of Use	Environmental Leadership
Bécancour Waterfront Industrial Park	2	na	na	2
Cleveland-Cuyahoga County Port Authority	2	na	na	3
Duluth Seaway Port Authority	2	2	2	2
Greater Victoria Harbour Authority*	2	na	4	2
Hamilton Port Authority	3	na	2	2
Illinois International Port District	3	na	3	3
Montreal Port Authority	4	4	5	5
Port of Milwaukee	2	na	2	2
Prince Rupert Port Authority*	2	na	2	2
Quebec Port Authority	2	na	2	2
Saguenay Port Authority	2	2	2	2
Sept-Îles Port Authority	3	na	3	3
Société du Port de Valleyfield	2	2	na	2
Thunder Bay Port Authority	1	na	1	2
Toledo-Lucas County Port Authority	2	2	2	1
Toronto Port Authority	1	1	1	2
Trois-Rivières Port Authority	2	na	2	3
Windsor Port Authority	2	na	3	2
<b>ST. LAWRENCE SEAWAY</b>				
St. Lawrence Seaway Development Corporation	2	na	3	2
St. Lawrence Seaway Management Corporation	3	na	2	3
<b>TERMINALS AND SHIPYARDS</b>				
Bunge of Canada Ltd.	4	3	3	na
Empire Stevedoring Company Ltd.	3	na	2	na
Federal Marine Terminals	4	5	4	na
Les Élévateurs de Trois-Rivières	1	1	3	na
Logistec Corporation	4	4	2	na
Mission Terminal Inc.*	1	1	1	na
Montreal Gateway Terminals Partnership	3	na	4	na
Porlier Express Inc.	1	2	na	na
Rio Tinto Alcan (Port-Alfred Terminal)	5	5	5	na
Seaspan Marine Corporation (including Seaspan Shipyards)*	3	na	3	na
Ultramar Ltd.	5	na	3	na

## FULLY-VERIFIED RESULTS

The verification process introduced for shipowners in 2009 was extended to include ports, terminals, seaway corporations and shipyards in 2010. All participants who joined Green Marine before April 2010 have undergone rigorous external auditing. The results are contained in this annual report.



# INDUSTRY SUCCESS STORIES

## **FEDNAV GROUP BRINGS NEW GREENER SHIP TO THE GREAT LAKES**

Fednav celebrated the maiden voyage of the latest, greenest new member of its fleet, the MV Federal Yukina in the Great Lakes. On June 9, in the Port of Hamilton, where the new ship was welcomed, a special gift-giving ceremony took place between Hamilton Port Authority officials and Fednav executives.

## **CSL GETS ISO 14001 APPROVAL**

As proof of their ongoing commitment to environmental protection, Canada Steamship Lines and V.Ships Canada were awarded a certificate of compliance with ISO 14001 international standards by Lloyd's Register. Recognized worldwide, ISO 14001 is the only environmental standard that validates implementation of an environmental management system. Such a system represents a management tool that allows the company to identify and control environmental impacts related to its activities. It also shows commitment to continually improve company performance based on specific objectives and targets.

## **ALGOMA CENTRAL CORPORATION RELEASES ITS FIRST ENVIRONMENTAL REPORT**

Algoma Central Corporation published this report during the summer to discuss both its accomplishments and challenges on the environmental front. While its shipboard and office staff have been involved in environmental improvement initiatives for a long time, the company has increased and formalized its efforts over the last five years. Many achievements have marked this path, including Green Marine and ISO 14001 certification, which are highlighted. Publication of this report is another milestone, in which Algoma Central Corporation shares its current performance and improvement initiatives with the public.

## **TROIS-RIVIÈRES – A MODEL FOR CITY / PORT RELATIONS!**

Last May, the Trois-Rivières Port Authority (TRPA) officially inaugurated Phase 1 of its infrastructure modernization project *Cap sur 2020*. This represents a historic turning point for Trois-Rivières, as it reconciles its dual roles as a port city and a city port. One of *Cap sur 2020*'s key goals is to minimize the environmental impact of port activities by improving the port's interface with its urban surroundings. Together, the TRPA and the city have redefined what a port can and should be. This unprecedented cooperative effort involving more than 280 meetings between the region's main economic, community and port stakeholders has increased the port's productivity and capacity, strengthened its competitive position, and, most importantly, resulted in unprecedented integration between the port and the surrounding community. Phase 1 of *Cap sur 2020* has not only changed the port's physical facilities, it has fundamentally redefined the very concept of what it means to be a port.



