



**GREEN
MARINE**

PRESENTS



**SUSTAINABILITY
THROUGH
INNOVATIVE
PARTNERSHIPS**

OFFICIAL PROGRAM >>>>>>

**GREENTECH 2014
ENVIRONMENTAL CONFERENCE**



**SAINT JOHN NEW BRUNSWICK
JUNE 10, 11 & 12**



GREENTECH 2014 DELVES INTO LATEST RESEARCH AND INNOVATIVE APPROACHES



FIRST CARBON-NEUTRAL EVENT



I am pleased to welcome you to Saint John, New Brunswick, for GreenTech 2014 – the first Green Marine annual conference to be held on the East Coast!

Green Marine's seventh conference will be chock-full of new features. A quick look at the program makes it abundantly clear why it's relevant and worthwhile to take part. The program includes conference sessions on air emissions, community relations and environmental crisis management, partnerships and collaboration in support of financing sustainability, waste management, marine ecosystems protection, and the challenges linked to oil and gas transportation.

The conference will basically follow the structure that attendees have praised over the past six years. Topics of broader interest will be addressed in general sessions, after which parallel sessions will be held for representatives of port authorities and terminal facilities in one conference room, and for the delegates from shipping companies in another.

You will hear more on the SmartWay Transport Partnership, the Carbon War Room's innovative financial models for fuel-saving retrofits, Ducks Unlimited Canada and Irving Oil's collaborative efforts on coastal research, the Canaport Energy East Marine Terminal project, the Green Passport for responsible ship dismantling, the ShoreZone Port Response Tool, underwater noise management, as well as other current topics and emerging issues.

Green Marine is proud to say GreenTech 2014 will be the corporation's first carbon-neutral conference. Green Marine is seeking Planetair's certification for GreenTech 2014's carbon neutrality. With Planetair's assistance, the conference's organizers will quantify the event's greenhouse gas emissions, identify opportunities to reduce that GHG, and then offset the conference's climate impact with the purchase of carbon credits.

This year's conference definitely promises to be another enriching gathering. I would like to extend my thanks in advance to all of our sponsors who make GreenTech possible every year.

Enjoy the conference!

David Bolduc

Green Marine Executive Director



THE PRESENTATIONS

JUNE 11

8:45 am | Ports move towards greater sustainability
(Opening Session)

- > **Moderator: Jim Quinn**, CEO, Saint John Port Authority
- > **Kurt Nagle**, President & CEO, AAPA
- > **Paul MacIsaac**, Senior VP, Halifax Port Authority
- > **Mario Girard**, CEO, Quebec Port Authority

10:30 am | Air Emissions (shipowners)

The Canadian fuels industry and its role to improved emissions in the marine shipping sector

> **Gilles Morel**, Canadian Fuels Association

Black carbon (BC) is an issue being raised at the International Maritime Organization (IMO) for a few years now. The increase in Arctic marine traffic is of particular concern. Mr. Morel's presentation will focus on BC caused by transport. As a result of the highly reflective surface of Arctic snow and ice, BC deposits within a polar region have a higher, net-positive radiative-forcing effect. BC may also increase Arctic snow's melting rate, exposing dark surfaces earlier than if BC weren't present. It's also generally accepted that BC can be transported from locations within close proximity to the Arctic, as well as from farther away, possibly as south as 40°N. Shipping emissions have been highlighted as the IMO considers increased regulation, primarily in the Arctic because of the region's increased utilization for marine transportation. However, shipping north of 60°N currently represents only 1% of global shipping. Unless shipping dramatically increases north of 60°N, Mr. Morel suggests the effects of actual BC deposits won't be measurable. He will also summarize the key mitigation steps to be considered based on a recent study conducted by the United Nations Environment Program.

Monitoring, reporting and reducing air emissions from marine operations

> **Till Stoeckenius**, Environ International Corporation

Economic and regulatory incentives to estimate and track air-emission reductions from ocean-going vessels and related shore-based equipment and vehicles have been increasing with this trend expected to continue. Emission inventories for California seaports illustrate the impact of these driving forces. Emission calculation tools provide a convenient way to examine spatially resolved vessel emissions as a function of voyage parameters and ship operating characteristics. By integrating the emission calculations algorithm with an interactive Geographic Information System (GIS) system, it's possible to evaluate voyage total and segment-specific emissions under different voyage plan options, fuel types, and emission control technologies.

The SmartWay Transport Partnership's new marine tool

> **Jennifer Tuthill**, Natural Resources Canada

The SmartWay Transport Partnership is a network launched by the U.S. Environmental Protection Agency in 2004 and administered in Canada by Natural Resources Canada since 2012. It's designed to create business-to-business partnerships between companies that require and offer freight services and share a mutual interest in reducing their fuel use and emissions. The program currently boasts more than 3,000 industry partners, including upwards of 300 Canadian companies from the trucking, rail, logistics and freight shipper sectors. In 2014 SmartWay will offer a marine tool for tug and barge companies to benchmark and report their emissions performance. To register for the Partnership, companies must submit specific Excel spreadsheets (tools) that have been completed with the company's activity and emissions data from the previous year. The results are used by companies to benchmark their operations in comparison to the rest of their industry to report to shareholders, for marketing purposes, and making contracting decisions. Ms. Tuthill's presentation will demonstrate how the new marine tool works and how companies can use the tool to help their business.

10:30 am | Environmental Crisis Management /
Community relations (ports)

A case study at Fairview Bay on environmental crisis management

> **Jason Scherr**, Prince Rupert Port Authority

The Prince Rupert Port Authority (PRPA) has learned from first-hand experience a number of important lessons about managing an environmental crisis. This case study explores the strategies and actions taken to handle a significant incident, and the evaluation and mitigation of potential adverse impacts. On February 21st, 2013, PRPA had property vandalized on its land at Fairview Bay that led to a release of mineral oil onto third-party property and into the marine environment. The PRPA immediately enacted an Emergency Operations Centre (EOC) and implemented an emergency response plan, notifying appropriate agencies and engaging various third-party groups to direct containment and cleanup of the oil released to the upland and intertidal environments. The plan addressed the requirements of applicable regulatory agencies, the needs and concerns of involved third parties and the general public. An estimated 93% of the released oil was recovered during this intensive joint effort, with no observed mortalities to marine organisms. The PRPA has implemented an ongoing monitoring plan to ensure that any remaining oil is properly collected within the containment systems, and to understand the extent of any effects to the water, land, and marine life going forward.

Environmental leadership: crisis management and environmental release

> **Mark Gillan**, Emergency Solutions International

Green Marine is responsible for determining the Environmental Performance Indicator for Environmental Leadership by port authorities. Key determinants are the efforts made by a port authority to take a leadership role in providing sustainable programs of collaboration and innovation. By the nature of their work and the presence of hazardous materials, ports and their marine facilities present certain environmental risks to the communities in which they operate. Regulators and best practices necessitate that port authorities and operators create security and emergency management plans, exercise those plans, and seek community collaboration. Preparation and effective response through a high level of community collaboration minimize risk to the environment, port authority and port operators. This session will include: —Illustrations of tangible processes used to create programs that engage local government, planners and responders. (Port authorities and operators work with these organizations in an effort to plan and carry out exercises to minimize risk. The prevention of incidents that would negatively impact the environment, the port authority brand, and relations with port partners is the ultimate goal.) —An interactive discussion that encourages participants to share their experience in taking a leadership role within their community. (The objective is to reflect on their responsibility to act as a catalyst in building relationships that support environmental emergency preparedness.) —Emerging trends within traditional and citizen media (via Twitter, Facebook and other social platforms) that can affect community perception during a time of crisis.

