

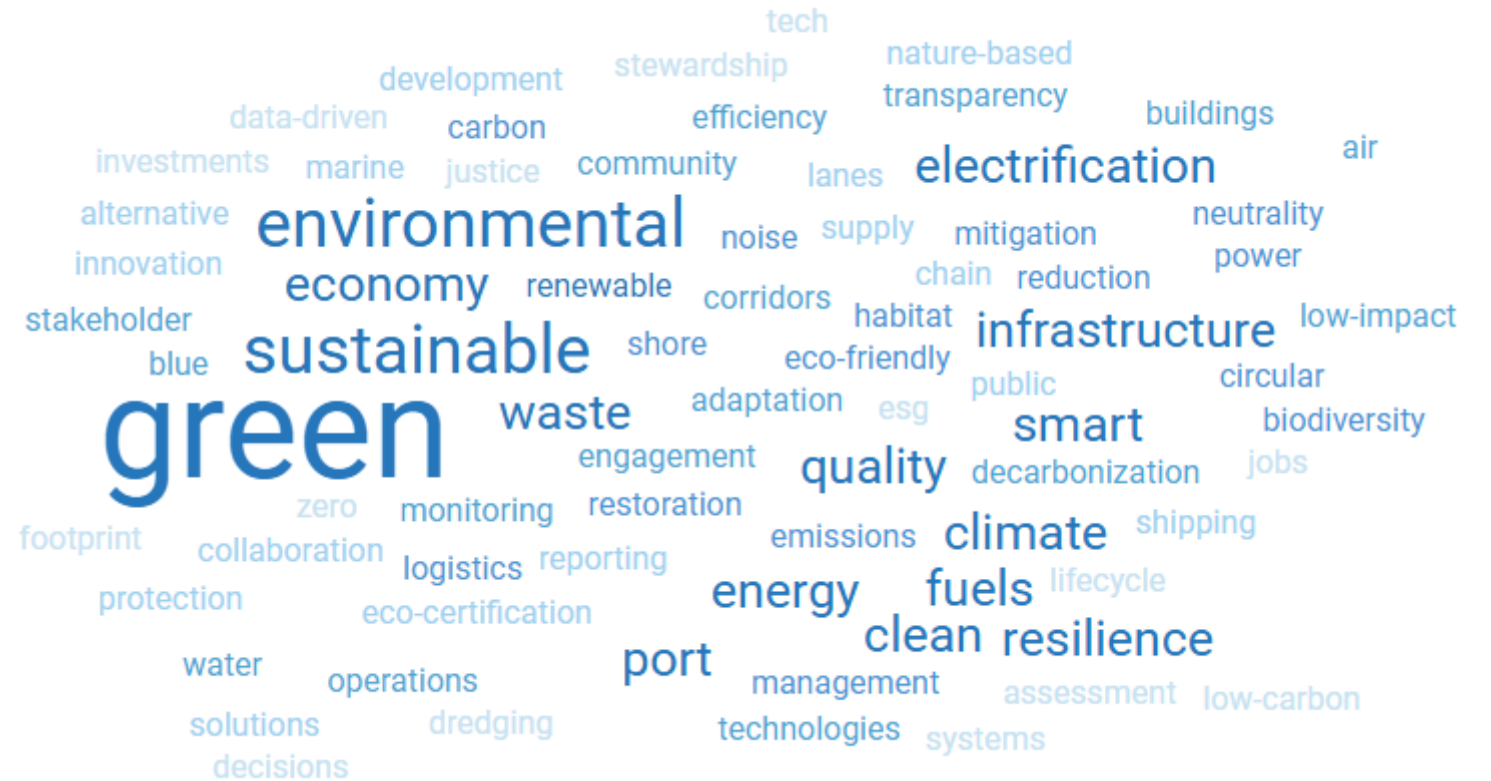


ADVANCING ENVIRONMENTAL EXCELLENCE

A voluntary environmental certification program for
the maritime industry

Green and Resilient Ports Webinar

Allison Ryan, Program Manager, 02-Oct-2025



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 corporation



- Action plan addressing **key environmental issues** with 15 performance indicators (benchmarking)
- Opportunity for **NGO and governmental participation**
- Certification scheme with **independent verification**
- **Public reporting** of individual company results