# INDUSTRY SUCCESS STORIES

## **EMPIRE STEVEDORING COMPANY LIMITED REDUCES GHG AND AIR POLLUTANT EMISSIONS THANKS TO BRAND NEW HIGH-PERFORMANCE EQUIPMENT**

Empire Stevedoring Co. Ltd., which specializes in cargo ship loading and unloading, has replaced two of its mobile container handling machines acquired in the 1970s by more effective, state-of-the-art, low-pollution models at its Montréal terminal. The company's goal was primarily to reduce fuel consumption to lower GHG emissions and the main air pollutants resulting from its container handling activities. Empire Stevedoring estimates that the purchase of these Linde C400/5s will reduce fuel use by 43% from its old Marathon Letourneau Letro Porter model 2582 CH (Letro) equipment. A comparison of the two machines' other emissions also shows the following reductions: 43% in GHG, 87% in hydrocarbons, 47% in carbon monoxide (CO), 64% in nitrogen oxides (NOx), 43% in sulphur dioxide (SO<sub>2</sub>), and 80% in suspended particulates.

## **MARINE TERMINAL USES JELLYFISH FILTRATION SYSTEM TO TREAT STORM WATER**

Federal Marine Terminals (FMT) in Thorold, Ontario, a major operator of port cargo facilities in the Great Lakes region, has installed the Jellyfish fine sediment filter system as an integral part of its environmental protection plan. The system is being used to prevent untreated storm water run-off from entering nearby waters. FMT's Thorold location has a large coke pile that previously threatened the safety of local waterways, including the adjacent Welland Canal. The Jellyfish system's ability to filter neutrally buoyant particles made it an ideal tool for treating storm water run-off at this site. Run-off from the site's coke pile is collected in a single catch basin and pumped via a low-pressure line to a Jellyfish unit for filtration. In addition, Jellyfish's internal pre-treatment process allows for the capture of floatable hydrocarbons, ensuring that any oils on this portion of the site are also kept out of the environment.



## **THE PORT OF SEPT-ILES IS COMMITTED TO SUSTAINABLE SHIPPING**

The Port of Sept-Iles and CN received an award of excellence on May 27th from the Association québécoise du transport et des routes for their development of a ferry-rail service that provides a combination of rail and marine transportation to communities on the North Shore and in Labrador. The Port of Sept-Iles has (since 2004) supported rail infrastructure projects designed to connect the port with the North Shore rail network and allow for the establishment of a ferry-rail service and barge service for transporting aluminum (now recognized as an ideal model of shortsea shipping in the St. Lawrence - Great Lakes corridor. Overall, the service provided by these ferry-rail initiatives and the Alouette Spirit barge translates into ten fewer trucks on route 138 (the only highway serving the North Shore) every hour, and 25 000 fewer tonnes of GHG emissions every year.



## **STATE-OF-THE-ART VESSELS FOR ALGOMA CENTRAL CORPORATION**

Algoma Central Corporation is launching a new era in environmental efficiency. Its new EQUINOX CLASS vessels will include both self-unloaders and gearless bulk carriers. The EQUINOX CLASS offers unique vessel design and ultra-performance engines, boosting operating capacity by 15-20% while reducing fuel consumption, atmospheric emissions and other environmental impacts. In addition to optimizing hull geometry and installing engines meeting Tier 2 standards, the EQUINOX CLASS bulk carriers will be fitted with exhaust gas treatment devices (scrubbers) and scrubber heat-recovery equipment. The EQUINOX CLASS also offers space for future installation of new ballast water treatment systems. Its design will minimize cargo residues and accidental spills. These new bulk carriers are scheduled to become operational in early 2013.