Stakeholders outreach at the St. Lawrence Seaway Management Corporation

> **Jean Aubry-Morin**, St. Lawrence Seaway Management Corporation

Stakeholder Outreach at the St. Lawrence Seaway Management Corporation seeks to promote the binational Great Lakes/St. Lawrence Seaway System, branded as Highway H₂O, beyond its traditional commercial boundaries. The objective of the outreach is to underline the SLSMC's role as a principal steward of this shared water resource, which faces a wide range of competing demands from a diverse set of stakeholders. The presentation will outline the approach to the project management process in use throughout the SLSMC, covering the assessment, planning, management and evaluation phases, to ensure that all stakeholder interests are well represented and taken into account in guiding how best to execute a project. A process walk-through at GreenTech 2014 will serve to demonstrate the application of this process, which encompasses four stakeholder sectors: Media Relations (General Public), Trade Relations (Users and Commercial Traders), Community Relations (Riparian, Local Community and Environmental Interests), and Government Relations (All Levels). Three examples will be provided to help participants visualize the practical applications of the SLSMC's stakeholder outreach.

1:30 pm | Partnerships and Collaboration in Support of
Financing Sustainability

Improving performance and profitability: innovative financial models for fuel-saving retrofits

> **Peter Boyd**, Carbon War Room

The Carbon War Room has been working with PricewaterhouseCoopers (PwC) and a consortium of industry partners to develop self-financing models to increase the profitability and energy efficiency of existing fleets. The model in development, called "Self-Financing Fuel-Saving Mechanism" (SFFSM), facilitates the retrofitting of fuel-efficiency technologies and is designed to bring in third-party capital to finance 100% of the capital expenditure, with financiers enjoying their returns from the fuel savings generated by the efficiency gains. The Carbon War Room is taking its knowledge about innovative financing mechanisms from its work in the building environment and renewable energy sectors to shipping operations. Innovative third-party financing models have revolutionized the deployment of renewable and efficiency technologies in many key sectors and industries. These include: the power purchase agreement (PPA) for wind and solar, and Energy Service Company (ESCO) models for efficiency retrofits in the buildings sector. In the buildings market, ESCOs provide third-party financing for retrofits that improve a building's energy efficiency so a landlord or tenants aren't burdened with the upfront costs of the retrofits on their own balance sheets. The Carbon War Room has adapted this model to be suitable to the shipping industry. The Carbon War Room's fuel-efficiency retrofit financing model is technology agnostic and optimized to support the installation of a bundled suite of technologies that act upon different aspects of fuel inefficiency. A key focus of the model includes a sophisticated new data-collection methodology that uses continuous-monitoring equipment to quantify and verify fuel savings.

Innovative financing solutions for ship emissions compliance

> **Pace Ralli**, Clean Marine Energy

Clean Marine Energy (CME) offers ship owners tailored solutions for emissions compliance, utilizing a proprietary financing mechanism to retrofit their vessels with LNG fueling technology or scrubbers, without a large upfront capital requirement. Based on the needs of the specific vessel, CME can structure financing for the appropriate compliance technology, with financing services based on a proven model that has been adapted from the energy efficiency service model used within commercial real estate. The Emissions Compliance Service Agreement (ECSA) will cover the capital cost of dual-fuel conversion, and guarantees LNG supply and delivery to the converted vessels. If scrubber technology is the ship owner's choice for Emission Control Area (ECA) compliance, CME will provide capital for installation of the scrubber equipment from the ship owner's preferred vendor. CME's comprehensive offering is built on strategic partnerships among industry leaders that combine technology, engineering expertise, capabilities and track record to provide a turn-key solution that addresses all of a ship owner's needs in the face of the upcoming Jan. 1st ECA deadline.

THE PRESENTATIONS

(CONTINUED)

JUNE 11

JUNE 12



Strategies for recognizing ports for leadership in environmental performance, community partnership and economic sustainability

> **Christina Wolfe**, *Environmental Defense Fund*

Seaports play an essential role in an increasingly globalized world economy. As ports expand to accommodate additional growth, the nature of their operations requires significant resource use and often results in adverse environmental impacts. Environmental benchmarking and recognition programs have been successful at reducing resource use and mitigating impacts, while providing positive recognition to participant organizations. Recently, various stakeholders, including ports, port customers, community groups, government agencies and non-profits, convened to develop an independent, science-based effort with the goal of understanding if and how ports are participating in existing environmental recognition programs, and whether there are opportunities to expand or develop a framework to better meet the needs of ports and their constituents. The presentation will relate the project's findings, including an overview of existing programs and environmental metrics used by ports, and a summary of key recommendations for a strategy for environmental performance metrics and recognition at ports.

3:30 pm | Technology Forum

Short presentations on new technologies and innovation by GreenTech 2014 exhibitors

6:30 pm | Certification Ceremony and dinner

Seated dinner at the Diamond Jubilee Cruise Terminal

> **Guest Speaker: Mylène Paquette**



8:30 am | Waste management and sustainable ship recycling (shipowners)

Safe ship towing and recycling

> **Wayne Elliott**, *Marine Recycling Corporation*

This presentation will focus on the various aspects of vessel recycling. They include the aspects to take into account for the health and safety of certified workers, including confined spaces, asbestos abatement, rigging, mould and mildew identification, handling/removal, rescue and retrieval, sampling/testing protocol, and using certified equipment. Towing and dead ship towing preparations are vitally important and the riskiest part of the end-of-life management of obsolete vessels. The presentation will go over some of the details of vessel preparations, emergency boarding crew preparations, and the emergency equipment to be reviewed. Mr. Elliott will touch upon the inspections required before recycling begins, including sampling and testing for air quality, paints/coatings, refrigerants and other elements. He will also discuss the need for insurance to cover possible towing, pollution and liability risks.

Green Passport: a ship owner's first impressions and experience

> **Donald Shepherd**, *Atlantic Towing Limited*

Atlantic Towing Ltd. (ATL) took delivery of its first vessel with a Green Passport in 2012. The presentation will discuss those Green Passport requirements, show an example of Green Passport documentation, and review the potential upkeep effort throughout the vessel's life. The presentation will then summarize the high-level differences between the Green Passport requirements and the Inventory of Hazardous Materials that has replaced the Green Passport. Mr. Shepherd will conclude with some information about ATL's plans regarding the application of the DNV GL Recyclable notation on new-builds.

Life cycle assessment of waste management on ships

> **Isabelle Curau**, *Ellio*

Shipping industry regulations and stakeholder expectations are leading to increasing pressure for environmentally sound waste management. However, the current understanding of environmental impacts and the greenest options is limited. Mandated by Green Marine in collaboration with its members, the Ellio team performed a study comparing different waste management options of recyclable and organic waste generated on ships. This comparison was completed using a preliminary life cycle analysis (LCA) that takes into account the environmental impacts of all life cycle stages. This session will consist of a presentation of the methods used, results obtained, and the implications for future research on the subject.

8:30 am | Incentive schemes to improve environmental performance in shipping

Workshop for ports

PANEL FOLLOWED BY ROUNDTABLE DISCUSSION:

> **Peter Boyd**, *Carbon War Room*

> **Jason Scherr**, *Prince Rupert Port Authority*

> **Anuj Chopra**, *RightShip*

10:30 am | Protection of Marine Ecosystems (shipowners)

Protecting the Great Lakes from invasive species – why salinity helps

> **Dr. David Reid & Craig Middlebrook**, *Saint Lawrence Seaway Development Corporation*

Ballast water exchange (BWE) has been used since 1990 and BWE plus saltwater flushing have been used and strictly enforced since 2006 to reduce the risk of ballast-related invasive species introductions into the Great Lakes. The original basis for requiring these procedures was both dilution of coastal species and the expected mortality effects of salinity on freshwater organisms. There will be renewed focus on the continued use of these procedures when on-board ballast water treatment systems become mandatory under regulations. Canada has proposed and the U.S. Environmental Protection Agency has already required their continued use on ships entering the Great Lakes even if the ships employ onboard treatment systems. The proposed continued use of saltwater as part of a Great Lakes ballast management strategy is based on the scientific concept called salinity (or osmotic) shock. The underlying concepts and potential benefits of salinity shock will be discussed in the context of ballast-related invasive species risk management.

