



**ADVANCING ENVIRONMENTAL EXCELLENCE
IN THE PORT SECTOR**

110th APP Annual Conference in Kaohsiung, Taiwan
Monday, August 12, 2024

GREEN MARINE IS...



A **voluntary certification program** launched in 2007 to reduce the environmental footprint of maritime operations by:

- exceeding regulatory compliance
- promoting a culture of continual improvement



A **benchmarking tool** to measure performance



A **partnership** initiative among stakeholders



Green Marine is the **most comprehensive** environmental program for the maritime industry that exists today.

- Participants from across sectors – ship owners, port authorities, terminal operators, shipyards, and Seaway corporations



- Action plan addressing **key environmental issues** with 14 performance indicators
- Opportunity for **NGO and governmental participation**
- Certification scheme with **independent verification**
- **Public reporting** of individual company results

GREEN MARINE IN 2007





THE PARTICIPANTS

-  Ship owners
-  Ports
-  Terminals
-  Shipyards
-  Seaway

+185
PARTICIPANTS
THROUGHOUT
US AND CANADA



PORT MEMBERS



PORT ASSOCIATIONS

- American Association of Port Authorities
- American Great Lakes Ports Association
- Association of Canadian Port Authorities
- **Association of Pacific Ports**
- FuturePorts
- North Atlantic Ports Association
- Washington Public Ports Association
- Worldwide Network of Port Cities (AIVP)

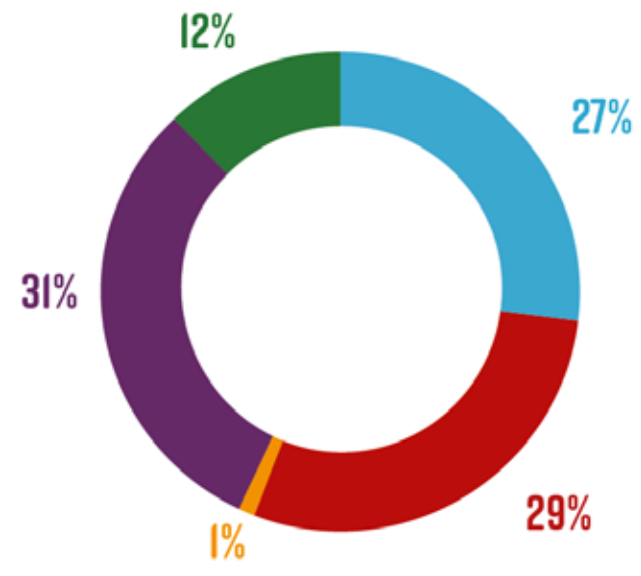
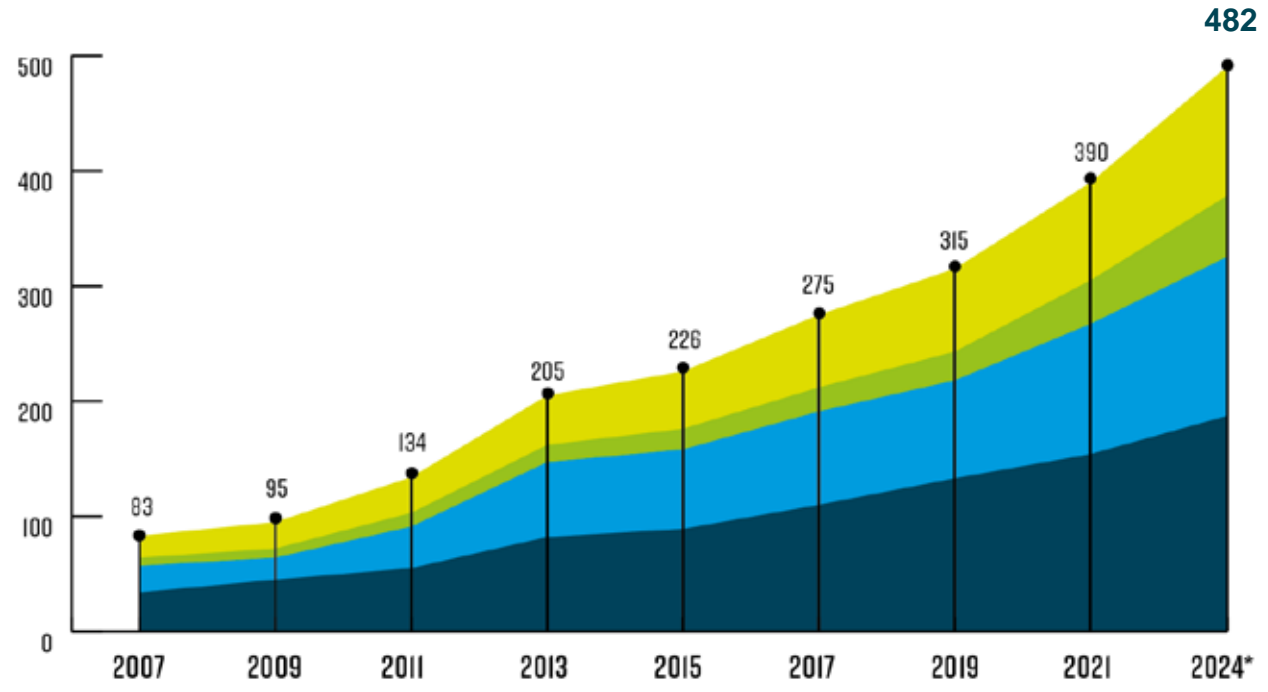
55 PORT PARTICIPANTS