## **PRINCE RUPERT WILL BE THE FIRST CANADIAN PORT TO OFFER SHORE POWER FOR CONTAINER SHIPS**

The Prince Rupert Port Authority's (PRPA's) Fairview Terminal project provides shore power capacity to container ships through an electric cable management system. The project is expected to reduce local GHG emissions by up to 4000 tonnes and criteria air contaminants by 160 tonnes annually by enabling container ships to shut down their engines and connect to the port's electrical grid while docked. Through this initiative, the Port of Prince Rupert answers calls from marine industry shipping companies for green port services. The Government of Canada will contribute \$2.5 million to the project. This funding is in addition to \$200 000 from the Government of British Columbia, and \$900 000 from the PRPA and its partners, CN Rail and Maher Terminals. Construction of the \$3.6-million project is expected to be completed this year.

## **CANFORNAV DONATES \$400 000 TO DUCKS UNLIMITED TO SAVE VITAL WETLANDS**

Canadian Forest Navigation Co. Ltd. (Canfornav) has donated \$400 000 to Ducks Unlimited Canada (DUC) to conserve two ecologically significant wetland regions along the St. Lawrence River. CEO Michael Hagn sees this contribution as an ideal way to give something back to the St. Lawrence ecosystem that has buoyed his company's operations. DUC is using \$250 000 of the donation to buy critical wetlands on Battures aux Loups Marins (Seal Island) downstream from Quebec City. These large rocky flats in the middle of the St. Lawrence River and south of Baie St-Paul are recognized as an Important Bird Area (IBA), which means that they provide an essential habitat but are not legally protected. Canfornav's remaining \$150 000 will facilitate DUC's wetland restoration project at Cooper Marsh near Cornwall, Ont. The large riverine marsh complex is located directly along the Lake St. Francis portion of the St. Lawrence. Cooper Marsh is now one of the few remaining coastal wetlands on the St. Lawrence River's Ontario side.





# A INCLUSIVE ORGANIZATION



As a voluntary initiative, Green Marine's success is based on participants' commitment and openness. Green Marine's structure allows for the participation of companies at both the technical and decision-making levels, while allowing industry partners to be involved in developing the environmental program.





## **GREEN MARINE MANAGEMENT CORPORATION**

The Green Marine initiative is managed by the Green Marine Management Corporation (GMMC), composed of eleven Canadian and US associations.<sup>3</sup>The GMMC, which manages the organization's current affairs, expanded in 2011 to welcome two new members from the West Coast—the Chamber of Shipping of British Columbia and the Council of Marine Carriers.

## **GOVERNANCE BOARD**

Green Marine is headed by a Governance Board made up of the presidents of companies that are Green Marine environmental program participants. The Board includes presidents of both Canadian and US companies, thereby highlighting the bi-national nature of the Green Marine partnership. The Governance Board meets formally once every year and its members have an opportunity to be actively involved in developing the Green Marine initiative, implementing the environmental program, and determining its strategic direction.<sup>4</sup>

## **ENVIRONMENT COMMITTEES**

Green Marine environment committees join industry and stakeholder representatives (from government, research institutions and environmental groups) to advise Green Marine on various program development aspects in order to continuously improve environmental performance.

## **TECHNICAL COMMITTEES**

Green Marine technical committees are responsible for reviewing performance indicators and identifying potential new environmental issues. All Green Marine participants are invited to join in the work of these committees.



<sup>3</sup> See Appendix A: GMMC and Secretariat members.

<sup>4</sup> See Appendix B: Governance Board members.



## APPENDIX A - Board of Directors:

- Angus Armstrong Ontario Marine Transportation Forum
- Bruce Bowie Canadian Shipowners Association
- Michael Broad Shipping Federation of Canada
- Stephen Brown Chamber of Shipping of British Columbia
- Steve Fisher American Great Lakes Ports Association
- Martin Fournier St. Lawrence Shipoperators
- Raymond Johnston (chair) Chamber of Maritime Commerce
- Anne Legars (secretary) Shipping Federation of Canada
- Gary Leroux Association of Canadian Port Authorities
- Philip Nelson Council of Marine Carriers
- Stuard Theis United States Great Lakes Shipping Association
- Nicole Trépanier St. Lawrence Economic Development Council

