

PORT OF MONTREAL SHIP DIFFERENT

ALEXANDRE MONTPETIT

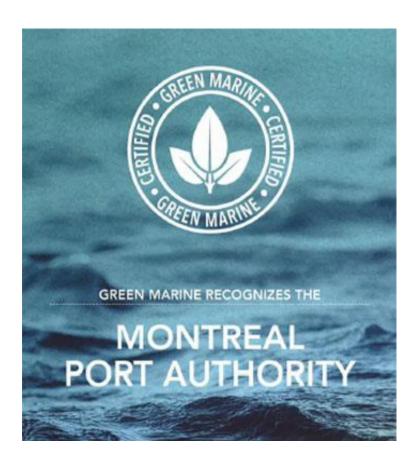
DECEMBER, 2019





#01

GREEN MARINE: ENHANCING ENVIRONMENTAL PERFORMANCE









GREEN MARINE OVERVIEW

History

A decade ago, the marine industry was facing an image problem, due in part to the spread of invasive aquatic species. The Green Marine environmental certification program was then created for the North American marine industry.

The MPA is one of the founding members and has been involved since 2005. Green Marine was founded on October 23, 2007.

It's purpose is to address key environmental issues through 12 performance indicators.

Includes more than 100 participants:

38 Ship Owners

48 Port and Seaway authorities

54 Terminals and Shipyards



GREEN MARINE CERTIFICATION PROCESS

- Demonstrate measurable continuous improvement year after year.
- Complete the annual self-assessment guide.
- Meet performance indicators (6 for MPA); For each performance indicator, a ranking is done on a scale of 1 to 5.
- Audited every 2 years by an external auditor accredited by Green Marine.
- Results will be made public annually.





GREEN MARINE CERTIFICATION ASSESSMENT

Performance Indicators – MPA Reporting

- 1. Invasive aquatic species
- 2. Greenhouse gases and air pollutants
- 3. Prevention of leaks and spills
- 4. Handling and storage of dry bulk
- 5. Reduction of operational impacts
- 6. Environmental leadership
- 7. Residual materials management
- 8. Underwater noises





GREEN MARINE PERFORMANCE INDICATORS

Performance Indicators – MPA Reporting

- Invasive aquatic species
 - Register invasive species
 - Support scientific programs and analyses with sampling of invasive species
- 2. Greenhouse gases and air pollutants
 - Develop a GHG reduction plan
 - Quantify annually the GHG emissions footprint throughout the port territory in order to establish a GHG emissions management plan
- 3. Prevention of leaks and spills
 - Rainwater management plan with the implementation of hydrodynamic separators (stormceptor)
 - Spill response exercises
 - Inspection and preventive maintenance program





GREEN MARINE PERFORMANCE INDICATORS

Performance Indicators – MPA Reporting

- 5. Reduction operational impacts
 - Reduction of dust and sound (sound screens, sampling of noise and/or dust levels, reducing equipment noise levels, etc.).
- 6. Environmental leadership
 - Natural Habitat Restoration Project.
 - Citizens' access to the riverbanks project.
 - Publication of an annual environmental performance report.
- 7. Residual materials management
 - Waste management and reduction plan.
 - Procedures and clauses in contracts systematically included in all construction, demolition and excavation contracts.