**WHAT IS
GREEN
MARINE?**

KEY PILLARS FOR A GREEN PORT

**Measurable
Environmental
Performance**

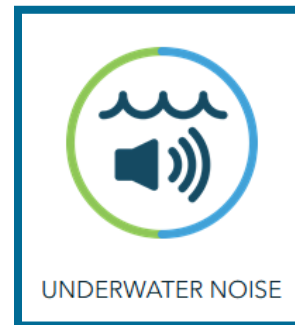
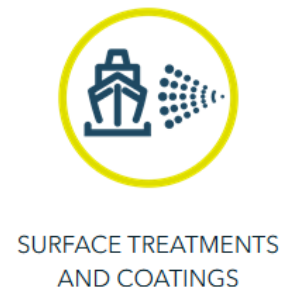
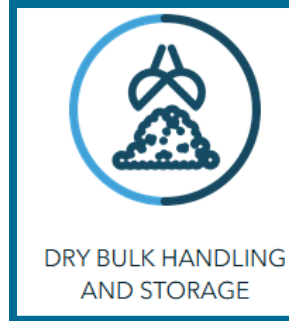
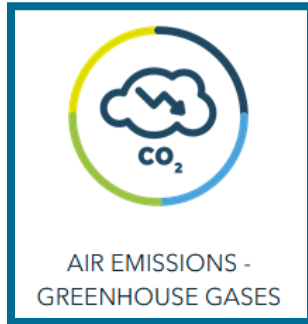
**Transparent and
Verified Progress**

**Community and
Ecosystem
Engagement**

Leadership

PERFORMANCE INDICATORS

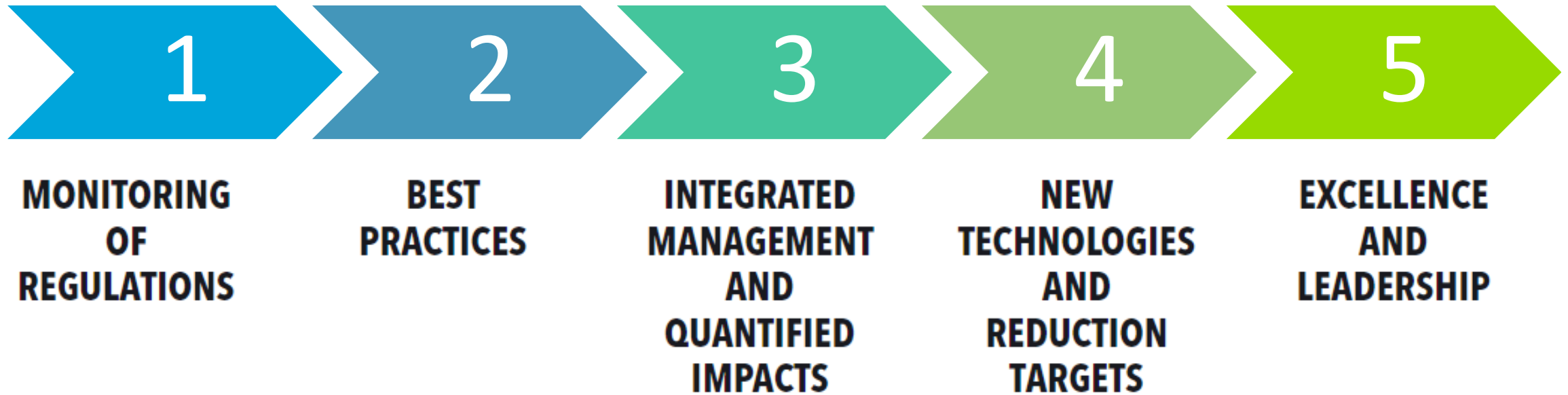
The program's **broad scope** addresses environmental issues related to air, water, and soil quality, biodiversity protection, as well as advancing social engagement through better community relations.