A mariner's guide to whales in the Northwest Atlantic

> **Véronique Nolet**, *Marine Mammal Observation Network*

Commercial shipping plays a crucial role in the economy of the Northwest Atlantic region by carrying raw materials and manufactured goods on both an import and export basis. However, the Northwest Atlantic is also home to many species of marine mammals that can negatively be affected by the repeated passage of commercial ships. Unlike many areas in the world, there was no comprehensive data set that included information about both vessel transits and whale sightings. The Shipping Federation of Canada, Dalhousie University and the Marine Mammal Observation Network therefore joined forces to create a comprehensive map of the Atlantic Northwest incorporating as much whale and vessel data as possible. The project's objectives were to identify the species of whales most affected by vessel activity, pinpoint where the highest densities of whales occur, as well as to clearly relate what mariners should know about whales and their behaviour and whom they should contact in the event of a ship strike.

Underwater noise from commercial shipping and its future in green shipping and international policy

> **Alexis Rudd**, *Consortium for Ocean Leadership*

With increasing evidence of the negative ecological impacts of underwater sound, policy on sound in the sea is increasing and evolving. A mounting number of research studies indicate the harmful effects of underwater sound on marine life, including endangered and commercially and ecologically important species. Marine organisms use sound for communication, feeding, and navigation. Like humans, they exhibit stress and decreased health when exposed to noise. Incidental noise from shipping is the most pervasive source of ocean noise. As the number of ships increase, so does the level of underwater sound, which has been doubling every decade since the 1960s. This year the International Maritime Organization plans to release guidelines regarding underwater noise based on new international standards for measuring and rating it. In this session, Dr. Rudd will discuss the new research into the effects of underwater noise on ocean organisms, the main sources of underwater ship noise, the recent evolution in international policy, and the future of underwater noise within green shipping.

THE PRESENTATIONS

(CONTINUED)

JUNE 12

10:30 am Improving Sustainability in Coastal areas
through collaborative efforts (ports)

Advancing port sustainability through collaboration: the West Coast ports sustainable design and construction guidelines

> **Noeleen Tillman**, *International Institute for Sustainable Seaports*

Ports have increased in size to meet the demands of burgeoning international trade and commerce. While expansion has been a great source of economic benefit to communities, it has come with impacts to the environment and neighborhoods. For new development, ports require a "sustainable" course of action that seeks to maximize economic, social and environmental benefits while minimizing impacts. Many ports have taken a "beyond compliance" position and are moving forward on defining sustainable industrial development management systems, guiding principles and policies. These, however, differ from port to port, making it impossible to establish a one-size-fits-all solution. Representatives from seven U.S. West Coast ports recognized the value of diverse port authorities collaborating to create sustainable practices that could be applicable to all. The ports of Portland, Seattle, Tacoma, Los Angeles, Vancouver (U.S.), San Diego, and Long Beach agreed to form the Joint West Coast Ports Technical Committee to develop a compendium of sustainable design and construction guidelines regarding marine industrial development. The guidelines focus on the design and construction phases for major port infrastructure projects. They are specific enough to apply to West Coast ports yet flexible enough to be used by ports in other regions or countries. Each member of the committee provided funding to develop the guidelines in partnership with the International Institute for Sustainable Seaports. The end result is a significant amalgamation of collaborative best practices and sustainable attributes incorporated into an Excel-based data tool available for any organization to use freely.

Industry leadership in coastal research through effective partnerships

> **Geoffrey Harding**, *Ducks Unlimited Canada* & **Dr. Michael Stokesbury**, *Acadia University*

In 2009 Irving Oil, Acadia University and Ducks Unlimited Canada (DUC) signed an agreement that outlined areas of common interest and agreed to develop a joint research strategy within the Acadia region (Atlantic Canada and New England). The parties agreed to advance this partnership with the first milestone being the establishment of the Beaubassin Research Station near Aulac, New Brunswick, at the head of the Bay of Fundy. This facility was opened in 2012 with a goal of being internationally recognized as a centre for coastal wetland research. The Irving Oil, Acadia University and DUC partnership has started a science-based evaluation of the effectiveness of fishways (156 in Atlantic Canada) to enable fish passage between bodies of water. The results of this science-based evaluation will inform future engineering of fish passage systems to increase passage efficiency with a long-term goal of benefitting the overall productivity of rivers and estuaries in the Bay of Fundy and the greater Gulf of Maine.

Right Whales and their Allies: the Canadian Stewardship Connection

> **Moir Brown**, *New England Aquarium & Canadian Whale Institute*

Ocean-going vessels pose a threat to large whales worldwide and are responsible for the majority of diagnosed deaths among North Atlantic right whales. In 1998, scientists formed a unique partnership with professional mariners to design measures to reduce vessel-strike mortality in this species. Efforts resulted in two new implementations by Canada, sanctioned by the International Maritime Organization, to minimize the risk of lethal vessel strikes of right whales. The Bay of Fundy Traffic Separation Scheme was amended (2003) and a seasonal and recommendatory Area To Be Avoided was implemented on Roseway Basin, south of Nova Scotia (2008). Conservation and recovery of the species was enhanced by modifying vessel routing in areas associated with high concentrations of right whales. This work demonstrates that effective science driven policy for conservation can be identified, developed, and implemented to provide vessel operators with a direct action they can take to protect right whales.

1:30 pm Transportation of Oil and Gas:
Challenges and Solutions

GUEST SPEAKERS:

> **Paul Browning**, *President and CEO, Irving Oil*

> **François Poirier**, *President, Energy East Pipeline Project, TransCanada*

Mr. Browning and Mr. Poirier will present a high-level overview of the Canaport Energy East Marine Terminal project and Energy East pipeline project, including their impact on the marine transportation sector. While these projects are expected to yield significant economic benefits nationally as well as locally in Saint John, sustainability aspects represent a key factor in their successful completion. Mr. Browning and Poirier will detail some of these aspects (risk mitigation, environmental assessments, public consultation, etc.) and the strategy to ensure the projects' social license.

Port Metro Vancouver's liquid bulk handling information tour to Norway

Jim Crandles, *Port Metro Vancouver*

With the majority of British Columbia's liquid bulk export cargoes being handled through Port Metro Vancouver (PMV), the port has an ongoing interest in learning about best practices in liquid bulk handling throughout the world. The port also recognizes that the safe handling of these cargoes is increasingly of interest to all B.C. coastal communities, not just those neighbouring PMV. With these factors in mind, PMV organized an informational tour to Norway in June 2013 to develop a greater understanding of Norway's governance and community engagement regarding liquid bulk storage, ship loading and marine transportation, and to better comprehend how Norway became a global leader in spill prevention and response. For the tour, PMV gathered a diverse mix of representative stakeholders from among B.C. regulators, environmental groups, local governments, First Nations, service providers, and industry. The presentation will provide an overview of the tour, some of the key insights gained, as well as the benefits of undertaking such an informational trip.