Including **6 APP** members:

- Port Alberni
- Port of Hueneme
- Port of Nanaimo
- Port of Redwood City
- Port of San Diego
- Port of Stockton



MEMBERSHIP GROWTH AND DISTRIBUTION



187 Participants
Ship owners, ports, terminals, shipyards, and Seaway corporations

129 Partners
Suppliers of products, technologies, services

53 Associations
Industry Advocacy

113 Supporters
Environmental Groups and Government Agencies



GREEN MARINE EUROPE

- Launched in 2020 in collaboration with Surfrider Foundation Europe
- Based on the same rigorous framework as Green Marine in North America
- 28 ship owners (an overall fleet of 500+ vessels)
- Addition of the shipyards sector in 2023



GREEN MARINE INTERNATIONAL

- New **governance structure** to oversee Green Marine and Green Marine Europe environmental certification programs
- Alignment of **strategic vision** and priorities
- Enhanced brand recognition and **credibility** on the world stage
- All Green Marine and Green Marine Europe participants are now Green Marine International members



PERFORMANCE INDICATORS

The program's **broad scope** addresses environmental issues related to air, water and soil quality, as well as advancing social engagement through better community relations and biodiversity protection.



AQUATIC ECOSYSTEMS



AQUATIC INVASIVE SPECIES



COMMUNITY IMPACTS



COMMUNITY RELATIONS



DRY BULK HANDLING AND STORAGE



ENVIRONMENTAL LEADERSHIP



GREENHOUSE GAS EMISSIONS



OILY DISCHARGE



POLLUTANT AIR EMISSIONS SO_x • PM



POLLUTANT AIR EMISSIONS NO_x SO_x & PM



SHIP RECYCLING



SPILL PREVENTION & STORMWATER MANAGEMENT



UNDERWATER NOISE



WASTE MANAGEMENT

Legend: Ship owners Ports & Seaway Terminals Shipyards

MEASURING PERFORMANCE

Participants evaluate their progress yearly on the 1-to-5 scale of each applicable performance indicator.



ANNUAL CERTIFICATION PROCESS



ANNUAL SELF-EVALUATION



Online **Smart Guide** tool for participants and verifiers
Due March 15

EXTERNAL VERIFICATION



Verification every 2 years by an accredited external verifier
Due Early May

PUBLICATION OF THE RESULTS



Annual Performance Report released at **GreenTech**
In June

CONTINUAL IMPROVEMENT



To **become** certified: achieve at least one level 2 in the 1st year;
To **maintain** certification: continual improvement of one level each year until all applicable indicators \geq level 2

CERTIFICATION



A COLLABORATIVE APPROACH

Maritime industry

(Ship owners, ports, terminals, shipyards and Seaway corporations; Maritime associations)

