



GREEN MARINE UPDATE

**AAPA ENVIRONMENT COMMITTEE MEETING
TACOMA, APRIL 2018**

www.green-marine.org

GREEN MARINE IS...



A **voluntary certification program** to reduce environmental footprint of marine operations by

- exceeding regulatory compliance
- promoting a culture of continuous improvement

A **benchmarking tool** to measure performance

A **partnership** initiative involving stakeholders

OUTLINE

- Membership Growth
- 2017 Certification Process
- Publications
- Meetings
- More mtgs
- GreenTech 2018



NEW MEMBERS SINCE NOVEMBER 2017



3 new participants (total 118)

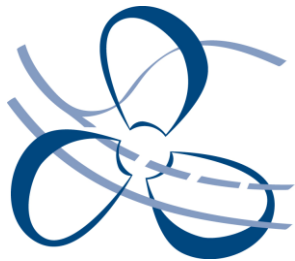
- Halterm Container Terminal (Halifax, NS)
- Puget Sound Pilots (1st pilotage association to join as participants)
- Servitank (Becancour, QC)



NEW MEMBERS SINCE NOVEMBRE 2017



- 5 new partners (73)



The Energy Conservation Group



McElhanney

- 4 new supporters (68)



Department of Commerce



PARC MARIN
DU SAGUENAY-SAINT-LAURENT
Canada Québec



- 2 new associations (22)





WHAT HAVE BEEN UP TO?

www.green-marine.org

CERTIFICATION PROCESS FOR 2017



- ✓ **January** – 2017 Self-Evaluation Guides Released
 - ✓ Three teleconference workshops for participants on certification process (ship owners, landside English, and landside French)
- ✓ **February** – mandatory training for verifiers (Eng. and French)
- ✓ **March 15** – Summary Report Form due date
- ✓ **April** – PINGING! And Verification Support for **May 4** due date
- ✓ Results to be unveiled on May 31, 2018 at GreenTech

GREEN MARINE COMMUNICATIONS



November, 2017

- Green Marine Magazine - Published twice a year – archive at <https://www.green-marine.org/news/magazines/>

December

- Press release issued on Ship Owners' GHG Reporting Initiative
- Green Marine newsletter, The Green Wave – Subscribe and find archive at www.green-marine.org/news/the-green-wave/

January

- 2018 Program Summaries: Ship Owners, Ports & Seaway, Terminals & Shipyards

February

- Green Marine newsletter

March

- GreenTech Preliminary Program posted

Follow us on Twitter: [@Gmarine_Averte](https://twitter.com/Gmarine_Averte)



GREEN MARINE MEETINGS

December

- Ship owner Technical Committee
- West Coast Advisory Committee
- Board of Directors

January

- Team Meeting all together in Quebec City
- Great Lakes Advisory Committee

February

- Social acceptability Workgroup (English Mtg)

March

- Associations Engagement Mtg – teleconference
- Board of Directors
- Ports & Terminals' GHG&AP Workgroup Mtg

Upcoming

- St. Lawrence Advisory Committee
- Ship Recycling Workgroup
- Social acceptability Workgroup (French Mtg)
- West Coast Advisory Committee

Workgroup
Technical Committee
Advisory Committee
Board of Directors



OUTREACH & NETWORKING EVENTS

November

- Green Ship Technology Conf in NY (DB, ML)

December

- World Ocean Council Sustainable Ocean Summit in Halifax (DB, TG)
- Washington Blue Kick-Off in Seattle (EK)

January

- Maritime Day in Olympia, WA (EK)

February

- Save the River annual conference in Clayton, NY (DB)
- Great Lakes Waterways Conference in Cleveland (ML, TG)
- North Atlantic Right Whale Mtg in Boston (VN)
- Shipping Federation of Canada Mariners' Workshop in Montreal (VN)
- American Waterways Operators (AWO) Mtgs in Seattle (EK)
- LNG and Alternative Fuels Symposium in Seattle (EK)

March

- Environmental Managers' Assoc of BC Workshop in Vancouver (EK)
- Vessel Speed Reduction awards ceremony in LB, CA (VN)
- CMA Conference in Stamford, CT (DB, ML)

DB = David Bolduc
Executive Director

ML = Manon Lanthier
Communications
Manager

Program Managers
VN = Veronique Nolet
TG = Thomas
Gregoire
EK = Eleanor Kirtley



ANNUAL CONFERENCE



- 2008 → Montreal
- 2009 → Toronto
- 2010 → Montreal
- 2011 → Chicago
- 2012 → Quebec City
- 2013 → Vancouver
- 2014 → Saint-John
- 2015 → Seattle
- 2016 → Quebec City
- 2017 → Fort Lauderdale

GreenTech 2018:

Vancouver, B.C.