○ Ship owners ○ Ports & Seaway
○ Terminals ○ Shipyards

MEASURING PERFORMANCE

What do the performance indicator requirements look like?



COMMUNITY RELATIONS PERFORMANCE INDICATOR FOR PORTS



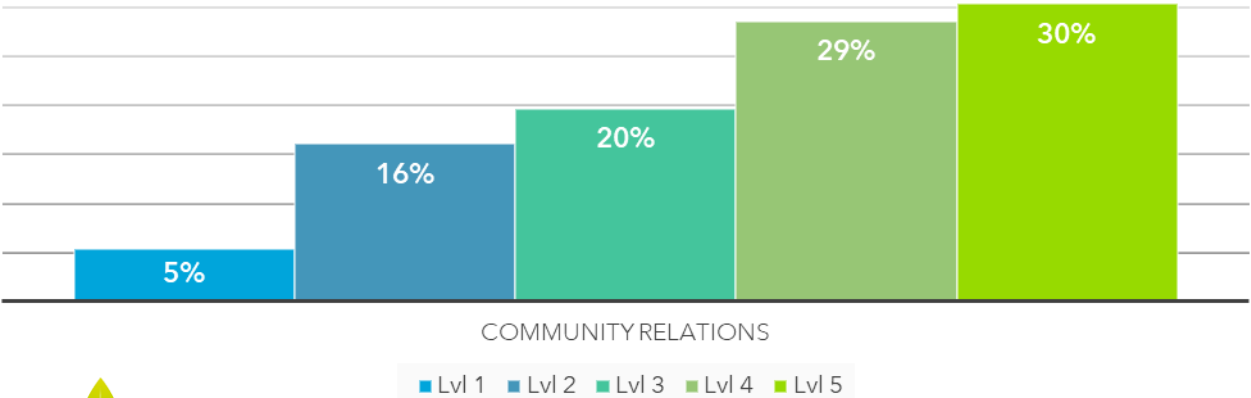
Provide **contact information** for concerns, implement a response procedure, maintain a network of local stakeholders, **monitor media**, communicate through multiple channels, and ensure **senior management's commitment** to good community relations.

Knowledge of 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.

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.

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.

One-third of the ports have achieved the highest Level 5 for Community Relations after only three years of reporting on this indicator.



Co-Creation Pilot Project

**Co-Creation vs
Traditional Consultation**

**Training and
Partnerships**

**Reimagining Waterfront
Access**

RESULTS OF 2024



« **PARTNERSHIPS ARE OUR PORT'S STRENGTH - PART OF OUR DNA.** »