Research community

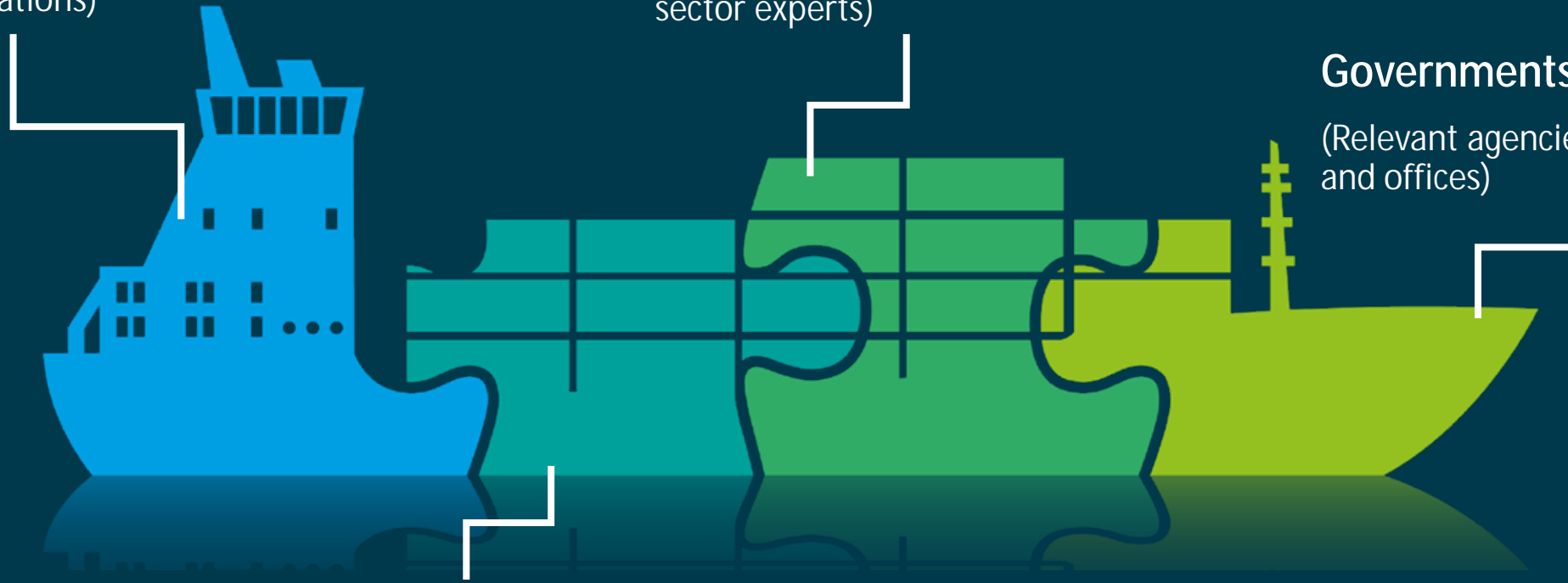
(Academic/scientific institutes and sector experts)

Governments

(Relevant agencies, departments and offices)

Environmental organizations

(e.g., Green Marine supporters)





100+ SUPPORTERS

Environmental groups, scientific institutions, and government agencies that support and encourage the sustainability initiative being voluntarily undertaken by the maritime industry.



