PRESENTS
JUNE 10, 11 & 12
SAINT JOHN
NEW BRUNSWICK
GREEN MARINE
PRESERVES
SUSTAINABILITY THROUGH INNOVATIVE PARTNERSHIPS
OFFICIAL PROGRAM
GREENTECH 2014 ENVIRONMENTAL CONFERENCE
SAINT JOHN NEW BRUNSWICK
JUNE 10, 11 & 12
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 Canadian fuels industry and its role to improved emissions management in the shipping sector

By Gilles Monel, 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. The IMO’s presentation will focus on BC caused by transport. As a result of the high-reflective nature 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 were present. It is also generally accepted that BC can be transported from locations within close proximity to the Arctic, as well as from further away, possibly as south as 40°N. Shipping emissions have been highlighted as the RIO committee increased regulation, particularly in the Arctic because of the impacts on the marine environment. However, shipping north of 60°N currently represents only 1% of transported from locations within close proximity to the Arctic, as well as from farther away, mainly in Europe and North America, but also in Asia. The Prince Rupert Port Authority (PRPA) has learned from first-hand experience a number of lessons that can affect community perception during a time of crisis.

Monitoring, reporting and reducing air emissions from marine operations

By Rob Stoodenmeyer, 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 in Fairview Bay that led to a release of mineral oil into third-party property and into the marine environment. The PRPA immediately initiated an Marine Operations Center (SMC) and implemented an emergency response plan, notifying appropriate agencies and engaging various third-party groups to identify containment and cleanup of the oil released to the upland and inland environments. The plan addressed the requirements of applicable regulatory agencies, the needs and concerns of involved third parties, and the public in general. An estimated 50% of the released oil was recovered during this intense joint effort, with no observed mortality to marine organisms. 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.

TheSmartWayTransportPartnership’s new marine tool

By Jennifer Tuthill, National Resources Canada

The SmartWay Transport Partnership is a network launched by the U.S. Environmental Protection Agency in 2004 and administered in Canada by National 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 (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 the 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.

Environmental Crisis Management / Community relations (ports)

A case study at Fairview Bay on environmental crisis management

By 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 in Fairview Bay that led to a release of mineral oil into third-party property and into the marine environment. The PRPA immediately initiated an Emergency Operations Center (EOC) and implemented an emergency response plan, notifying appropriate agencies and engaging various third-party groups to identify containment and cleanup of the oil released to the upland and inland environments. The plan addressed the requirements of applicable regulatory agencies, the needs and concerns of involved third parties, and the general public. An estimated 50% of the released oil was recovered during this intense joint effort, with no observed mortality to marine organisms. 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

By 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. Regulatory and best practices reinforce 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 programs 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 its 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

By Jean-Bailey Morris, St. Lawrence Seaway Management Corporation

The St. Lawrence Seaway Management Corporation seeks to promote the navigation of Great Lakes/St. Lawrence Seaway System, branded as Highway N.O. beyond its traditional commercial boundaries. The objective of the outreach is to underline the SLSCM’s role as a principal steward of this shared water resource, which faces a wide range of compelling demands from a diverse set of stakeholders. The presentation will outline the approach to the project management process in use throughout the SLSCM, covering the assessment, planning, management and evaluation phases, to ensure that all stakeholders 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 (Shippers 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 SLSCM’s stakeholder outreach.
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 monitoring and accountability. The outcomes and costs of adverse environmental impacts at the world’s ports are far-reaching. Environmental benchmarking and recognition programs have been successful in reducing marine pollution and mitigating impacts, while providing positive recognition to participant organizations. Recently, various seaports, 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 is an opportunity 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
3:30 pm Certification Ceremony and dinner
3:30 pm Seated dinner at the Diamond Jubilee Cruise Terminal

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

Safe ship towing and recycling
> Wayne Elliott, Maritime 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, mold and mildew identification, handling/recovery, rescue and retrieval, sampling/testing protocol, and using certified equipment. Towing and dead ship towing preparations are vitally important and the safest 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 upskilling 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 also share some of the insights and ideas from ATL’s plans regarding the application of the SW G. Recyclable notation on new-builds.