— MANON D'AUTEUIL



UNDERWATER NOISE PERFORMANCE INDICATOR FOR PORTS

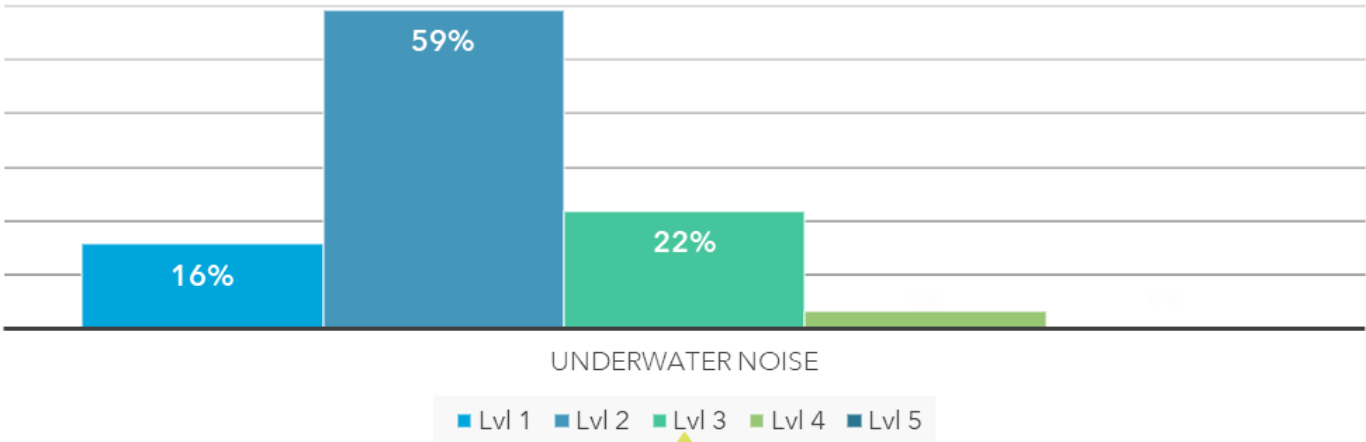


Awareness for port users on underwater noise, impacts on **marine species** and approaches to UN management, knowledge-building via marine mammal **sightings data** and review of sensitive habitats and species in the port's **zone of influence**, and hiring of a **MMO/PSO** during in-water/on-land construction.

Develop an **Underwater Noise Mitigation and Management Plan**, with mitigation options, best practices, and operating procedures, establish an ambient UN **monitoring** program, offer a **recognition** program for quiet vessels, and participate

Develop UN **reduction targets**, administer a quiet vessel **incentive** program, establish in-site **acoustic monitoring**, support or collaborate on scientific **research**, and lead a regional **stakeholder** group.

Implement the majority of the criteria within Level 4, **achieve** defined reduction **targets** and demonstrate **continual improvement** in implementing the UNMMP through **noise reduction** solutions and **technologies**.



ECHO Program

Enhancing
Cetacean
Habitat
Observation



Southern Resident Killer Whales (SRKW)
Source: WWF

Swiftsure Bank voluntary ship slowdown

Date: June 1 – October 31

Ships transiting through the inbound and outbound shipping lanes at Swiftsure Bank are asked to voluntarily slow down to the target speeds listed below, when safe and operationally feasible to do so.

NEW IN 2025: The slowdown area (in blue) has been extended by approximately five nautical miles west of the end of the traffic separation scheme (in pink). Please refer to the map above.

The Swiftsure Bank slowdown area overlaps with the maritime territory of Pacheedaht First Nation, the Maa-nulth Domestic Fishing Area as defined by the Maa-nulth First Nations Treaty, and the treaty-protected Usual and Accustomed Fishing Area of the Makah Tribe.

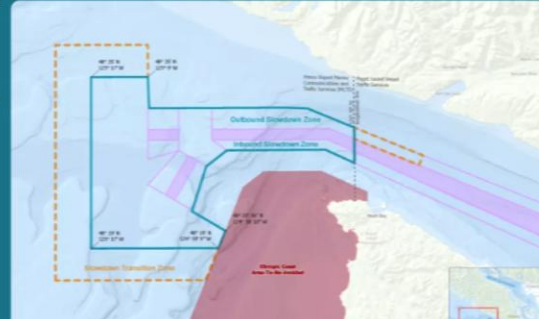
Slowdown speeds:

When safe and operationally feasible, ships are encouraged to transit through the slowdown area at or below the following speeds through the water:

- 14.5 knots speed through the water for container ships
- 11 knots speed through the water for other vessels

**If and when safe, these types of ships:*

Transiting through the Swiftsure Bank voluntary slowdown area, including time in



Strait of Juan de Fuca voluntary route alteration for tugs

Date: June 1 – October 31

Route alteration details:

When navigationally safe to do so, position tug to enter either:

- the inbound route alteration zone, which is 1,500 m wide and occurs in the area between 123° 52.3532' W 48° 18.6222' N and 124° 31.5563' W 48° 28.8886' N
- the outbound shipping lane

Tugboats are encouraged to participate whether or not they are towing a barge.

The inbound route alteration zone is positioned 1,000 metres north of the traffic separation scheme (TSS) to provide a safety buffer. Maintain sufficient closest point of approach with any other vessel traffic. Participation does not relieve operators of their obligations under collision regulations, or to take precautions given the circumstances of the case. Any directions from Vessel Traffic Service supersede those of the route alteration.

Learn more about the ECHO Program.