Transport Canada

Transports Canada



ANNUAL PERFORMANCE REPORT



2023 Performance Report

| SHIP OWNERS | AIR EMISSIONS CO ₂ E | AIR EMISSIONS NO _x | AIR EMISSIONS SO _x AND PM | AQUATIC INVASIVE SPECIES | DIESEL EXCHANGER | SHIP RECYCLING | UNDERWATER NOISE | WASTE MANAGEMENT |
|--|---------------------------------|-------------------------------|--------------------------------------|--------------------------|------------------|----------------|------------------|------------------|
| Alaska Marine Highway System | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 3 |
| Algoma Central Corporation | 3 | 3 | 4 | 5 | 5 | 4 | 5 | 4 |
| American Steamship Company | 1 | 1 | 1 | 2 | 1 | 1 | n/a | 1 |
| Atlantic Towing Limited | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 4 |
| Bea Family Limited | 2 | 2 | 2 | n/a | 2 | 2 | 2 | 2 |
| British Columbia Ferry Services Inc | 2 | 3 | 3 | n/a | 2 | 1 | 4 | 2 |
| Canada Steamship Lines | 5 | 4 | 4 | 5 | 5 | 4 | 5 | 5 |
| Caribbean Limited | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 3 |
| Callendar Towing* | 2 | 2 | 2 | n/a | 2 | 1 | 2 | 1 |
| Coastal Shipping Ltd | 4 | 3 | 3 | 5 | 3 | 3 | 3 | 2 |
| Crossroads | 3 | 3 | 3 | n/a | 4 | 1 | 3 | 3 |
| CLC International | 3 | 3 | 4 | 5 | 4 | 5 | 4 | 5 |
| CDNA Group | 2 | 3 | 3 | 3 | 2 | 1 | 3 | 3 |
| Federal Fleet Services | 3 | 3 | 2 | 5 | 2 | 5 | 4 | 5 |
| Fednav Limited | 3 | 5 | 4 | 3 | 4 | 5 | 5 | 3 |
| FRT Clipper | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 |
| Grand River Navigation | 1 | 1 | 1 | 2 | 1 | 1 | n/a | 1 |
| Great Lakes Towing Company | 2 | 2 | 2 | n/a | 3 | 2 | n/a | 2 |
| Grubbe Designers + Transport Designers Inc | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Horizon Maritime Services Ltd | 5 | 3 | 3 | 4 | 5 | 3 | 4 | 3 |
| Inshore Steamship Company | 3 | 3 | 3 | 4 | 2 | 2 | n/a | 3 |
| Laurentian Pilgrimage Authority | 2 | 2 | 2 | n/a | 3 | 3 | 4 | 5 |
| Lakeview Towing Ltd | 2 | 3 | 4 | 4 | 2 | 2 | 2 | 2 |
| Marine Atlantic Inc | 4 | 3 | 3 | n/a | 3 | 3 | 3 | 4 |
| Marine Towing of Tampa | 3 | 3 | 3 | 3 | 4 | 1 | 3 | 4 |
| Metropolitan Marine Transportation Ltd | 3 | 3 | 4 | 5 | 3 | 2 | 3 | 3 |
| Molokai Marine Limited | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 3 |
| NEAS | 2 | 3 | 3 | 5 | 3 | 2 | 5 | 3 |
| North Arm Transportation Ltd | 3 | 3 | 3 | n/a | 3 | 1 | 3 | 4 |
| Northumberland Ferries Limited | 2 | 2 | 2 | n/a | 2 | 2 | 2 | 2 |
| Ocean Choice International | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Green Group - Harne Works and Drilling | 2 | 3 | 2 | n/a | 2 | 1 | 1 | 1 |
| Ocean Group - Ocean Towing and Marine Transportation | 2 | 4 | 4 | n/a | 3 | 1 | 2 | 3 |
| Oceana | 3 | 4 | 4 | 4 | 5 | 2 | 4 | 5 |
| Ontario Ministry of Transportation | 2 | 2 | 2 | n/a | 2 | 2 | n/a | 2 |
| Oyster Sound Transportation Company | 2 | 2 | 2 | n/a | 2 | 2 | n/a | 2 |
| Porter Terminals (Sugarcane) | 2 | 2 | 2 | 2 | 2 | 2 | n/a | 3 |
| Porter Sound Sheds | 2 | 2 | 3 | n/a | 2 | 1 | 3 | 2 |
| Reformax | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 |
| Seam Towing Canada Inc | 2 | 3 | 4 | n/a | 3 | 2 | 4 | 2 |
| Seaway Marine Transportation | 4 | 5 | 5 | n/a | 3 | 1 | 5 | 4 |
| Shelker Transportation Company | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 |
| Shepherd's Maritime Island Ferry | 2 | 3 | 2 | n/a | 2 | 1 | n/a | 2 |
| Société des transporteurs du Québec | 2 | 3 | 3 | n/a | 2 | 2 | 2 | 2 |
| NOTE | 2 | 3 | 3 | 2 | 2 | 1 | 3 | 3 |
| Viking Expeditions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Washington State Ferries | 3 | 3 | 4 | n/a | 2 | 2 | 5 | 3 |

n/a - not applicable *New participant whose results have not yet been verified

Green Marine's Annual Performance Report presents the latest results achieved by participants, along with an in-depth analysis of year-over-year improvements in their environmental sustainability.

To read the 2023 Annual Performance Report and view past reports:

green-marine.org/certification/results



GHG & AIR POLLUTANTS PERFORMANCE INDICATOR FOR PORTS



Reduce engine idling and truck congestion
Promote sustainable commuting practices for employees

Annual **report** on total GHG AND either port-wide equipment inventory or emission reduction program with tenants/users

5-year port-wide **inventory** of GHG & Air Pollutants
Adopt an emissions reduction **plan** and targets on own, direct emissions

>= 2.4% annual average over 3+ years for direct GHG emissions
>= 1% annual average over 3+ years for port-wide GHG emissions
Adopt a port-wide emissions reduction **plan**



COMMUNITY RELATIONS PERFORMANCE INDICATOR FOR PORTS



2

Provide **contact information** for concerns, implement a **response procedure**, maintain a network of local stakeholders, **monitor media**, communicate through multiple channels, and ensure **senior management's commitment** to good community relations.

3

Map the port's stakeholders and their concerns, develop a **communication strategy**, publicly disclose an annual **social responsibility report**, implement community **outreach strategies**, and participate in social or environmental community activities annually.

4

Actively engage with local communities through various means, such as a port community committee and external community meetings. **Encourage community feedback and participation** and incorporate community relations in strategic planning.