The ShoreZone Port Response Tool: a response and operations systems for spill response in ports

John Silva, *Moran Environmental Recovery*

The ShoreZone Response Tool (SRT) is a response and operations tool based on high-resolution geo-referenced videography and photography for responders or operational personnel able to retrieve the imagery via the Internet. The imagery is specifically collected for the SRT using low-altitude helicopter surveys. Both video and photos are collected of the shoreline at low tide so the entire intertidal zone is captured. The methodology follows the ShoreZone mapping protocols applied to more than 100,000 kilometres of Pacific Northwest shoreline (Oregon, Washington, British Columbia and Alaska). The SRT has a "click-click-easy" interface to access the high-resolution videos and photos, which provide detailed shoreline images. Responders can readily visualize response constraints: environmental issues (such as marsh), upland and marine accessibility (for example, the best means to access a vacuum truck), and proximity to special nearby features (such as coastal parks). Mapping data, such as the Environmental Sensitivity Index (ESI) or shore-type mapping, is included but with the overriding goal to keep the site "click-click-easy". In the ShoreZone team's experience, the high-resolution imagery is a consensus-building tool with two individuals viewing the same image nearly always agreeing on what they're seeing and what the most appropriate response should be. The SRT has been implemented in the Port of Jacksonville for 200 km, and for 6,000 km along Alaska's North Slope. It's anticipated the SRT will be introduced at the Port of Prince Rupert this summer. The SRT assists ports in implementing state-of-the-art response as part of the port's safety and environmental management culture.

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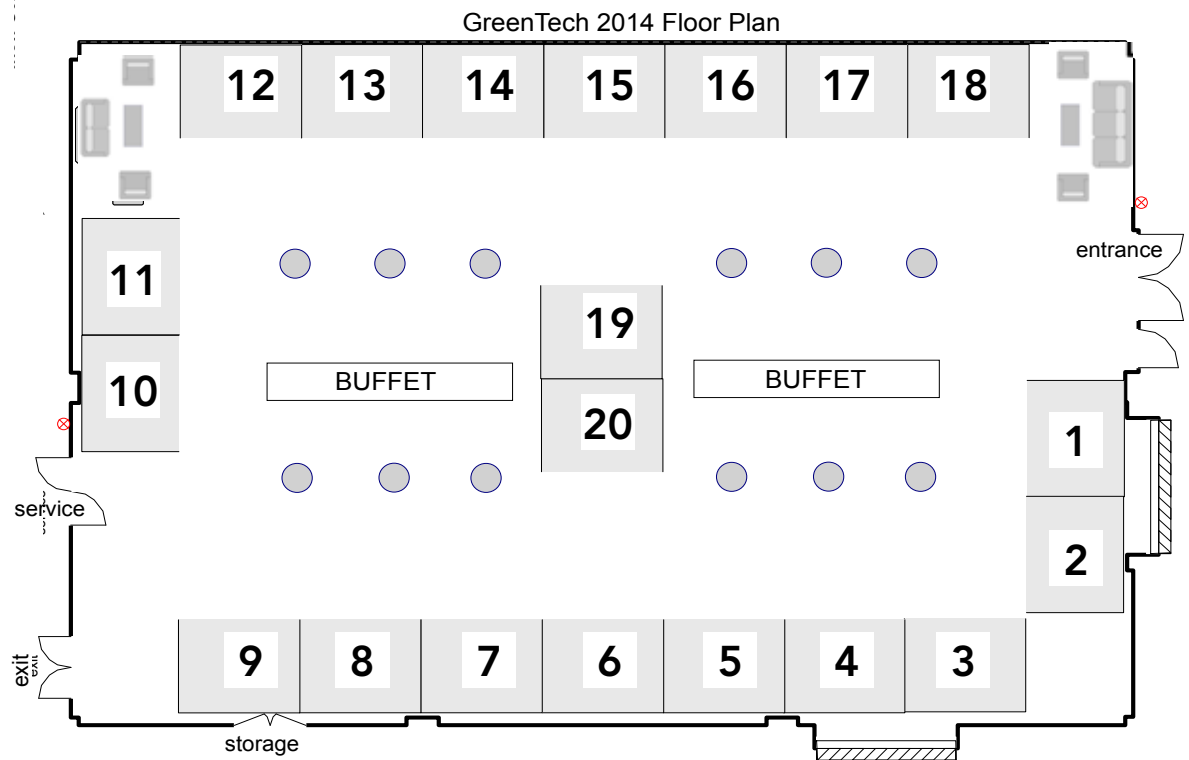
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THE EXHIBITORS >>>>>>



EXHIBITOR	DESCRIPTION	BOOTH
	ABB Turbocharging is the world leader in turbocharging diesel and gas engines. ABB operates over 110 certified turbocharger service stations in more than 55 countries via an online network linked to its head office in Baden, Switzerland. Fast, direct access to the case history of every one of the more than 180,000 turbochargers ensures proactive support in real time.	18
	American Chemical Technologies, Inc. is committed to providing high performance lubricants for the marine industry. Their full synthetic hydraulic and gear fluids meet all the new requirements for the VGP (Vessel General Permit), are approved for use by Transport Canada, and are superior lubricants for equipment longevity.	9
	Canadian Sailings & Transportation magazine, founded in 1982 and now published by Great White Publications, is a weekly publication for transportation and logistics professionals, distributed coast to coast in Canada and beyond. The publication provides national/regional trade and transportation news, profiles on industry personalities, companies and ports. They also publish special features on various topics and the content also includes The Shippers' Handbook.	14
	Cavotec is a global engineering group that enables industries worldwide to improve productivity, safety and sustainability. Their innovative shore-to-ship electrical power systems, automated mooring technology, MoorMaster™, and E-RTG systems (Electric Rubber Tire Gantry Crane) ensure safe, clean and efficient operations at ports all over the world.	6
	Concept Naval has specialized in supplying naval architecture services since 1985. The company's portfolio includes many innovative designs, such as North America's first liquefied natural gas (LNG) passenger vessel.	4

EXHIBITOR	DESCRIPTION	BOOTH
	ENVIROLIN, importer and distributor of biodegradable synthetic lubricants of the globally recognized European brand PANOLIN®. The wide range of eco-friendly products offered by PANOLIN® meet the specific needs of customers in the heavy machinery industry, maritime, exploration and oil platforms, forestry, railway, agriculture and hydropower; one ocean to the other.	19
	Industrial filtration specialists, Filtramax represents major manufacturers of filtration solutions in hydraulic and lube, process liquids and water, dust collection, compressed air. The company is the Canadian master distributor of MAHLE Industrial Filtration, manufacturer of customized, highly efficient filtration and separation systems for a wide variety of marine applications.	20
	Hug Engineering's core business is the development, manufacturing, engineering, sales, and servicing of exhaust gas purification systems. The company has been providing standard as well as custom-made solutions to its customers for more than 30 years. As an innovation leader Hug Engineering has become one of the world's leaders in the area of soot deduction with diesel particle filters and catalytic exhaust after treatment for IMO 3 compliance for any type of ship ranging from inland water vessels, ferries, and tugboats to ocean going vessels and cruise ships.	2
	Jastram Technologies Ltd (JTL) is an authorized distribution company for more than 18 internationally renowned manufacturers. JTL carries some of the best equipment engineered for the marine industry, with offices in British Columbia, Ontario and Nova Scotia. JTL customers range from ship owners/fleet managers to shipyards, contractors and end users, as well as government agencies such as the Canadian Navy, Canadian Coast Guard and police authorities.	17
	MSi3D is a service company specializing in marine inspections in real-time with 3D sonar. The company is the only one to use the Echoscope® system from Coda Octopus – the most evolved technology of its kind on the market. This mobile technology allows digital inspection and surveillance of marine and port infrastructures using high-definition 3D sonar, providing real-time and high-precision data.	11
	The Office of Small and Medium Enterprises (OSME) assists businesses to sell their goods and services to the Government of Canada. OSME also manages the Build in Canada Innovation Program (BCIP), which buys pre-commercial innovations from Canadian companies and tests them within the federal government operational environment.	7
	OpDAQ Systems specializes in ship-board performance monitoring systems and sea-trial monitoring services, helping ship operators to reduce fuel consumption by providing key performance indicators such as real-time fuel consumption, specific fuel consumption, fuel per nautical mile and engine power. Using state-of-the-art sensors OpDAQ assists its customers to get accurate performance.	13
	As a global specialist in energy management, Schneider Electric provides the latest solutions in the Navy, Merchant Marine and Marine offshore segments. They offer increased reliability of electrical systems, a comprehensive suite of services and equipment solutions, energy management optimization and total support throughout each vessel's life cycle. The company focuses on making energy safe, reliable, efficient, productive and green.	16
	Vickers Oils, a private independent UK company established in 1828, pioneered the development and introduction of Environmentally Acceptable Lubricants (EALs) for the Marine sector and is now clear market leader having supplied more than 1300 vessels worldwide, and having gained approvals and acceptances from many of the leading OEMs. Markets served include stern tubes, stabilisers, thrusters CPPs, hydraulics and greases, in more than 60 countries.	1
	Wärtsilä is a global leader in complete lifecycle power solutions for the marine and energy markets. Wärtsilä supports its customers throughout the lifecycle of their installations by providing Engine Services, Reconditioning Services, Propulsion Services, Operation & Management, Automation Services, Ship Services and Training Services.	15