Life cycle assessment of waste management on ships
> Isabelle Cornea, Elita

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 green options is limited. Mandated by Green Marine in collaboration with its members, the Elita 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 Schery, Prince Rupert Port Authority
> Anuj Chopra, RydeShip

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 on-board treatment systems. The proposed continued use of salinization 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 invasion 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 on the included information about both vessel transit 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 identify what mariners should know about whales and their behavior 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 Clean Shipping

With increasing evidence of the negative ecological impacts of underwater sound, policy is advancing in the area of monitoring and mitigating this phenomenon. 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 operators are being called to reduce sound exposure, including monitoring and mitigating issues. The Green Marine 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 mammals, the main sources of underwater sound, the recent evolution in international policy, and the future of underwater noise within green shipping.
Advancing port sustainability through collaboration: the West Coast ports sustainable design and construction guidelines

**Roanne Tiltman**, International Institute for Sustainable Development

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 towards defining sustainable industrial development management systems, guiding principles and policies. This presentation will review the process of creating a Joint Committee of seven ports: Portland, Seattle, Tacoma, Los Angeles, Vancouver (U.S.), San Diego, and Long Beach agreed to form the Joint Committee 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 Committee to create sustainable practices that could be applicable to all.

Right Whales and their Allies: the Canadian Stewardship Connection

**Moira Brown**, New England Aquaculture & Canadian Whale Institute

Ocean-going vessels pose a threat to large whale species 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. In the Bay of Fundy’s Buffalo Head, a collaborative science-based evaluation of the effectiveness of Fishways (155 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 benefiting the overall productivity of rivers and estuaries in the Bay of Fundy and the greater Gulf of Maine.

Transportation of Oil and Gas: Challenges and Solutions

**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 Cansoport 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.

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

**John Silk**, Moran Environmental Recovery

The ShoreZone Response Tool (SRT) is a response and operations tool based on high-resolution pre-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 180,000 kilometres of Pacific Northwest shoreline (Oregon, Washington, British Columbia and Alaska). The SRT has a “click-click-easy” interface to access the high-resolution video 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), 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 Anchorage 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 their safety and environmental management culture.
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- **ABB**
  - Turbocharging is at the heart of ABB's operation, providing solutions and services to meet the needs of the maritime industry. ABB operates over 100 certified turbocharger service stations in more than 55 countries via an online network linked to its head office in Baden, Switzerland. ABB has direct access to the case history of every one of the more than 180,000 turbochargers ensures proactive support in real time.
  - Booth: 18

- **American Chemical Technologies, Inc.**
  - Committed to providing high-performance lubricants for the maritime industry. The company's 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.
  - Booth: 9

- **Canadian Sailings & Transportation magazine**
  - Celebrates its 30th anniversary in 2013. The magazine provides national/regional trade and transportation news, profiles on industry personalities, companies and ports. They are the preferred publication for transportation and logistics professionals, distributed coast to coast in Canada and beyond. The publication provides coverage of the North American and international maritime industry, the Navys and the Merchant Marine. Contributing editors meet all the needs of the maritime sector, providing comprehensive news, features and analysis.
  - Booth: 14

- **Cavotec**
  - A global engineering group that enables industries worldwide to improve productivity, safety and sustainability. Cavotec's innovative shore-to-ship electrical power systems, automated mooring technology, XpressKane™, and E-RTG systems (Electric Rubber Tyre Gantry Crane) ensure safe, clean and efficient operations at ports all over the world.
  - Booth: 6

- **Concept Naval**
  - 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.
  - Booth: 4

- **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 offshore platforms, forestry, railway, agriculture and hydropower, one ocean to the other.
  - Booth: 19

- **Filtramax**
  - Industrial filtration specialist, Filtramax represents major manufacturers of filtration solutions in hydraulic and fuel, 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.
  - Booth: 20

- **Hug Engineering**
  - Hug Engineering's core business is the development, manufacturing, engineering, sales, and servicing of exhaust gas after-treatment 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, ferrets, and tugboats to ocean going vessels and cruise ships.
  - Booth: 2