5

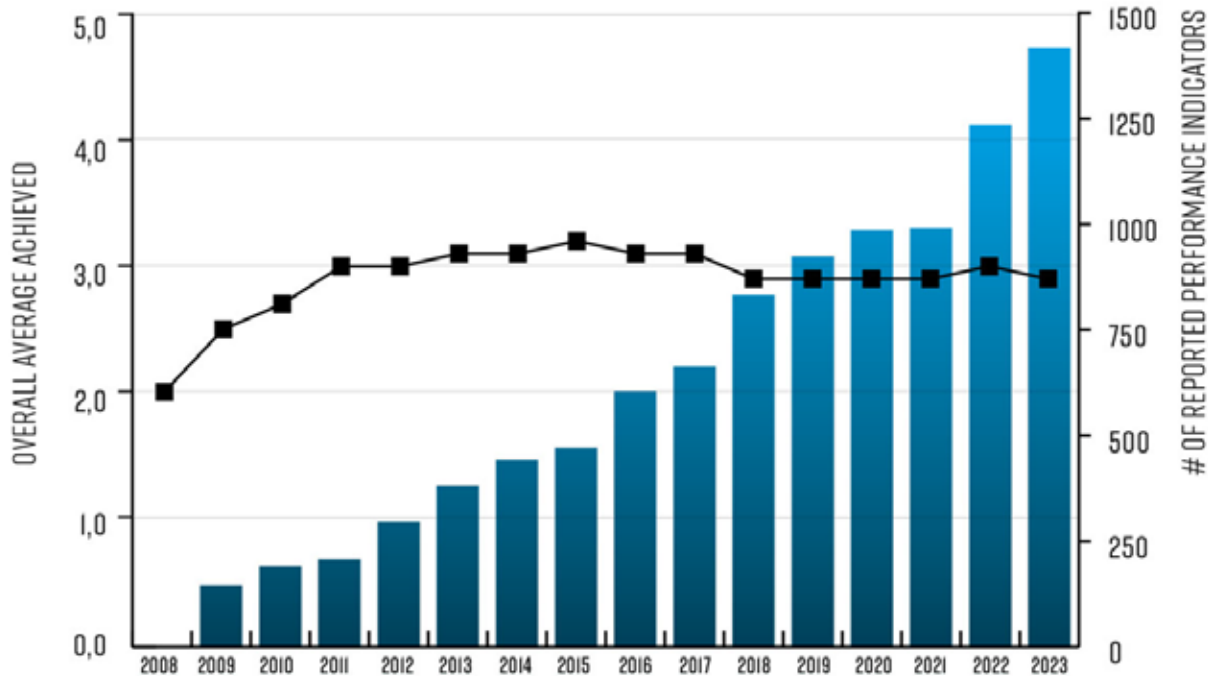
Evaluate the **community's perception** and develop and implement measures addressing the concerns raised. Carry out a **co-creation project** or develop an initiative in collaboration with local stakeholders.