| PORT AUTHORITIES 😝 | GHG & AIR POLLUTANTS | SPILL PREVENTION | DRY BULK HANDLING AND STORAGE | COMMUNITY IMPACTS | ENVIRONMENTAL LEADERSHIP | WASTE MANAGEMENT | UNDERWATER NOIS |
|--------------------------------------|-------------------------|---------------------|-------------------------------------|----------------------|-----------------------------|---------------------|-----------------|
| Alabama State Port Authority | 3 | 2 | 2 | 2 | 2 | 2 | n.a. |
| Bécancour Waterfront Industrial Park | 4 | 2 | n.a. | 2 | 4 | 2 | n.a. |
| Belledune Port Authority | 1 | 2 | 1 | 1 | 1 | 1 | 1 |
| Canaveral Port Authority | 2 | 5 | n.a. | 2 | 2 | 2 | 2 |
| Duluth Seaway Port Authority | 3 | 5 | 4 | 4 | 5 | 2 | n.a. |
| Greater Victoria Harbour Authority | 3 | 5 | n.a. | 5 | 3 | 3 | 1 |
| Halifax Port Authority | 5 | 5 | n.a. | 4 | 5 | 5 | 1 |
| Hamilton Port Authority | 3 | 4 | n <u>.a.</u> | 4 | 4 | 3 | n.a. |
| Montreal Port Authority | 5 | 5 | n.a. | 5 | 5 | 4 | n.a. |
| Nanaimo Port Authority | 2 | 3 | n.a. | 2 | 3 | 2 | 1 |
| Northwest Seaport Alliance | 5 | 2 | n.a. | 2 | 4 | 2 | 1 |
| Port Alberni Port Authority | 2 | 2 | n.a. | 2 | 1 | 2 | 1 |
| Port Charlottetown* | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| Port Everglades | 5 | 5 | n.a. | 5 | 5 | 4 | 4 |
| Port Milwaukee | 3 | 2 | n.a. | 2 | 3 | 2 | n.a. |
| Port of Albany | 3 | 2 | n.a. | 2 | 3 | 2 | n.a. |
| Port of Cleveland | 3 | 5 | n.a. | 2 | 4 | 2 | n.a. |
| Port of Corpus Christi | 1 | 2 | 2 | 1 | 2 | 1 | 1 |
| Port of Everett | 1 | 3 | 2 | 2 | 2 | 2 | 1 |
| Port of Gulfport | 2 | 3 | 3 | 2 | 2 | 2 | 1 |
| Port of Hueneme | 3 | 5 | n.a. | 5 | 5 | 5 | 2 |
| Port of Indiana - Burns Harbor | 2 | 4 | n.a. | 3 | 2 | 2 | n.a. |
| Port of Indiana - Jeffersonville | 1 | 2 | 1 | 1 | 1 | 1 | n.a. |
| Port of Indiana - Mount Vernon | 2 | 2 | n.a. | 2 | 1 | 1 | n.a. |
| Port of Monroe | 2 | 2 | 2 | 2 | 2 | 2 | n.a. |
| Port of New Orleans | 2 | 4 | n.a. | 2 | 5 | 2 | n.a. |
| Port of Olympia | 1 | 4 | 2 | 1 | 1 | 1 | 1 |
| Port of San Diego | 5 | 5 | n.a. | 5 | 5 | 5 | 1 |
| Port of Seattle | 5 | 4 | n.a. | 4 | 5 | 5 | 2 |
| Port of Stockton | 2 | 5 | 3 | 2 | 1 | 2 | n.a. |
| Port of Valleyfield | 3 | 2 | n.a. | 2 | 3 | 2 | n.a. |
| PortsToronto | 4 | 2 | 2 | 2 | 4 | 2 | n.a. |
| Prince Rupert Port Authority | 4 | 5 | n.a. | 5 | 5 | 4 | 3 |
| Quebec Port Authority | 5 | 5 | n.a. | 5 | 5 | 5 | n.a. |
| Saguenay Port Authority | 3 | 5 | n.a. | 4 | 3 | 2 | 2 |
| Saint John Port Authority, NB | 3 | 4 | n.a. | 2 | 3 | 5 | 1 |
| Sept-fles Port Authority | 3 | 3 | 3 | 4 | 5 | 2 | 1 |
| St. John's Port Authority, NL | 3 | 3 | n.a. | 4 | 3 | 2 | 1 |
| Thunder Bay Port Authority | 3 | 2 | n.a. | 2 | 3 | 2 | n.a. |
| Trois-Rivières Port Authority | 3 | 4 | n.a. | 2 | 4 | 2 | n.a. |
| Vancouver Fraser Port Authority | 5 | 5 | n.a. | 5 | 5 | 3 | 3 |
| Windsor Port Authority | 2 | 2 | n.a. | 4 | 3 | 2 | n.a. |

GREEN MARINE PERFORMANCE REVIEW

Ranked amongst the leading port authorities

The port of Montreal ranked amongst one of the highest scores in the performance criteria's of the Green Marine certification.

#02 SUSTAINABLE DEVELOPMENT ACTION PLAN





THREE-YEAR SUSTAINABLE DEVELOPMENT ACTION PLAN

The MPA's three-year sustainable development action plan for 2016–2019 is based on five orientations, six objectives, 21 targets and 24 performance indicators.

https://www.port-montreal.com/files/PDF/Developpement-durable/RA-DD2018-ANG.pdf







MPA'S SUSTAINABLE DEVELOPMENT POLICY

SIX GUIDING PRINCIPLES

- Ensure the responsible management of our organization
- 2. Contribute to the prosperity of society
- 3. Provide a stimulating work environment
- 4. Reduce our environmental footprint
- Ensure that safety and security remain core operating values
- 6. Ensure the Port of Montreal's economic mission

EMTL PAGE 11



LNG

MPA'S SUSTAINABLE FIVE ORIENTATIONS

THREE-YEAR ACTION PLAN

- 1. Improve air and water quality
- 2. Enhance the MPA's services.
- Ensure the responsible management of MPA infrastructures and resources
- 4. Offer a mobilizing and safe working environment
- Forge long-term harmonious relationships with our stakeholders

MTL PAGE 12





MAIN ACHIEVEMENTS

- 1. Improve air and water quality
 - Calculate the footprint of GHG emissions on Port territory and then establish a GHG emissions management plan.
 - Liquefied natural gas (LNG) bunkering.
 - Shore power for wintering and cruise ships
- 2. Enhance the MPA's services
 - Ensures its role as an economic driver by innovating, enhancing and diversifying its services.
 - Smart Port initiatives
 - Trucking PORTal web application







MPA'S SUSTAINABLE FIVE ORIENTATIONS

MAIN ACHIEVEMENTS

- Ensure the responsible management of MPA infrastructures and resources
 - Integrated new technologies, practices and sustainable materials into our infrastructure.
 - · Recycling of residual materials.
- 4. Offer a mobilizing and safe working environment
 - Maintain a harmonious work environment by encouraging employee development, involvement and engagement.
 - Yoga & Cardio classes are given on the MPA's premises.
 - Sports teams were formed to enter charitable events.
 - Health and safety programs and continuous training.





MPA'S SUSTAINABLE DEVELOPMENT POLICY

MAIN ACHIEVEMENTS

- Forge long-term relationships with our stakeholders
 - Creation of good-neighborliness committees.
 - Public consultations to inform the community and our partners about our projects.

#PortMTL
THANK YOU