May 30 – June 1, 2018

WEDNESDAY, MAY 30

12:30 pm **BC FERRIES FMU TOUR** REGISTRATION & EXHIBITORS SETUP

5:00 pm **OPENING RECEPTION** – Sponsored by Neptune Bulk Terminals Ltd. -Exhibit hall

THURSDAY, MAY 31

7:30 am **REGISTRATION & BREAKFAST** GREEN MARINE AGM (by invitation) -Exhibit hall -Point Grey

BUILDING PARTNERSHIPS FOR SUSTAINABLE SHIPPING -Pinnacle 1 & 2

Welcoming address: David Bolduc, Executive Director, Green Marine

- 8:45 am • Robin Silverster, CEO, Vancouver Fraser Port Authority
- Kurt Beckett, Deputy CEO, Northwest Seaport Alliance
- Megan Leslie, CEO, World Wildlife Fund Canada

10:00 am **COFFEE BREAK & EXHIBITION VISIT** -Exhibit hall

AQUATIC INVASIVE SPECIES (BIOFOULING) -Point Grey

Moderator: Carleen Lyden Walker, NAMEPA

- 10:30 am • Paul Holthus, World Ocean Council – Glofoing project: addressing biofouling and AIS through industry collaboration
- Jason Scherr, Prince Rupert Port Authority & Tom Therriault, Fisheries and Oceans Canada – AIS program at the Port of Prince Rupert in collaboration with DFO, NWCC, and the Smithsonian
- Simon Doran, HullWiper Limited – The hull cleaning evolution and battle against cross pollination

IMPROVING WATERFRONT COEXISTENCE -Pinnacle 1 & 2

Moderator: Debbie Murray, Association of Canadian Port Authorities

- Kim Stegeman-Lowe, Squamish Terminals – Dock rebuilt after fire
- Jon Sloan, Port of Seattle – Becoming carbon neutral: designing a kelp, eelgrass and shellfish carbon sequestration pilot project
- Lisa Dooling, Neptune Bulk Terminals – Measuring and Building Community Trust

12:00 pm **LUNCH** -Pinnacle 1 & 2

PLENARY PANEL: UNDERWATER NOISE AND MARINE MAMMALS -Pinnacle 1 & 2

Moderator: Bruce Burrows, Chamber of Marine Commerce

- 1:15 pm • Krista Trounce, Vancouver Fraser Port Authority – ECHO Program vessel slowdown trial: results and next steps
- Richard Huey, Washington State Ferries & Leslie James, British Columbia Ferry Services Inc. – British Columbia and Washington State Ferries protection of marine mammals during terminal construction and ferry sailings
- Lee Kindberg, Maersk Line – Sound, emissions and energy efficiency: Is there an optimal solution?
- Michael Jasny, Natural Resources Defense Council – Title TBC
- Michelle Sanders, Transport Canada – Understanding and managing underwater vessel noise: supporting recovery of the southern resident killer whale and other endangered whales

3:00 pm **COFFEE BREAK & EXHIBITION VISIT** -Exhibit hall

SUSTAINABLE DEVELOPMENT IN TIMES OF TRAFFIC GROWTH -Point Grey

Moderator: Kevin Obermeyer, Pacific Pilotage Authority

- 3:30 pm • Brian Kirk and Scott J. Ferguson, Washington State Department of Ecology – Vessel traffic and risk analysis for Washington waters
- Edward Page, Marine Exchange of Alaska / Buddy Custard, Alaska Maritime Prevention and Response Network – Implementation of risk mitigation measures and response options in the Pacific
- Jennifer Sletten, ProtectedSeas – Marine Managed Area Mapping - Creating a comprehensive public resource to explore MMA and their associated rules and regulations
- Monica Hilborn, Environment and Climate Change Canada – Visualizing Marine Emissions in Canadian Waters

INTEGRATING SUSTAINABILITY WITHIN CORPORATE CULTURE -Pinnacle 1 & 2

Moderator: Thomas Gregoire, Green Marine

- Stephanie Bertels, The Embedding Project / Centre for Corporate Governance and Sustainability – Embedding sustainability into culture
- Giles Pettifor, Port of Hueneme/Oxnard Harbor District Port – Port Hueneme: a case study of integrating sustainability into the operations of a working seaport
- Joshua Berger, Washington State – Washington Maritime BLUE: strategy for accelerating innovation for sustainable maritime industry