THE SPEAKERS



> Jean Aubry-Morin, St. Lawrence Seaway Management Corporation

Jean Aubry-Morin was named VP, External Relations, at the St. Lawrence Seaway Management Corporation (SLSMC) in January 2013. He joined the Seaway as Corporate Sustainability and Environmental Officer in 2008 and shortly thereafter spent a period of time in charge of the Niagara Region. Prior to joining the Seaway, he worked in the industrial energy sector and within the industrial transportation and distribution sector. He has a Business Administration background and extensive management experience spanning North America, Europe and Asia.



> Peter Boyd, Carbon War Room

Peter Boyd served as the Carbon War Room's Launch Director in 2009 when Sir Richard Branson and likeminded co-founders decided to focus on accelerating profitable climate change solutions through greater energy efficiencies. He brings more than 15 years of private-sector experience in strategy, marketing, operations and general management to his role as Chief Operating Officer. He previously served as CEO of Virgin Mobile South Africa. Mr. Boyd is also Chair of the United Kingdom's Energy Efficiency Deployment Office. He began his career at McKinsey & Company after graduating from Oxford University with a BA Honours in Philosophy, Politics and Economics.



> Moira Brown, New England Aquarium & Canadian Whale Institute

Moira Brown is considered Canada's leading North Atlantic right whale research scientist. Her research focuses on population biology and demographic studies. The data primarily collected in the Bay of Fundy is used to reduce vessel and fishing operation interactions with right whales. Her work with the Government of Canada and the International Maritime Organization has resulted in the implementation of a conservation measure in the Bay of Fundy to significantly reduce the probability of vessels striking right whales. Dr. Brown is a graduate of both McGill and Guelph universities and holds a Doctorate in Marine Biology. She is currently a Senior Scientist with the New England Aquarium in Boston, and with the Canadian Whale Institute (Campobello Island, New Brunswick). She has held teaching and research positions at the College of the Atlantic, and the Provincetown Center for Coastal Studies. Recognition for her research and conservation efforts has included an Honorary Doctor of Laws from Mount Allison University and four environment awards for her efforts in promoting the knowledge, conservation and stewardship measures that have contributed to the recovery of North Atlantic right whales.



> Paul Browning, Irving Oil

Paul Browning joined Irving Oil in 2013 as President and CEO. He also serves on the Irving Oil Board of Directors. Prior to joining Irving Oil in Canada, he worked in the United States, Europe, and Mexico. He brings extensive global leadership experience from the energy industry. He previously worked at General Electric, where he was President and CEO of the Thermal Products Division of GE Power & Water in Schenectady, New York. Before joining GE, he worked at Caterpillar Corp., where his roles included Managing Director of Caterpillar Motoren in Kiel, Germany, and Vice President, Turbomachinery Products, at Caterpillar's Solar Turbines Division in San Diego, California. He has a Bachelor of Science in Metallurgical Engineering and Materials Science from Carnegie Mellon and a Master of Science in Materials Engineering from Rensselaer Polytechnic Institute.



> Anuj Chopra, RightShip Americas

With more than 30 years of maritime experience both at sea and on shore, Anuj Chopra joined RightShip in October 2013 to drive business development, lead the vetting team, and foster customer relations in the Americas region. He previously served as President of Anglo-Eastern (Houston) LLC with operational responsibility for all Anglo-Eastern managed vessels visiting American ports, along with managing risk evaluation, assessment and mitigation, and liaising with customers, charterers, the U.S. Coast Guard, the P&I Club, as well as flag and classification societies. He began his seafaring career as a deck cadet working his way up to Master and has a Commonwealth Extra Masters Certificate of Competency and Shipping Management from the Indian Institute of Management. He is a Fellow of The Nautical Institute and an active supporter of seafarer welfare.



> Jim Crandles, Port Metro Vancouver

As Director of Planning and Development since 2011, Jim Crandles oversees initiatives to increase capacity at Port Metro Vancouver. He's in charge of planning for land use and transportation, as well as permit processes for new development. He became Director of Real Estate in 2005 after completing his Simon Fraser MBA. Hired as the port's first Urban Planner in 1991, his positions have included Manager of Planning, and Director of Planning. He has a BA in Urban and Regional Planning from Ryerson and is a member of the Canadian Institute of Planners, B.C. Institute of Planners, and Real Estate Institute of B.C.



> Isabelle Curau, Ellio

Isabelle Curau has a Master in Environmental Sciences from the Université du Québec à Montréal and has been trained by the Interuniversity Research Centre for the Life Cycle of Products, Processes and Services (CIRAI) at Polytechnique Montréal. She has collaborated with more than 30 organizations from the public, private and non-profit sectors. Working as a sustainability consultant with the Montreal-based firm Ellio for the past five years, she specializes in the fields of environmental management, sustainability reporting, and life cycle assessment.



> Wayne Elliott, Marine Recycling Corporation

Wayne Elliott, a founder of Marine Recycling Corp., has actively been recycling marine vessels since 1983. He started at 14 working during the summer at a shipyard that his father managed in Hamilton, Ont. He has personally been involved in the recycling of more than 50 vessels. He co-founded Marine Recycling Corp., the world's first ISO 14001 certified ship breaker, in December 2000. His two youngest sons manage the ship recycling operations now. They have 10 years of experience and have recycled 20 vessels so far. The family also operates a hazardous waste recycling facility specializing in battery waste, as well as two scrap metal recycling yards – all within the Niagara Region.



> Mark Gillan, Emergency Solutions International

Before founding Emergency Solutions International, Mark Gillan served the Saint John Fire Department, ending his 26-year career as Deputy Chief and Acting Fire Chief. He served eight years on the Rescue Squad. As a Hazardous Materials Technician, he was among the first firefighters chosen to attend Canada's counter-terrorism program. Along with a Bachelor of Business from Dalhousie, he has done LNG Suppression Training at Texas A&M, studied Incident Command at the U.S. National Fire Academy, completed the Leadership in Crisis program at Harvard, and undergone advanced CFB Suffield training. Since 2011 he's conducted risk assessments and industrial/community interface exercises.



> Mario Girard, Quebec Port Authority

Mario Girard has been president and CEO of the Quebec Port Authority since January 2011. He previously worked as the CEO of the Fondation de l'entrepreneuriat from 2008 to 2011. His involvement with the organization led to the creation of an index of Quebec entrepreneurs in 2009 and a collective surge in their status within the province. He served as Chairman and CEO of Nstein Technologies (now a division of Open Text) from 2001 to 2007, a management software development firm currently used by the world's largest media companies. Mr. Girard previously headed Gespro Technologies, a computer company he co-founded in 1985 at the age of 24. Under his helm, the company employed several hundred people. The main division was sold to TELUS Business Solutions in 2001. Mr. Girard's early business efforts have been recognized by the Young Entrepreneur Artista-Sunlife Award for Québec. He was also named IT Personality of the Year 2006 by the Fédération IT Québec. He's a member of the World Presidents' Organization whose 18,000 members promote better leadership through education and the exchange of ideas. Mr. Girard also sits on the Board of Directors for the Fondation de l'entrepreneuriat, and Quebec City's Summer Festival.