### Secretariat :

- Executive Director: David Bolduc
- Coordinator: Françoise Quintus
- Communications Officer: Manon Lanthier

info@green-marine.org  
418 263-5067  
271, de l'Estuaire  
Québec (Québec)  
G1K 8S8

## APPENDIX B - Governance Board:

- Greg Wight
  - Sean Leet
  - Guy Leblanc
  - Steve Cantin
  - Gerry Carter
  - Michael Hagn
  - William Friedman
  - Jean Dumas
  - Emmanuel Aucoin
  - Adolph Ojard
  - Michel Dallaire
  - Andrew Chodos
  - Paul Gourdeau
  - Laurence Pathy
  - Curtis Grad
  - Louis-Marie Beaulieu
  - Bruce Wood
  - Anthony G. Ianello
  - Bob Shields
  - Madeleine Paquin
  - Scott Bravener
  - Roy Hicklingbottom
  - Stephen Fletcher
  - Paul Kennedy
  - Kevin Doherty
  - Sylvie Vachon
  - Garry Garcin
  - Jacques Tanguay
  - Sid Hynes
  - Yves-Denis Gagnon
  - Eric Reinelt
  - Michel Gadoua
  - Don Krusel
  - Adrian Mitterhuber
  - Mario Girard
  - Martial Savard
  - Annie Duval
  - Alain Bouchard
  - Jim Quinn
  - Terry Johnson (Co-chair)
  - Robert Hedley
  - Pierre D. Gagnon
  - Frans Tjallingii
  - Georges Farrah
  - Terence Bowles
  - Ron Tursi
  - Tim Heney
  - Paul L. Toth Jr.
  - Geoffrey Wilson
  - Gaétan Boivin
  - Michel Martin
  - Jamie Johnson
  - Frank Dunn
  - David Cree
- Algoma Central Corporation
  - Atlantic Towing Limited
  - Bécancour Waterfront Industrial Park
  - Bunge Canada
  - Canada Steamship Lines
  - Canfornav
  - Cleveland-Cuyahoga County Port Authority
  - COGEMA
  - CTMA Group
  - Duluth Seaway Port Authority
  - Élévateurs de Trois-Rivières
  - Empire Stevedoring Company Limited
  - Federal Marine Terminals
  - Fednav Limited
  - Greater Victoria Harbour Authority
  - Groupe Desgagnés
  - Hamilton Port Authority
  - Illinois International Port District
  - Island Tug & Barge
  - Logistec Corporation
  - Lower Lakes Towing Limited
  - McAsphalt Marine Transportation Limited
  - McKeil Marine
  - Mission Terminal
  - Montréal Gateway Terminals Partnership
  - Montreal Port Authority
  - Norcan Petroleum Group
  - Ocean Group
  - Oceanex Inc.
  - Porlier Express
  - Port of Milwaukee
  - Port of Valleyfield
  - Prince Rupert Port Authority
  - Provmar Fuels
  - Québec Port Authority
  - Reformar
  - Rio Tinto Alcan
  - Saguenay Port Authority
  - Saint John Port Authority
  - Saint Lawrence Seaway Development Corporation
  - Seaspan Marine Corporation
  - Sept-Îles Port Authority
  - SMIT Canada
  - Société des Traversiers du Québec
  - St. Lawrence Seaway Management Corporation
  - TBS International / Roymar
  - Thunder Bay Port Authority
  - Toledo-Lucas County Port Authority
  - Toronto Port Authority
  - Trois-Rivières Port Authority
  - Ultramar
  - Valleytank
  - Valport
  - Windsor Port Authority

## PARTICIPANTS

### SHIPOWNERS

- Algoma Central Corporation
- Atlantic Towing Limited
- Canfornav
- Cogema
- CSL Group
- CTMA Group
- Fednav Limited
- Groupe Desgagnés
- Island Tug and Barge
- Lower Lakes Towing Limited
- McAsphalt Marine Transportation Limited
- McKeil Marine
- Ocean Group
- Oceanex
- Provmar
- Reformar
- TBS International/Roymar Ship Management
- Seaspans Marine Corporation
- Société des Traversiers du Québec
- SMIT