Sign up for the ECHO Program's bi-weekly newsletter.

Questions? Email echo@portvancouver.com.



RESULTS OF 2024



2024 Participation = 85%



AQUATIC ECOSYSTEMS PERFORMANCE INDICATOR FOR PORTS



2

Conduct a **literature review** on aquatic ecosystems, delineate the **zone of influence** and map ecosystems, establish **contact** with collaborators and the relevant government authority, provide in-water cleaning **guidelines** and/or raise **awareness** on AIS via biofouling, minimize impacts of **maintenance** and capital **dredging**, facilitate **educational** activities or raise awareness of aquatic ecosystem **protection** and **pollution** prevention in port waters.

3

Identify potential pollutant **sources** in the zone of influence, carry out a **characterization** to **benchmark** aquatic ecosystem status, support govt authorities with **response plans** for AIS, organize or actively participate in a **clean-up** activity, support scientific research by **facilitating access** to the port for sampling purposes, implement mechanisms to limit incidental **discharges** from ships.

4

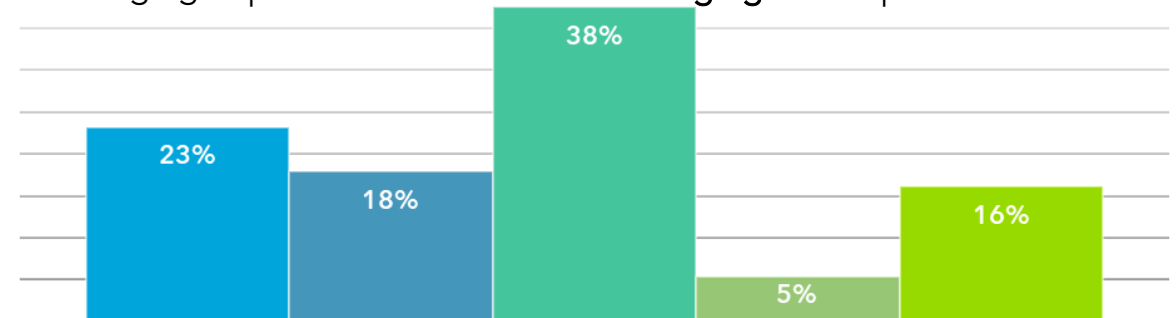
Implement an aquatic ecosystem **monitoring** program in the zone of influence, develop an aquatic ecosystem **management** plan, implement, actively participate in, or financially support a natural aquatic **habitat restoration/development** project, beneficially reuse dredged sediment (where possible), actively participate in **pilot projects** or **research** on dredging impacts/reduction.

5

Expand level 4 monitoring program to **long-term**, **protect** or contribute to aquatic ecosystem protection from commercial or industrial **development**, **invest** in R&D or pre-commercial projects on AE protection around industrial-port zones, **reduce** maintenance dredging needs, complete a sediment clean-up project, use **environmental dredging** techniques.



The overall average by ports for the first reporting year on Aquatic Ecosystems was 2.7 – the highest initial average for a new performance indicator, with 59% achieving Level 3 or higher.



AQUATIC ECOSYSTEMS

■ Lvl 1 ■ Lvl 2 ■ Lvl 3 ■ Lvl 4 ■ Lvl 5



Enviro-Actions Project

"Marine transportation is the greenest mode for handling goods and commodities, and we, industries and communities, are all dependent on it. It's up to everyone to protect the ecosystems that support these activities, and the marine industry sector is very proactive in this regard. The Port of Sept-Îles demonstrates its leadership through its major investment in the Enviro-Actions project."