2023 RESULTS - OVERVIEW



PARTICIPATION / PERFORMANCE



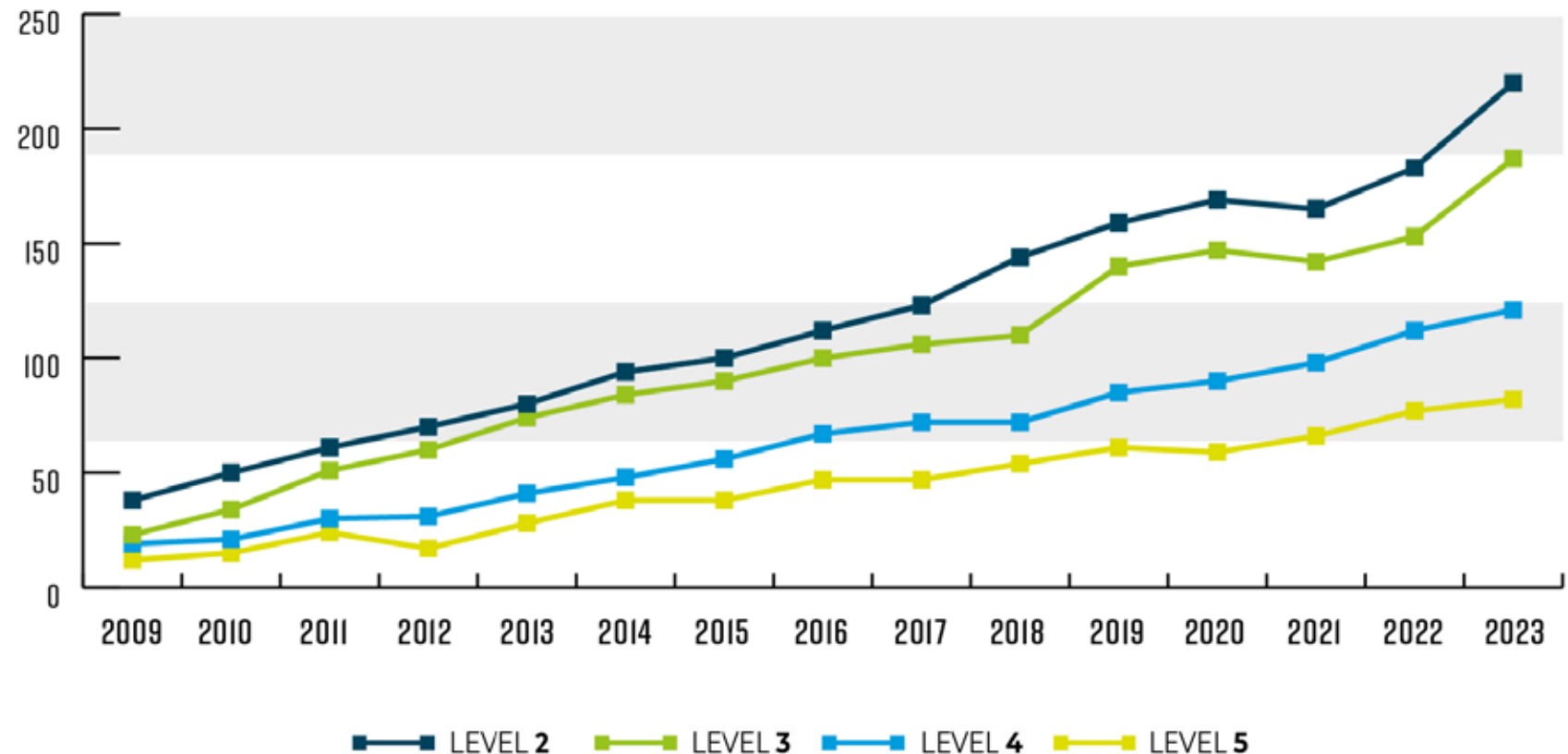
- 220 reports submitted
- Biggest ever incoming class
- >20% more reports than in 2022
- Overall average = 2.9
- This steady average reflects the program's well-balanced, while ever-evolving criteria



2023 RESULTS – CONTINUAL IMPROVEMENT



Clear **upward trends** show that an increasingly significant portion of the maritime industry improves its environmental performance year over year beyond compliance with an increasing number of participants reaching Levels from 2 to 5



VALUE PROPOSITION



ROADMAP AND ACTION PLAN

Annual benchmarking based on a common standard and concrete actions;
External verification bolsters the program's **rigour and credibility**



RECOGNITION AND VISIBILITY

Maintaining **social acceptability** and enhancing reputational capital;
A suite of **communication tools** to amplify engagement with stakeholders.



UNIQUE NETWORK

The program is developed based on a collaborative approach, in **partnership with an extensive network** of environmental groups, government agencies and academic experts.



ADDED VALUE

A **cost-effective way** to initiate a sustainable development process validated by a third party;
Can allow access to **financial incentives**.



COMMUNICATING SUSTAINABILITY

Green Marine
2,951 followers
2w · 100%

[#WindyGreenFact]
The Port of San Diego's all-electric mobile harbour cranes will be the first of their kind in North America when they begin operating at the Port's Tenth Avenue Marine Terminal next summer. The port has accepted a San Diego County Air Pollution Control District grant to partially fund the electrical upgrades to power the new cranes. The new equipment will improve the environment and public health by eliminating the diesel particulates from the old cranes currently in use. This new system is a big step toward achieving the port's Maritime Clean Air Strategy goal of having 100% zero-emission cargo handling equipment by 2030. #IndustrySuccessStories
↳ <https://www.portofsan-diego.com/>



Green Marine
1,421 followers
2w · 100%

Last week, Green Marine program manager Brittany Blokier was shadowing Arrow Marine Services' external verification conducted by verifier Black Horizons. Thanks to the Arrow Transportation Systems Inc. team for your welcoming!

🔔 Every two years, participants must submit the results to an external verifier Accredited by Green Marine. The verification process is done in person on the company's premises.



WEBSITE AND NEWSLETTER



31 AUGUST 2023
THE NEW FAIRVIEW-RIDLEY CONNECTOR CORRIDOR OPENS IN PRINCE RUPERT

The Prince Rupert Port Authority (PRPA) has completed its Fairview-Ridley Connector Corridor project. The road is now fully operational for container trucks to travel to and...

INDUSTRY SUCCESS STORIES

LEARN MORE →



3 APRIL 2024
Port of Albany undertakes a zero-emission fleet assessment

The Albany Port District Commission (APDC) is evaluating a transition to zero-emission fleet equipment as part of the EPA Ports Initiative. The port's CEO, Richard Hendrick...