> Geoffrey Harding, Ducks Unlimited Canada

Geoffrey Harding, P. Eng., is the Manager of Major Projects, Atlantic, for Ducks Unlimited Canada (DUC). His responsibilities focus on the development of strategic industry and government partnerships to advance DUC's wetland conservation mission. These efforts include the establishment of the Beaubassin Research Centre at the upper end of the Bay of Fundy on the Tantramar Marshes. This coastal wetland research facility is the result of a partnership among Irving Oil, Acadia University and DUC. These partners support the collaboration of private industry, academia and NGOs as a successful business model for achieving a sustainable economic and environmental future for the Atlantic region.



> Paul MacIsaac, Halifax Port Authority

Paul MacIsaac joined the Halifax Port Authority as Senior Vice President in September 2005. He currently has overall responsibility for Finance, Infrastructure, Environmental Management and the Seaport Redevelopment Project. Prior to joining the Halifax Port Authority, Mr. MacIsaac held senior executive positions in the private sector where his focus was retail operations and commercial real estate. Earlier he worked with Ernst & Young Chartered Accountants. He is a Board Member of Canadian Manufacturers & Exporters Nova Scotia, as well as a member of Financial Executives International, and Past-Chair of the Finance Committee at the Association of Canadian Port Authorities. He also volunteers with various charities.



> Craig Middlebrook, Saint Lawrence Seaway Development Corporation

Craig Middlebrook serves as the Deputy Administrator of the Saint Lawrence Seaway Development Corporation at the U.S. Department of Transportation. He also has served as the agency's Chief of Staff, Acting Chief Counsel, and Acting Administrator. Mr. Middlebrook was given the Presidential Rank Award in 2011 and has also received awards from the U.S. Environmental Protection Agency and the U.S. Department of Transportation for his work on ballast water management and regulation issues.



> Gilles Morel, Canadian Fuels Association

Gilles Morel is Director, Fuels, of the Canadian Fuels Association, representing the industry supplying 95% of Canada's transportation fuels. As a civil engineer with Imperial Oil for 32 years, he brings a track record of successful project management in marketing, distribution, refining, and fuels quality programs. As Supply Manager, he coordinated Quebec supply activities before becoming Public and Governmental Affairs Manager for Quebec. A few years later, he joined the Canadian Petroleum Products Institute (Canadian Fuels Association's predecessor) to represent the industry in dealing with various levels of government and stakeholders on matters such as the environment, energy and fuels.



> Kurt Nagle, American Association of Port Authorities

Kurt Nagle has more than 30 years of experience in Washington, D.C., related to seaports and international trade. Since 1995 he has been the President and CEO for the American Association of Port Authorities (AAPA). He began working at AAPA, the alliance of the leading public port authorities throughout the Western Hemisphere, in 1985. Prior to joining AAPA, Mr. Nagle served as Director of International Trade for the National Coal Association, and as Assistant Secretary for the Coal Exporters Association. He previously worked in the Office of International Economic Research at the U.S. Department of Commerce. He currently serves on the Executive Committee of the Propeller Club of the United States, and is a former commissioner of PIANC, the International Navigation Congress. Mr. Nagle holds a Master in Economics from George Mason University.

**> Véronique Nolet, Marine Mammal Observation Network**

Véronique Nolet has been a marine biologist for the past 10 years and has worked for the not-for-profit Marine Mammal Observation Network since graduating from the Université du Québec à Rimouski. As a result of her strong interest in commercial navigation, she played a leading role in producing A Mariner's Guide to Whales in the Northwest Atlantic, an educational and awareness tool developed in collaboration with the Shipping Federation of Canada and Dalhousie University.

**> François Poirier, Energy East Pipeline Project**

As President, Energy East Pipeline Project, François Poirier has overall responsibility for the Energy East Pipeline Project. The Energy East Pipeline will extend approximately 4,600 km from receipt points in Alberta and Saskatchewan to provide Western Canadian Sedimentary Basin and Bakken crude oil access to refineries in Eastern Canada and to export markets. Prior to his current appointment, Mr. Poirier spent 25 years in investment banking, consulting, and as a Corporate Director. Most recently, he was President and Head, Investment Banking and Capital Markets, for Wells Fargo Securities Canada, Ltd., where he had overall responsibility for the firm's investment banking practice in Canada. Previously, Mr. Poirier was Group Head, Power and Pipelines Investment Banking, at J.P. Morgan Securities, in New York. In that capacity, he was a financial advisor for clients on several acquisitions and divestitures of energy infrastructure assets including pipelines, power plants, gas and electric utilities. Mr. Poirier was an Independent Director of Capital Power Income LP from 2007 until 2011, and is Past Chair of the Toronto North Food Bank. He holds a Master of Business Administration from the Schulich School of Business at York University, and graduated Magna Cum Laude with a Bachelor of Operations Research from the University of Ottawa.

**> Jim Quinn, Port Saint John**

Jim Quinn was appointed President and CEO of the Saint John Port Authority in September 2010. He brings more than 30 years of experience in the marine and public sectors and began his career on ships sailing out of the Port of Saint John in the mid-1970s. In 1981 he rejoined the Canadian Coast Guard where he was promoted to leadership positions that included Regional Director of the Central and Arctic Region, and Director General, Marine Programs. His Coast Guard experience took him to ports across Canada and around the world. After 23 years with the Coast Guard, he joined the Privy Council Office's Machinery of Government Secretariat and Social Development Policy Secretariat as a Senior Advisor. In 2002, he joined Indian and Northern Affairs Canada as Director General of Lands and was promoted through several leadership positions culminating in the Chief Financial Officer/Assistant Deputy Minister role. He also held the position of Chief Financial Officer at the Canadian International Development Agency before leaving government to work at the Saint John Port Authority. He has a BSc from Dalhousie and holds the professional designation of Certified Management Accountant.

**> Pace Ralli, Clean Marine Energy**

Pace Ralli is Co-Founder of Clean Marine Energy. He obtained a BA from Middlebury College and MBA from Dartmouth College's Tuck School of Business. In 2009 he moved into energy efficiency and natural gas at Pacific Gas & Electric, California's largest utility. He next became Principal at SClenergy and helped to launch the Energy Efficiency Catalyst Fund to finance large building retrofits and unlock large-scale emission reductions in commercial real estate. He has engineered the Emissions Compliance Service Agreement to unlock parallel benefits for the shipping industry by eliminating barriers when ship owners convert to LNG or install exhaust scrubbers.

**> David Reid, Saint Lawrence Seaway Development Corporation**

David Reid has a Ph.D. in Oceanography and has conducted aquatic invasive species research related to ballast water and the Great Lakes for the past 12 years of his 41-year federal research career. He currently provides scientific advice related to ballast water and invasive species as a contractor for the Saint Lawrence Seaway Development Corporation.

**> Alexis Rudd, Consortium for Ocean Leadership**

Alexis Rudd completed her PhD research at the University of Hawaii on whales and underwater sound from a commercial shipping vessel. She is currently working at the Consortium for Ocean Leadership on the issue of noise from commercial shipping.

**> Jason Scherr, Prince Rupert Port Authority**

Jason Scherr has 18 years of experience in fisheries and environmental monitoring. He is responsible for the Environmental Sustainability Plan for the Prince Rupert Port Authority (PRPA). The PRPA is guided in all of its activities by key principles of environmental sustainability, including pollution prevention, the preservation of environmental integrity, the efficient use of resources, and continuous improvement. Mr. Scherr is the lead for the Green Marine program at the PRPA. He is an alumnus of the University of Victoria (Geography, History, English), and has served as the President of the Prince Rupert and District Chamber of Commerce.

