



# GREEN MARINE

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PERFORMANCE  
REPORT

# 2019

# CHAIRMAN'S ADDRESS



How I wish I could have been with many of you in Montreal this June to distribute these results in person. It's unfortunate that GreenTech 2020 had to be cancelled but I'm glad that we didn't put anyone at COVID-19 risk.

For many of us, 2019 now feels so long ago with everything we've had to do in recent months for our work and households in response to this novel coronavirus. The shipping industry has responded impressively. Managements

promptly arranged for landside staff to work from home while introducing additional precautions to keep everyone aboard vessels and at ports healthy as they maintained vital supply chains. In the process, our industry has also shown a lot of empathy in helping out front-line workers and others in need of assistance through the sharing of critical resources, space and ingenuity, as well as generosity in raising emergency funds.

It's important to remember that the performance results conveyed within these pages reflect all of the sustainability efforts by Green Marine's participants throughout 2019. It takes a considerable amount of time after a year's conclusion to gather, calculate and document all of the actions taken by an enterprise and/or one of its divisions in achieving a specific level for each of the program's applicable performance indicators. Everything must also be ready for an independent verifier to regularly check – a process that had to be on hold for many participants for the time-being to respect social distancing requirements, but one that will resume in earnest as soon as possible.

I am delighted to see that Green Marine's membership continues to climb steadily with more Canadian and U.S. companies and organizations recognizing the program's value. There's no doubt that Green Marine continues to gain recognition throughout North America and throughout

the world. This is evidenced in good part by the global Interferry trade organization becoming Green Marine's 30th association member late last year, and Green Marine being shortlisted for the 2019 Safety4Sea Awards.

And Green Marine Europe launched just weeks ago! Spearheaded by the Surfrider Foundation Europe, the program is already garnering interest from ship owners eager to embrace our continual improvement framework. Starting with a conversation a year ago, negotiations led this past spring to a licensing agreement that ensures the brand's integrity. How wonderful to see a success story that began in the St. Lawrence and Great Lakes region taking hold in another part of the world!

What a pleasure it has been to serve on the Green Marine board of directors for the past six years and as its chair since June 2019. I'm continually impressed at the good will and extensive time our members voluntarily dedicate to report on their environmental actions, share information on technical committees, and provide first-hand experience through the advisory committees, our annual conferences, and for the first time as of this June in a videoconferencing series.

I will forever be grateful to Green Marine for changing the way our industry does business. My company now readily holds discussions with competitors about environmental requirements, such as the new sulphur content rules, so that our sector as a whole saves time, money, frustration as it becomes an even more efficient and sustainable mode of transportation.

Finally, my sincere thanks to Ray Johnston, David Bolduc and their team for making my job on the board a true pleasure by always steering this ship into the best winds of collaborative change. I am truly amazed at what this small and strategically located team manages to achieve even during a pandemic. Already adept at teleconferencing, the Green Marine team has readily shifted to other forms of effective communication that has continued to assist the existing membership and recruit new troops.

Congratulations to all the participants on their admirable efforts! I hope to see everyone again soon!

**Ronald W. Tursi**

# WELCOME ABOARD!

Green Marine is an environmental certification program voluntarily initiated by the maritime industry in 2007 to challenge its enterprises to do significantly better than what is required by regulations. The step-by-step approach for each of the environmental priorities has facilitated the participation of marine transportation enterprises of various types, sizes and resources to improve over time while being held to the same rigorous standards.

As a result, Green Marine is delighted to have recently welcomed as new participants the major Port of Galveston in Texas, along with the ports of Goderich in Ontario, Summerside on Prince Edward Island, and Stephenville in Newfoundland and Labrador – all of which are so vital to their smaller communities.

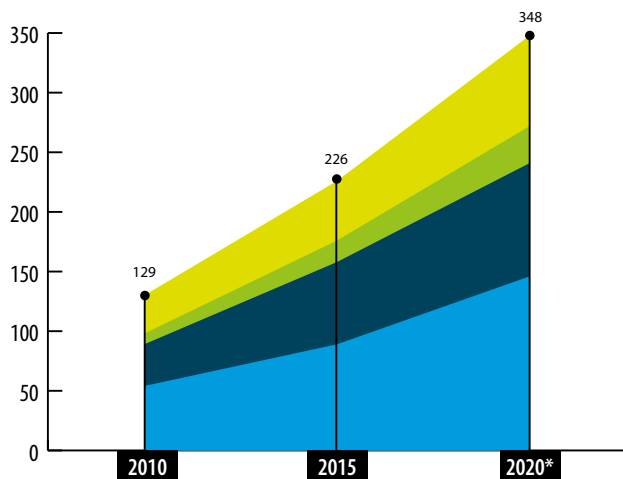
It has also been great to welcome ship owners from diverse sectors, such as cruise operators, Arctic supply ships, and support vessels to name a few over

the last 12 months. Their recent membership further proves that the program's framework is structured in a way that encompasses various maritime activities while applying the same rigorous sustainability criteria to all.

While shipyards have been a part of the plan since 2011, the organization's greater focus on responsible ship building, repair, dismantling and recycling in the past couple of years has inspired Blount Boats, Motive Power Marine, and Point Hope Maritime to all join Green Marine's ranks.

Green Marine is also delighted to welcome two new association members. As the trade association for ferry operations worldwide, Interferry will no doubt be a wonderful Green Marine ambassador by pointing out the program's advantages in conveying sustainability to its ridership. Green Marine is also excited to literally welcome the winds of change with the association membership of the International Windship Association whose efforts in harnessing this clean energy would astound sailors of yesteryear.