26 FEBRUARY 2024
Port of Longview joins the Green Marine program

The Port of Longview is the first operating port on the U.S.-maintained Columbia River shipping channel. Established in 1921, the port operates and maintains eight marine...



6 MARCH 2024
Port NOLA's container-on-barge service significantly reduces CO2 emissions

The initiative has already slashed more than 1,300 metric tons of carbon dioxide emissions.

Green Marine offers visibility & recognition to the participants' environmental engagement through its website, newsletter, and social media.



DIGITAL MAGAZINE



U.N. SUSTAINABLE DEVELOPMENT GOALS



- The Green Marine program addresses 24 targets of 11 of the 17 SDGs
- Green Marine’s newest performance indicator, **Aquatic Ecosystems**, has the **greatest correlation** with SDGs
- The SDGs with the most direct links are #6 (Clean water and sanitation), #12 (Responsible consumption and production) and #14 (Life below water).

PERFORMANCE INDICATORS

| | GOAL 3 | GOAL 6 | GOAL 7 | GOAL 8 | GOAL 9 | GOAL 11 | GOAL 12 | GOAL 13 | GOAL 14 | GOAL 15 | GOAL 17 |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| AIR EMISSIONS - GREENHOUSE GASES | Direct link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| AIR EMISSIONS - NOx | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| AIR EMISSIONS - SOx & PM | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| AQUATIC ECOSYSTEMS | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| AQUATIC INVASIVE SPECIES | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| COMMUNITY IMPACTS | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| COMMUNITY RELATIONS | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| DRY BULK HANDLING AND STORAGE | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| ENVIRONMENTAL LEADERSHIP | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| OILY DISCHARGE | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| SHIP RECYCLING | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| SPILL PREVENTION AND STORMWATER MANAGEMENT | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| UNDERWATER NOISE | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |
| WASTE MANAGEMENT | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link | Indirect link |

Direct link
 Indirect link



INTERNATIONAL PILOT PROJECTS

- For Green Marine, the objective is to assess the readiness and applicability of our environmental program and certification process outside of North America and Europe.
- For the participating ports and companies, it is an opportunity to better understand the program requirements before committing to join.

- Port of Brisbane (Australia)
- Port Authority of New South Wales (Australia)
- Spirit of Tasmania (Australia)
- NRMA (Australia)
- SSA Mexico (Mexico)
- Grand Bahama Shipyard Ltd. (Bahamas)



GREENTECH 2025

Green Marine's 18th annual conference and certification reception



Emerging
Issues of
Interest



Innovative
Solutions



Renowned
speakers



Networking &
Discussions



See you in New Orleans, LA
June 9 to 11, 2025!



green-marine.org/greentech/



STAY IN TOUCH



info@green-marine.org



[@green-marine-alliance-verte](https://www.linkedin.com/company/green-marine-alliance-verte)



Green Marine's Newsletter

Subscribe [HERE!](#)

See [previous issues](#)

Green Marine Magazine

Now 100% digital

[Read the magazine](#)