**> Donald Shepherd, Atlantic Towing Limited**

Donald Shepherd is a naval architect with more than 20 years of experience in shipbuilding and 10 years handling ship owner requirements. As Director of Technology and Development at Atlantic Towing, he's responsible for the direction and implementation of the company's environmental strategy, as well as specifying, overseeing and accepting all new vessels into the fleet.

**> John Silva, Moran Environmental Recovery**

John Silva is the Vice President of Preparedness and Response Services at Moran Environmental Recovery (MER). A graduate of the Massachusetts Maritime College, he has more than 15 years of experience in spill response. In 2010 he was MER's Incident Commander for the Deepwater Horizon spill incident. He has closely been involved with the ShoreZone Response Tool's development to ensure its information reflects the needs of port operations and regional response teams. Under his direction, MER has played a significant role in updating and developing new Geographic Response Strategies. He's also a member of the Spill Control Association of America.

**> Till Stoeckenius, Environ International Corporation**

Till Stoeckenius, a Senior Meteorologist at ENVIRON International Corporation, has analysed air-quality issues for industry and government clients for more than 34 years. Much of his recent work has focused on air-quality impacts associated with the movement of goods, including seaport and related marine operations. He served as lead consultant for the development of the California Port of Oakland Maritime Air Quality Improvement Plan and has provided cargo vessel and cruise ship operators, as well as the Canadian government, with analyses of alternative strategies for complying with MARPOL Annex VI requirements applicable in the North America Emission Control Area.

**> Michael Stokesbury, Acadia University**

Michael Stokesbury is an Assistant Professor and holds a Canada Research Chair in the Ecology of Coastal Environments at the Biology Department of Acadia University. His research focuses on quantifying the impact of human activity disturbances in coastal ecosystems on fish behaviour and how this knowledge can be used to mitigate the negative effects of industrial activities on fish populations. Dr. Stokesbury is currently working with Ducks Unlimited Canada and Irving Oil to assess the passage efficiency of different fish through fishways in Atlantic Canada.

**> Noeleen Tillman, International Institute for Sustainable Seaports**

Noeleen Tillman is Executive Director of the International Institute for Sustainable Seaports which supplies port-specific sustainability-related information, tools, networking and best practices for the maritime industry. She's written papers on the state of port sustainability worldwide, and serves as a technical expert for the U.S. Trade and Development Agency. A former Executive Vice President of the Global Environment & Technology Foundation (GETF), her many projects included being lead architect of the GETF/American Association of Port Authorities Environmental Management Program that supported 20-plus ports developing an EMS. Her achievements include the U.S. Department of Defense Thomas D. Wright Environmental Excellence Award.

**> Jennifer Tuthill, Natural Resources Canada**

Jennifer Tuthill is Senior Manager in the Office of Energy Efficiency at Natural Resources Canada (NRCAN). She has worked on integrating the SmartWay Transport Partnership in Canada since 2011. She also coordinates the federal-provincial Transportation Working Group on Energy Efficiency. Prior to joining NRCAN, she worked as a consultant at Marbek Resource Consultants, specializing in analysis of transportation energy use, as well as air and water pollution policies. She has degrees in Biology and Economics from McGill and the University of Toronto respectively. An avid world traveler, she has spent more than a year living in Japan.

**> Christina Wolfe, Environmental Defense Fund**

Christina Wolfe works on port and transportation projects at the Environmental Defense Fund (EDF). She's currently managing an executive level port stakeholder group to develop recommendations for establishing environmental performance metrics at ports. She also works to identify potential innovative partnerships to leverage grant funds for environmental projects. Her technical expertise is in air-quality regulation (mobile and stationary sources) and the development of scientific and financial models. She holds a Master degree in Biology from the State University of New York at Stony Brook, as well as Bachelor degrees in Biology and in Business Administration from the University of Washington.

PROGRAM | WEDNESDAY JUNE 11 >>>>>

7:30 Registration & Breakfast

8:30 Welcoming address: **Mel K. Norton**, Mayor of Saint John

8:45 PORTS MOVE TOWARDS GREATER SUSTAINABILITY (Opening Session)

- > **Moderator: Jim Quinn**, CEO, Saint John Port Authority
- > **Kurt Nagle**, President & CEO, AAPA
- > **Paul MacIsaac**, Senior VP, Halifax Port Authority
- > **Mario Girard**, CEO, Quebec Port Authority

10:00 Coffee break & exhibition visit

10:30 AIR EMISSIONS (SHIPOWNERS)

- The Canadian fuels industry and its role to improved emissions in the marine shipping sector
> **Gilles Morel**, Canadian Fuels Association
- Monitoring, reporting and reducing air emissions from marine operations
> **Till Stoeckenius**, Environ International Corporation
- The SmartWay Transport Partnership's new marine tool
> **Jennifer Tuthill**, Natural Resources Canada

ENVIRONMENTAL CRISIS MANAGEMENT / COMMUNITY RELATIONS (PORTS)

- A case study at Fairview Bay on environmental crisis management
> **Jason Scherr**, Prince Rupert Port Authority
- Environmental leadership: crisis management and environmental release
> **Mark Gillan**, Emergency Solutions International
- Stakeholders outreach at the St. Lawrence Seaway Management Corporation
> **Jean Aubry-Morin**, St. Lawrence Seaway Management Corporation

12:00 Lunch

1:30 PARTNERSHIPS AND COLLABORATION IN SUPPORT OF FINANCING SUSTAINABILITY

- Improving performance and profitability: innovative financial models for fuel-saving retrofits
> **Peter Boyd**, Carbon War Room
- Innovative financing solutions for ship emissions compliance
> **Pace Ralli**, Clean Marine Energy
- Strategies for recognizing ports for leadership in environmental performance, community partnership and economic sustainability
> **Christina Wolfe**, Environmental Defense Fund

3:00 Coffee break & exhibition visit

3:30 TECHNOLOGY FORUM

Short presentations on new technologies and innovation by GreenTech 2014 exhibitors

6:30 CERTIFICATION CEREMONY & DINNER

Seated dinner at the Diamond Jubilee Cruise Terminal, Guest Speaker: > **Mylène Paquette**

PROGRAM | THURSDAY JUNE 12 >>>>>

7:30 Registration & Breakfast

8:30 WASTE MANAGEMENT AND SUSTAINABLE SHIP RECYCLING (SHIPOWNERS)

- Safe ship towing and recycling
> **Wayne Elliott**, Marine Recycling Corporation
- Green Passport: a ship owner's first impressions and experience
> **Donald Shepherd**, Atlantic Towing Limited
- Life cycle assessment of waste management on ships
> **Isabelle Curau**, Ellio

INCENTIVE SCHEMES TO IMPROVE ENVIRONMENTAL PERFORMANCE IN SHIPPING

- Workshop for ports
Panel followed by roundtable discussion:
> **Peter Boyd**, Carbon War Room
> **Jason Scherr**, Prince Rupert Port Authority
> **Anuj Chopra**, RightShip Americas

10:00 Coffee break & exhibition visit

10:30 PROTECTION OF MARINE ECOSYSTEMS (SHIPOWNERS)

- Protecting the Great Lakes from invasive species – why salinity helps
> **Dr. David Reid & Craig Middlebrook**, Saint Lawrence Seaway Development Corporation
- A mariner's guide to whales in the Northwest Atlantic
> **Véronique Nolet**, Marine Mammal Observation Network
- Underwater noise from commercial shipping and its future in green shipping and international policy
> **Alexis Rudd**, Consortium for Ocean Leadership