- **Jastram Technologies Ltd. (JTL)**
  - 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.
  - Booth: 17

- **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.
  - Booth: 13

- **OpEd**
  - Systems specializes in ship-based 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 OpEd assists its customers to get accurate performance.
  - Booth: 16

- **OpEDA**
  - Systems specializes in ship-based 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 OpEDA assists its customers to get accurate performance.
  - Booth: 1

- **OpEDA**
  - Systems specializes in ship-based 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 OpEDA assists its customers to get accurate performance.
  - Booth: 15

- **Optima Oils**
  - A private independent UK company established in 2012, specializing in the development and introduction of Environmentally Acceptable Lubricants (EALs) for the Marine sector and is now a major player in the market having supplied more than 1300 vessels worldwide, and having gained approvals and acceptances from many of the leading OEMs. Markets served include ferries, tugs, prawns, hydraulic and greases, in more than 60 countries.
  - Booth: 1

- **Vickers Oils**
  - Vickers Oils is a private independent UK company established in 1962, specializing in the introduction of Environmentally Acceptable Lubricants (EALs) for the Marine sector and is now a major player in the market having supplied more than 1300 vessels worldwide, and having gained approvals and acceptances from many of the leading OEMs. Markets served include ferries, tugs, prawns, hydraulic and greases, in more than 60 countries.
  - Booth: 6

- **Wärtsilä**
  - 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, Remanufacturing Services, Propulsion Services, Operation & Management, Automation Services, Ship Services and Training Services.
  - Booth: 15
The Speakers

Jean Aubry-Marin, St. Lawrence Seaway Management Corporation

Jean Aubry-Marin was named External Historian, 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 is a Senior Advisor and Founder at Carbon War Room in 2009 where he and Richard Branson and茅menter on founders decided to focus on accelerating profitable climate change solutions through green 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 Virage Mobile South Africa. Mr. Boyd 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 interaction incidents with right whales. Her work with the Government of Canada and the International Polar Bear Committee has resulted in the implementation of a conservation measure in the Bay of Fundy to significantly reduce the probability of vessel striking right whales. Dr. Brown is a graduate of McGill and Dalhousie 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 (Arctic Bay, Inuvik, Beaufort Sea). She has held teaching and research positions at the Galapagos Islands, and the Peconic Estuary Center for Coastal Studies. Recognition for her research and conservation efforts has included a 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 Kingdom as Executive Global Leadership experiences 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 Motors in Krefeld, Germany, and Vice President, Turbocharged Products, at Caterpillar’s Solar Turbines Division in San Diego, California. He is also 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, 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, 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, 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, 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, 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, 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, vetting team, and foster customer relations in the Americas region.

Jim Cryland, Port Metro Vancouver

As Director of Planning and Development since 2011, Jim Cryland promotes initiatives to increase capacity at Port Metro Vancouver. He is in charge of planning for land use and transportation, as well as a permit process for new development. He became Director of Real Estate in 2006 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, DRA

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 (CIRAIG) 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 Boardroom (Ilia) for the past five years, she specialises 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 years 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 is a founder Marine Recycling Corp, the world’s first ISO 14000 certified ship breaker, in December 2000. His two younger sons manage the ship-recycling operations now. They have 10 years of experience and have recycled 30 vessels so far. His 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 Gilliam, Emergency Solutions International

Before founding Emergency Solutions International, Mark Gillian served the Saint John Fire Department, ending his 26-year career as Deputy Chief and Acting Fire Chief. He served eight years on the Canadian Forces. As a Hazmat 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 Simulation Training at Nova ASAD, joined 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 collector surge in their status within the province. He served as Chairman and CEO of Troux Tecno (now a division of Open Text) from 2001 to 2007, a software development firm currently and one of the world’s largest media companies. Mr. Girard previously headed Grupo Tecno, 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 TESSOL Business Solutions in 2001. Mr. Girard’s early business efforts have been recognized by the Young Entrepreneurs Argentine-Sud-Amerique Award for Quebec. He was also named 50 Personality of the Year 2008 by the federation TIQ. Let’s re-member the world’s first Urban Planner in 1991, his positions have included Manager of Planning, and Director of Planning. However, he also manages a hazardous waste recycling facility specializing in battery waste, as well as two scrap metal recycling yards – all within the Niagara Region.