Green Marine Website

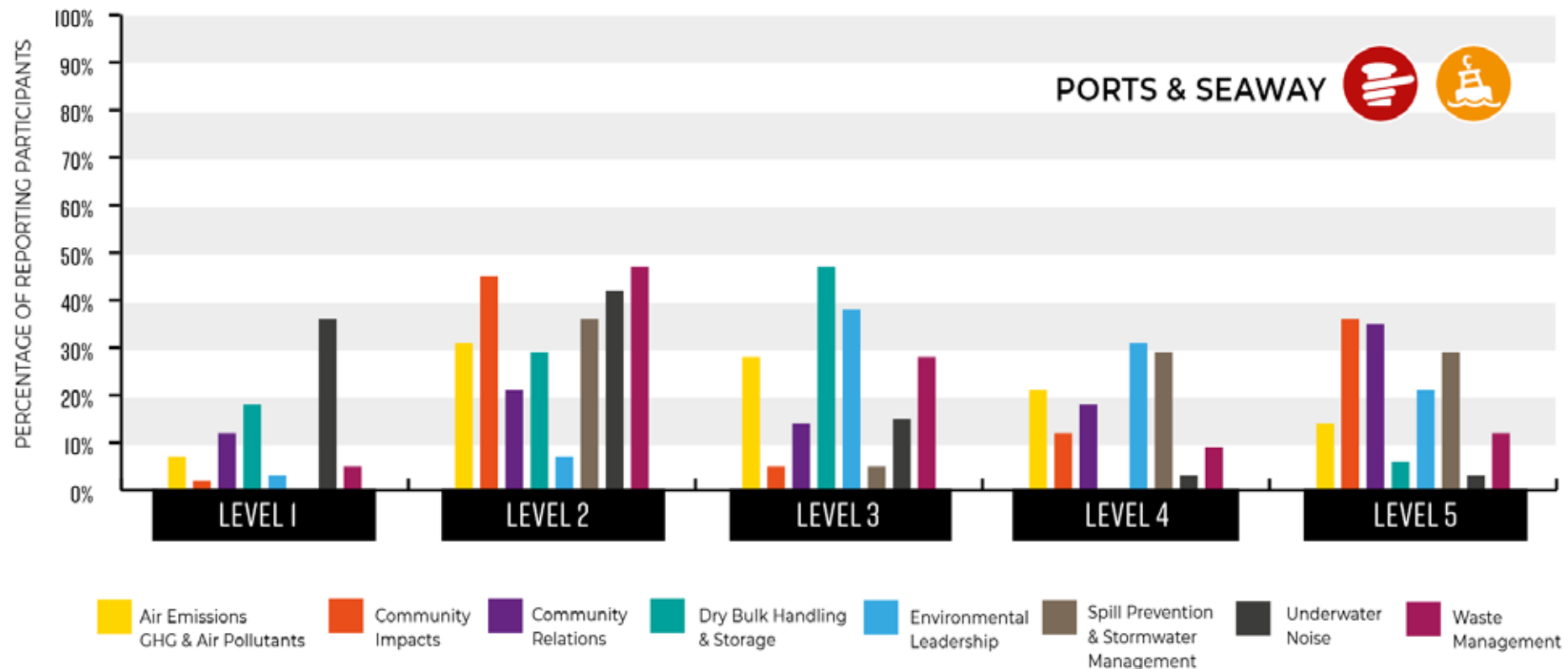
Renewed in 2022

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



EXTRAS

2023 RESULTS – PORTS OVERVIEW



#BRAGABOUTIT

Green Marine participants are proud of their achievements and proudly showcase the certified logo!



SOCIAL MEDIA

PAPA
@PAPAmaritime

To obtain @GreenMarine_AVerte certification, PAPA must satisfy the requirements of the rigorous and transparent certification process: self-assessment, external verification, publication of the results, and continual improvement.
green.marine.org/certification/



LOGISTEC
@Logistics2100

#LOGISTEC is leading the drive to reduce its marine environmental footprint for a #sustainable future - with the highest number of Green Marine certified port terminals in North America. @GreenMarine_AVerte
#Sustainability #SupplyChain #KeyPartners



Port of Everett
15 September, 2018

In June 2021, the Port of Everett earned its annual green marine recertification. Green Marine is an environmental certification program for the North American marine industry that is voluntary, transparent and inclusive. The program addresses key environmental issues through 12 performance indicators, and includes shipowners, ports, terminals, seaway corporations, and shippers. A member of Green Marine since 2017, the Port has expressed and continues to uphold its commitment... *Afficher la suite*



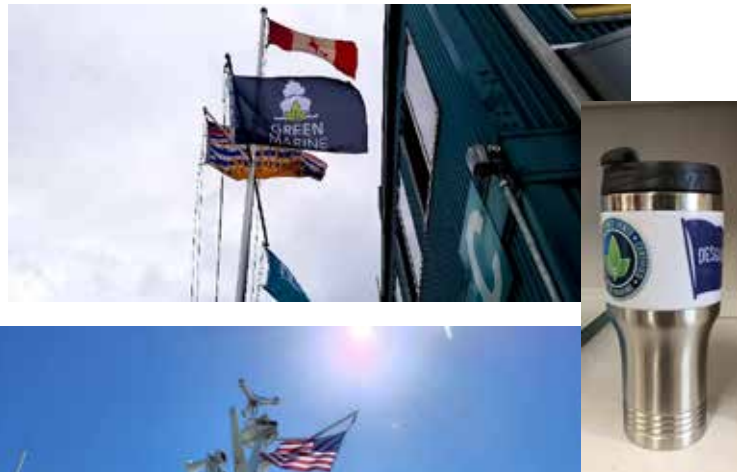
Prince Rupert Port Authority
@prpaaort

@GreenMarine_AVerte has #certified the Prince Rupert Port Authority once again, reinforcing our commitment to #environmental #stewardship and #sustainable shipping.

Read about our latest performance report and the action we're taking to reduce our footprint:
rupertport.com/prpa-scores-to...



PROMO ITEMS



AD PLACEMENT



WEBSITE