IMPROVING SUSTAINABILITY IN COASTAL AREAS THROUGH COLLABORATIVE EFFORTS (PORTS)

- Advancing port sustainability through collaboration: the West Coast ports sustainable design and construction guidelines
> **Noeleen Tillman**, International Institute for Sustainable Seaports
- Industry leadership in coastal research through effective partnerships
> **Geoffrey Harding**, Ducks Unlimited Canada & **Dr. Michael Stokesbury**, Acadia University
- Right Whales and their Allies: the Canadian Stewardship Connection
> **Maira Brown**, New England Aquarium & Canadian Whale Institute

12:00 Lunch

1:30 TRANSPORTATION OF OIL AND GAS: CHALLENGES AND SOLUTIONS

Guest Speakers: **Paul Browning**, President and CEO, Irving Oil & **François Poirier**, President, Energy East Pipeline, TransCanada

- Port Metro Vancouver's liquid bulk handling information tour to Norway
> **Jim Crandles**, Port Metro Vancouver
- The ShoreZone Port Response Tool: a response and operations systems for spill response in ports
> **John Silva**, Moran Environmental Recovery

3:00 Closing Remarks

GREEN MARINE | PARTICIPANTS



SHIPOWNERS

- Algoma Central Corporation
- Atlantic Towing Limited
- Canada Steamship Lines
- Canfornav
- Cogema
- Croisières AML
- CSL International
- CTMA Group
- Fednav Limited
- Groupe Desgagnés
- Island Tug and Barge
- Lower Lakes Towing Limited
- McAsphalt Marine Transportation Ltd.
- McKeil Marine
- North Arm Transportation
- Ocean Group
- Oceanex
- Reformar
- Seaspan ULC
- SMIT
- Société des Traversiers du Québec
- SVITZER Canada
- TBS Shipping Services Inc./Roymar Ship Management

- Saint John Port authority, NB
- Saguenay Port Authority
- Sept-Îles Port Authority
- St. John's Port Authority, NL
- Thunder Bay Port Authority
- Toronto Port Authority
- Trois-Rivières Port Authority
- Windsor Port Authority
- St. Lawrence Seaway Development Corp.
- St. Lawrence Seaway Management Corp.



TERMINALS & SHIPYARDS

- Bunge of Canada
- Ceres Terminals Inc.
- Cliffs Natural Resources Inc.
- Empire Stevedoring Company Limited
- Federal Marine Terminals
- Fraser Surrey Docks
- Imperial Oil (Esso)
- IOC (Iron Ore)
- Logistec Corporation
- Maher Terminals Holding Corp.
- Marine Recycling Corporation
- McAsphalt Industries Limited
- Montreal Gateway Terminals Partnership
- Neptune Terminals
- Norcan Petroleum Group
- Northern Stevedoring
- Ocean Industries (shipyard)
- Pacific Coast Terminals
- Pinnacle Renewable Energy (Westview Terminal)
- Porlier Express
- Ridley Terminals Inc.
- Rio Tinto Alcan (Port-Alfred)
- Seaspan ULC (shipyards)
- Squamish Terminals
- Sterling Marine Fuels (Windsor Terminal)
- Suncor (Montreal Refinery)
- Termont Montreal
- Valero (Jean-Gauvin Refinery)
- Valleytank
- Valport
- Westridge Terminal (Kinder Morgan Canada)
- Westshore Terminals



PORTS & SEAWAY

- Cleveland-Cuyahoga County Port Authority
- Duluth Seaway Port Authority
- Greater Victoria Harbour Authority
- Halifax Port Authority
- Hamilton Port Authority
- Illinois International Port District
- Montréal Port Authority
- Nanaimo Port Authority
- Port Metro Vancouver
- Port of Gulfport (Mississippi State Port Authority)
- Port of Indiana - Burns Harbor
- Port of Milwaukee
- Port of Seattle
- Port of Valleyfield
- Prince Rupert Port Authority
- Québec Port Authority

GREEN MARINE | ASSOCIATIONS

- American Association of Port Authorities
- American Great Lakes Ports Association
- Association of Canadian Port Authorities
- BC Wharf Operators' Association
- Canadian Ferry Operators Association
- Canadian Shipowners Association
- Chamber of Marine Commerce
- Chamber of Shipping of British Columbia

- Council of Marine Carriers
- International Ship-Owners Alliance of Canada
- Ontario Marine Transportation Forum
- Shipping Federation of Canada
- St. Lawrence Economic Development Council
- St. Lawrence Shipoperators
- U.S. Great Lakes Shipping Association

GREEN MARINE PARTNERS



INDUSTRY SUPPLIERS

- ABB Turbocharging
- American Bureau of Shipping
- American Chemical Technologies Inc.
- Bell Marine & Mill Supply
- BG Group
- Blue Seal Inc.
- Canadian International Bureau of Shipping
- Concept Naval
- Conflow Technologies
- DNV GL
- Drew Marine
- Envirochem
- Envirolin Canada
- Environmental Solutions Inc.
- Filtramax
- FRS Instrumentation & Controls Inc.
- Gaz Metro
- Hemmera
- Hermont Marine
- Hydrex LLC
- International Paint
- Ionada
- Jastram Technologies Ltd
- KRAL
- Lloyd's Register North America
- Marine and Offshore Canada

- Marine Clean Ltd.
- MSI3D
- OpDAQ Systems
- PESCA Environnement
- Progress Energy Canada Ltd, Pacific Northwest LNG
- Pronova Systems Inc.
- Quickload CEF
- RBM HoldSolutions
- RSC Bio Solutions
- Schneider Electric
- Scott's Marine Interiors
- Seagulf Marine Industries Inc.
- S.I.G.E.I.M Inc.
- SNC-Lavalin Environment
- Techsol Marine
- The Glosten Associates
- Thordon Bearings Inc.
- Tidal Transport & Trading
- Total Marine Solutions Inc.
- Urgence Marine Inc.
- V.Ships Canada Inc.
- VapCor Inc.
- Ventus Development Services Inc.
- Vickers Oil
- Wärtsilä Canada
- WSP Canada

SHIPPERS

- Aluminerie Alouette
- Canadian Salt Company Limited
- Tata Steel

OTHER ORGANIZATIONS

- CSMOIM
- Corp. des pilotes du St-Laurent Central
- Corp. of Lower St. Lawrence Pilots
- Georgian College's Great Lakes International Marine Training Centre
- Great Lakes Pilotage Authority
- Laurentian Pilotage Authority
- Maritime Innovation
- Pacific Pilotage Authority
- Rightship Americas
- Western Canada Marine Response Corporation

GREEN MARINE SUPPORTERS



GOVERNMENTS

- Environment Canada
- 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

MUNICIPALITIES

- Board of Harbor Commissioners of the City of Milwaukee
- City of Bécancour
- City of Calixa-Lavallée
- City of Contrecoeur
- City of Longueuil
- 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
- Communauté métropolitaine de Québec
- Great Lakes and St. Lawrence Cities Initiative
- Marguerite-D'Youville MRC

ENVIRONMENTAL GROUPS AND NGO'S

- Carbon War Room
- Ducks Unlimited Canada
- Georgia Strait Alliance
- Georgian Bay Forever
- International Secretariat for Water
- Les Amis de la vallée du Saint-Laurent
- Nature Québec
- ONE DROP
- Réseau d'observation des mammifères marins (ROMM)
- Sedna Foundation
- Stratégies Saint-Laurent (6 ZIP Committees)
- World Wildlife Fund Canada

OTHERS

- CPEQ
- EcoMaris
- Northwest Community College
- Promotion Saguenay
- Société de promotion économique de Rimouski
- St. Lawrence River Institute of Environmental Sciences
- Technopole Maritime du Québec
- Vancouver Aquarium

NOTES





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