6:30 pm **CERTIFICATION COCKTAIL** – Sponsored by GCT Global Container Terminals Inc. -Vancouver Aquarium

FRIDAY, JUNE 1

7:30 am **BREAKFAST & EXHIBITION VISIT** -Exhibit hall

PUBLIC ENGAGEMENT: TOOLS AND STRATEGIES FOR EFFECTIVE INFORMATION SHARING

-Pinnacle 1 & 2

Moderator: Peter Ellis, Clear Seas Centre for Responsible Marine Shipping

- 8:30 am • Peter Keller, TOTE – Communicating change: TOTE's conversion to LNG as a maritime fuel
- Howard Page, North Gulfport Community Landtrust – Decisions affecting communities that live near ports
- Ian Thomson, SCI-Shinglespit Consultants Inc. – Social licence: metrics for measuring social acceptability in the maritime industry

10:00 am **COFFEE BREAK & EXHIBITION VISIT** -Exhibit hall

ADVANCED TECHNOLOGIES FOR LOW CARBON TRANSPORTATION – SHIP OWNERS

-Point Grey

Moderator: Kris Fumberger, RightShip

- 10:30 am • Diego Jaramillo, Waterfront Shipping & Jason Chesko, Methanex Corporation – Methanol, an ultra-clean marine fuel solution
- Daryl Lawes, Seaspan ULC & Harly Penner, Seaspan Ferries – Seaspan Ferries - LNG for marine transportation in BC – The whole emission profile
- Dan Vyselaar, Atlantic Towing Limited – Using data analytics to reduce greenhouse gas emissions from offshore support vessels

ADVANCED TECHNOLOGIES FOR LOW CARBON TRANSPORTATION – PORTS & TERMINALS

-Pinnacle 1 & 2

Moderator: Michael Moltzen, U.S. Environmental Protection Agency

- Kymm Girguls, BC Hydro / Jason Scherr, PRPA / Dorota Kwasnik VFPA – Innovative partnerships: development of the shore power rate in British Columbia
- Benoit Lacroix, Effenco – Port terminal tractors equipped with Effenco's Active Stop-Start™ electric hybrid technology: Rationales, technology description and case studies
- Kit Chope, Virginia Port Authority – Integration of low/zero emission cargo handling equipment into marine terminal operations

12:00 pm **LUNCH** -Pinnacle 1 & 2

SHIPPING OF TOMORROW, TODAY -Pinnacle 1 & 2

Moderator: Eleanor Kirtley, Green Marine

- 1:15 pm • Lars Conradi Andersen, Hayward Group – Developing zero emission ferries
- Christine Rigby, Vancouver Fraser Port Authority – Title TBC
- William Friedman, Cleveland-Cuyahoga County Port Authority – The eco-friendly economy: green maritime, innovative logistics and economic prosperity

2:30 pm **CLOSING REMARKS & WALK TO THE PORT FOR VESSEL BOARDING**

3:00 pm **CRUISE TOUR OF THE PORT OF VANCOUVER** – Sponsored by the Vancouver Fraser Port Authority

GREENTECH 2018
ENVIRONMENTAL CONFERENCE





www.green-marine.org

418-649-6004

ELEANOR KIRTLEY
West Coast Program Manager
Eleanor.kirtley@green-marine.org

SHIP OWNERS GHG REPORTING



Goals:

- Illustrate the program's impact
- Define measurable & quantifiable reduction targets for GHG and other emissions

Method:

- Start as simple as possible at first: ship owners & GHG
- Data compiled at Level 3 for the GHG PI for the baseline year & for 2016
- Compile data from the ship owners that voluntarily agreed to participate

Participation:

- 19 eligible ship owners out of 26 (Level 3 or above reached)
- 12 supplied data for this initiative

SHIP OWNERS GHG REPORTING



Highlights:

- 1st inventory of its kind (regrouping a **variety of ship owners**, on a vast territory)
- High representation (2/3 of eligible ship owners participated, representing **more than 250 vessels**)
- Aggregated results = **Average annual reduction >1%** of the GHG emissions between 2016 and the baseline year
- Demonstrate the ship owners' **energy efficiency improvement**
- Illustrate their **commitment to go beyond compliance** (the analysis report realized without any mandatory reporting regulations)