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 wildlife conservation mission. These efforts include the establishment of the Bluegrass Research Center at the upper end of the Bay of Fundy in the Moncton Marshes. This coastal wetland and 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 port sector in Boston, New York and Miami. He currently serves on the National Association of Canadian Manufacturers & Exporters Nova Scotia, as well as a member of Finance Committee and the Post Chair of the Finance Committee of the Association of Canadian Port Authorities.

Craig Middlebrook, Saint Lawrence Seaway Development Corporation

Craig Middlebrook serves in the Deputy Administration of the Saint Lawrence Seaway Development Corporation at the U.S. Department of Transportation. He also serves as the agency’s Chief of Staff, Acting Chair, 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 regulations.

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. For a few years, he joined the Canadian Petroleum Products Institute (Canadian Fuels Association’s predecessor) to represent the industry in dealings with various levels of government and stakeholders on matters such as 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 President and CEO of the American Association of Port Authorities (AAPA). He began working at AAPA, an alliance of the leading public port authorities throughout the Western Hemisphere, in 1985. Prior to joining AAPA, Mr. Nagle served as Director of International Affairs 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 Poppler Club of the United States, and is a former commissioner of PANAC, the International Navigation Congress. Mr. Nagle holds a Master in Economics from George Mason University.
Port Authority (PRPA). The PRPA is guided in all of its activities by key principles of environmental sustainability, including pollution prevention, the preservation of biodiversity, and the protection of the marine environment. 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. His work focuses on developing strategies to reduce the environmental impact of port operations and to improve the sustainability of port-related activities. His expertise includes the development of emission reduction policies and the implementation of innovative technologies to reduce pollution.

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 Prince Rupert Port Authority on the issue of noise from commercial shipping. Her research focuses on the impact of noise on marine mammals and the development of strategies to reduce the noise footprint of commercial shipping.

Jim Quinn, Port Saint John

Jim Quinn is the President and CEO of the Port of Saint John. He has over 30 years of experience in the shipping industry and was appointed President in 2010. During his tenure, he has focused on developing strategies to reduce the environmental impact of port operations and to improve the sustainability of port-related activities. His work includes the development of emission reduction policies and the implementation of innovative technologies to reduce pollution.

Pace Ralli, Clean Marine Energy

Pace Ralli is the Co-founder of Clean Marine Energy. He obtained a BSc from Middlebury College and MBA from Dartmouth College’s Tuck School of Business. In 2009, he founded Clean Marine Energy to develop innovative technologies to reduce the environmental impact of commercial shipping. His work focuses on developing strategies to reduce the noise footprint of commercial shipping.

David Reid, Saint Lawrence Seaway Development Corporation

David Reid has a PhD 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 career. He currently provides scientific advice related to ballast water and invasive species as a contractor for the Saint Lawrence Seaway Development Corporation.

Till Stoeckenius, Environ International Corporation

Till Stoeckenius is a Senior Director at Environ International Corporation. He has analyzed air-quality issues for industry and government clients for over 30 years. Much of his recent work has focused on analyzing the impacts of commercial shipping on the marine environment. His work includes the development of strategies to reduce the noise footprint of commercial shipping.

Noelleen Tillman, International Institute for Sustainable Seaports

Noelleen Tillman is the Executive Director of the International Institute for Sustainable Seaports, which provides port-specific sustainability-related information, tools, databases, and best practices for the maritime industry. She has over 15 years of experience working with the shipping industry and has focused on developing strategies to reduce the environmental impact of port operations and to improve the sustainability of port-related activities.

Jennifer Tuthill, Natural Resources Canada

Jennifer Tuthill is a Senior Manager in the Office of Energy Efficiency at Natural Resources Canada. She has over 20 years of experience working with the shipping industry and has focused on developing strategies to reduce the environmental impact of port operations and to improve the sustainability of port-related activities.