— **Mélissa Sanikopoulos**, Director, Environment & Sustainability, Port of Sept-Îles

OBJECTIVES

- Understand the current state of the bay
- Measure and predict environmental impacts on the bay's ecosystem
- Monitor the evolution of various analyzed components over the short-, medium-, and long-term, by establishing an environmental monitoring procedure
- Equip stakeholders for decision-making and environmental management, for the purpose of sustainable development
- Meet expectations and concerns from stakeholders

Near Real-Time Water Quality Monitoring



GHG & AIR POLLUTANTS PERFORMANCE INDICATOR FOR PORTS



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

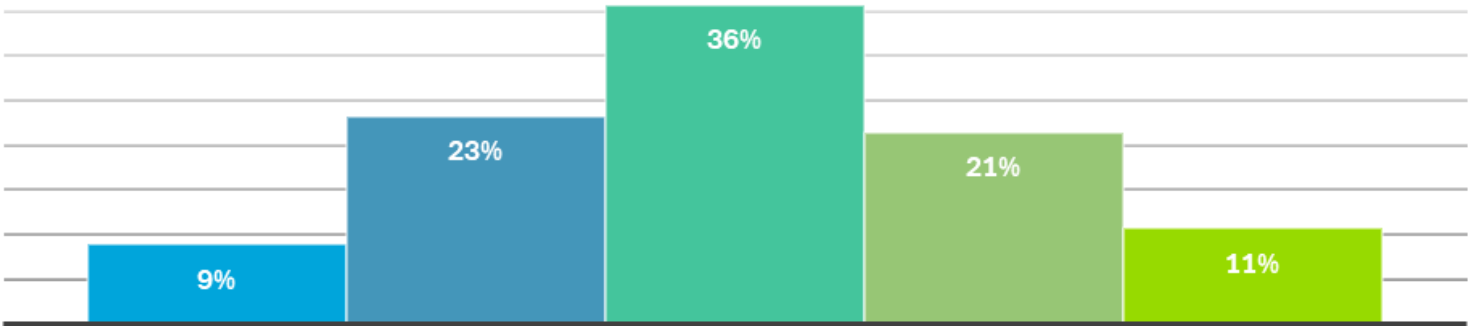
Annual **report** on total GHG AND either port-wide equipment inventory or emission reduction program with tenants/users