### TERMINALS AND SHIPYARDS

- Bunge du Canada
- Empire Stevedoring Company Limited
- Federal Marine Terminals
- Les Élévateurs de Trois-Rivières
- Logistec Corporation
- Mission Terminal
- Montreal Gateway Terminals Partnership
- Norcan
- Porlier Express
- Rio Tinto Alcan (Port-Alfred)
- Seaspans Marine Corporation
- Ultramar
- Valleytank
- Valport

### PORTS

- Bécancour Waterfront Industrial Park
- Cleveland-Cuyahoga County Port Authority
- Duluth Seaway Port Authority
- Greater Victoria Harbour Authority
- Hamilton Port Authority
- Illinois International Port District
- Montréal Port Authority
- Port of Milwaukee
- Port of Valleyfield
- Prince Rupert Port Authority
- Québec Port Authority
- Saint John Port Authority
- Saguenay Port Authority
- Sept-Îles Port Authority
- Thunder Bay Port Authority
- Toledo-Lucas County Port Authority
- Toronto Port Authority
- Trois-Rivières Port Authority
- Windsor Port Authority

### SEAWAY

- Saint Lawrence Seaway Development Corp.
- St. Lawrence Seaway Management Corp.



## PARTNERS

### INDUSTRY SUPPLIERS

- Aspin Kemp and Associates
- Atlantic CAT
- Bell Marine & Mill Supply
- DNV (Det Norske Veritas)
- DSS Marine
- Eniram
- Germanischer Lloyd
- Hermont Marine
- Kongsberg
- KRAL
- Lloyd's Register North America
- Magnus Chemicals Limited
- Marine and Offshore Canada
- Marine Care USA
- Marine Clean Limited
- Marine Recycling Corporation
- McAsphalt Industries Limited
- PESCA Environnement
- Quickload CEF
- Roche
- Seagulf Marine Industries Inc.
- S.I.G.E.I.M Inc.
- SNC-Lavalin Environment
- Stelvio Inc. (ShipDecision)
- Urgence Marine Inc.
- V.Ships Canada Inc.
- VapCor Inc.
- Vickers Oil
- Wärtsilä Canada
- Westpier Marine & Industrial Supply Inc.

### SHIPPERS

- Corus International

### OTHER ORGANIZATIONS

- Comité sectoriel de main-d'oeuvre de l'industrie maritime
- Corporation des pilotes du Saint-Laurent Central
- Georgian College's Great Lakes International Marine Training Centre
- Maritime Innovation
- Rightship Americas

## SUPPORTERS

### GOVERNMENTS


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

### MUNICIPALITIES

- Great Lakes and St. Lawrence Cities Initiative
- Board of Harbor Commissioners of the City of Milwaukee
- Communauté métropolitaine de Québec
- Marguerite-D'Youville MRC
- Promotion Saguenay
- Société de promotion économique de Rimouski
- City of Bécancour
- City of Contrecoeur
- City of Matane
- City of Montréal
- City of Montréal-Est
- City of Port-Cartier
- City of Québec
- City of Saint-Amable
- City of Sept-Îles
- City of Varennes

### ENVIRONMENTAL GROUPS

- Comités ZIP:
  - Les Deux Rives
  - Lac Saint-Pierre
  - Jacques-Cartier
  - Saguenay
  - Ville-Marie
  - Québec Chaudière-Appalaches
- World Wildlife Fund Canada
- Ducks Unlimited Canada
- Great Lakes United
- Les Amis de la vallée du Saint-Laurent
- Nature Québec
- Sedna Foundation
- Stratégies Saint-Laurent

An underwater photograph showing sunlight rays filtering through the water surface, creating a dramatic and serene atmosphere. The water is a deep blue, and the light rays are bright and clear, creating a sense of depth and tranquility.

*The expansion of Green Marine's membership is a testament to the environmental program's credibility and a clear indication of its role as a predominant force in the maritime industry's sustainable development efforts.*



## **A WAVE WORTH RIDING**

info@green-marine.org  
418 263-5067  
271, de l'Estuaire  
Québec (Québec)  
G1K 8S8

[www.green-marine.org](http://www.green-marine.org)