Christina Wolfe, Environmental Defense Fund

Christina Wolfe works on port and transportation projects at the Environmental Defense Fund (EDF). She currently manages an executive-level port stakeholder group to develop recommendations for establishing environmental performance metrics at ports. She also works to identify potential innovation partnerships to leverage grant funds for environmental projects. Her technical expertise is in air-quality regulations (models and stationary sources) and the development of scientific and financial models. She holds a Master of Science in Biology and a Bachelor of Science in Biology and a Bachelor of Science in Business Administration from the University of Virginia.
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 Caron, Elko

ENVIRONMENTAL 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
  • 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 Hardy, Ducks Unlimited Canada & Dr. Michael Stokesbury, Acadia University
  • Right Whales and their Allies: the Canadian Stewardship Connection
    > Moira 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

• Saint John Port Authority, NB
• Saguenay Port Authority
• Sept-Iles 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 & SHIPIYARDS

• Bayonne of Canada
• Ceres Terminals Inc.
• Cliff’s Natural Resources Inc.
• Empire Stevedoring Company Limited
• Federal Marine Terminals
• Fraser Surrey Docks
• Imperial Oil (Esso)
• JOC (Iron Ore)
• Logise Marine
• Maher Terminals Holding Corp.
• Marine Recycling Corporation
• McAlpine Industries Limited
• Montreal Gateway Terminals Partnership
• Neptune Terminals
• Norcan Petroleum Group
• Northern Stevedoring
• Ocean Terminals (Shipyards)
• Pacific Coast Terminals
• Pionnere Stevedoring Company (Westview Terminal)
• Pierpoint Express
• Ridley Terminals Inc.
• Rio Tinto Alcan (Port-Alfred)
• Seaspan ULC (shipyards)
• Squamish Terminals
• Suncor Energy (Windsor Terminal)
• Termont Montreal
• Termont Saint-Maurice
• Valport
• Valley Tank
• Valpoint
• Westridge Terminal (Kinder Morgan Canada)
• Westshore Terminals

GREEN MARINE | SUPPORTERS

• City of Saint-Amable
• City of Sept-Îles
• City of Sept-Iles
• City of Sept-Iles

GREEN MARINE | SHIPOWNERS

• Algoma Central Corporation
• Atlantic TowIng Limited
• Canada Steamship Lines
• Canfornav
• CanMarine
• Canadian Ferry Operators Association
• Coastline Terminals
• CSL International
• CMAQ Group
• Fednav Limited
• Groupe Desgagnésés
• Island Tug and Barge
• Lower Lakes Towing Limited
• McAlpine Marine Transportation Ltd.
• McKinn Marine
• North Arm Transportation
• Ocean Group
• Oceantex
• Reformar
• Seaspan ULC
• SME
• Société des Travailleurs du Québec
• SVITEC Canada
• TBS Shipping Services Inc./Raymar Ship Management

GREEN MARINE | INDUSTRY SUPPLIERS

• ABB Turbocharging
• American Bureau of Shipping
• American Chemical Technologies Inc.
• Bell Marine & Mill Supply
• BG Group
• Blue Sand Inc.
• Canadian International Bureau of Shipping
• Concept Naval
• Conflow Technologies
• DNV GL
• Drew Marine
• Environchem
• Environment Canada
• Environmental Solutions Inc.
• Filtrax
• FRC Instrumentation & Controls Inc.
• Gaz Metro
• Hemmera
• Hermit Marine
• Hydros LLC
• International Paint
• Ionada
• Jantuz Technologies Ltd
• KBRAL
• Lloyd’s Register North America
• Marine and Offshore Canada

GREEN MARINE | SHIPPERS

• Alliance Reservoir
• Canadian Salt Company Limited
• Tata Steel

OTHERS

• CPGQ
• EcoMar
• Northwest Community College
• Promotion Sagarine
• Société de promotion économique de Rimouski
• St. Lawrence River Institute of Environmental Sciences
• Technopole Maritime du Québec
• Vancouver Aquarium