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**



of Green Marine-certified ports conducted **port-wide** inventories



AIR EMISSIONS - GREENHOUSE GASES & AIR POLLUTANTS

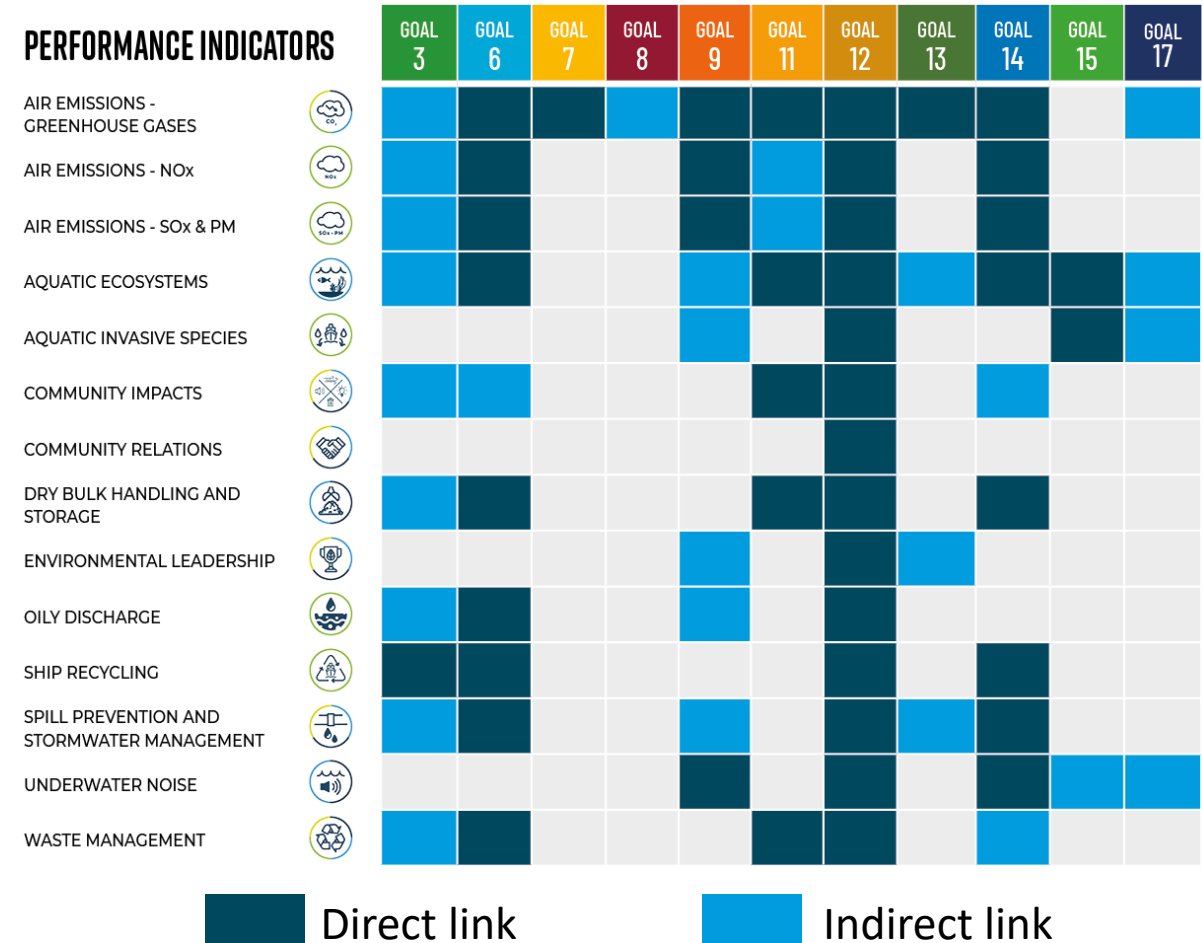


■ Lvl 1 ■ Lvl 2 ■ Lvl 3 ■ Lvl 4 ■ Lvl 5

U.N. SUSTAINABLE DEVELOPMENT GOALS

— The Green Marine program addresses 25 targets of 11 of the 17 SDGs

— Green Marine's newest performance indicator, **Aquatic Ecosystems**, has the **greatest correlation** with SDGs



👉 Read more in the [Green Marine Magazine](#)



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**
Conference 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



+185
PARTICIPANTS

Participants

-  Ship owners | *Armateurs*
-  Ports | *Ports*
-  Terminals | *Terminaux*
-  Shipyards | *Chantiers maritimes*
-  Seaway | *Voie maritime*



GREEN MARINE EUROPE

- 35+ participants (ship owners & shipyards)
- ship owners represent a fleet of over 500 vessels



GREENTECH 2026

Green Marine's 19th annual conference and certification reception



Emerging
Issues of
Interest



Innovative
Solutions



Renowned
speakers



Networking
&
Discussions



See you in Québec City, QC
June 9 to 11, 2026!



green-marine.org/greentech/



STAY IN TOUCH

Allison Ryan
Program Manager, East Coast

allison.ryan@green-marine.org



info@green-marine.org



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



Green Marine's Newsletter

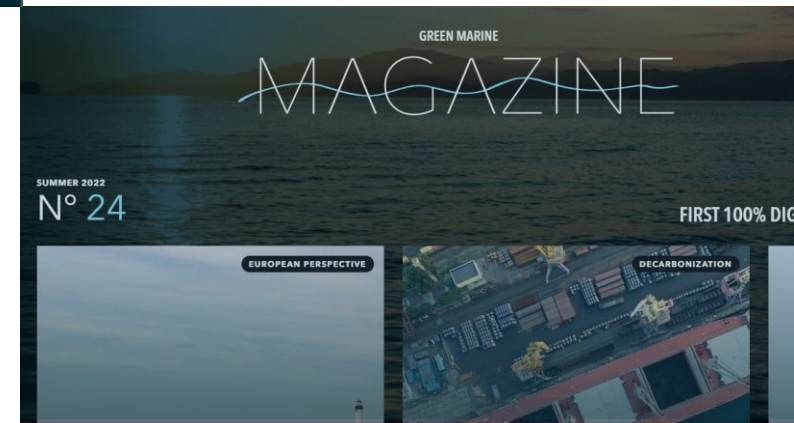
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