MEMBERSHIP: A DECADE OF STEADY GROWTH



\*As of June 1, 2020

## PARTICIPANTS

Green Marine's **146 participants** are ship owners, port authorities, terminal operators, shipyard managers and the Seaway corporations.

## PARTNERS

The **95 partners** are businesses that assist participants in improving their environmental performance through maritime-related expertise, innovative technologies, equipment and services.

## ASSOCIATIONS

The **31 association members** serve as ambassadors by encouraging their members to join and promoting Green Marine's efforts and successes.

## SUPPORTERS

Green Marine's **76 supporters** encourage and bolster the sustainable development initiatives undertaken by the industry. They help review and shape the program.

# BRANCHING OUT!

Green Marine is excited to begin its European adventure! Green Marine Europe launched April 28, 2020, to a favourable response by individual ship owners, industry associations, and the media.

The Green Marine secretariat in North America is working in partnership with Surfrider Foundation Europe, an NGO leading this initiative to adapt the program's framework to the environmental specifications of European ship owners, while maintaining the same rigour, transparency and measurable accountability as the North American model. The program will pursue the same environmental priorities as the North American framework.

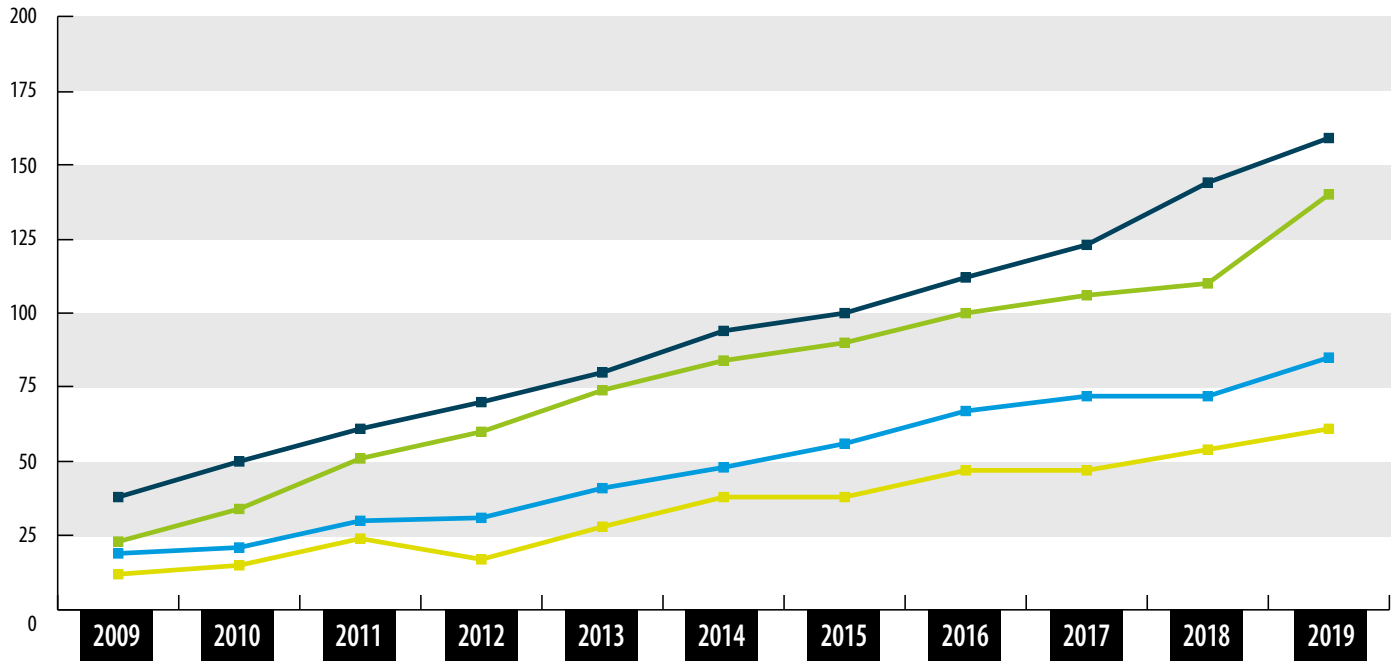
Under a four-year licensing agreement, Green Marine will lend guidance and various support to build Green Marine Europe, after which it is expected that Green Marine Europe will become an independent organization. The long-term goal is to continue to license the brand to ensure its high integrity as both the North American and European organizations work in tandem on behalf of their memberships to advance environmental excellence. More information is available at [green-marine.org/green-marine-europe](https://green-marine.org/green-marine-europe)





# STEADILY BEYOND COMPLIANCE...

It takes a while to become familiar with all of the program's criteria for each performance indicator. Fortunately, Green Marine's participants are in for the long haul and their overall levels of achievement increase over time as indicated by this graph in which anything beyond Level 1 surpasses regulatory compliance. To stay true to the core tenet of continual improvement, Green Marine also requires any new participant to achieve at least one Level 2 as part of its first year of results reporting.



NUMBER OF PARTICIPANTS REACHING AT LEAST ONE:

■ LEVEL 2    
 ■ LEVEL 3    
 ■ LEVEL 4    
 ■ LEVEL 5

**JANUARY**

New indicator: garbage management for ship owners.

**APRIL**

Green Marine signs a Memorandum of Cooperation with Transport Canada.

**NOVEMBER**

Green Marine hires a Program Manager – West Coast & United States and opens a new office in Seattle, Washington.

**JANUARY**

New indicator: waste management for ports and terminals.

**FEBRUARY**

The program's 100th participant is welcomed.

**NOVEMBER**

Green Marine hires a Program Manager – East Coast & Great Lakes and opens a new office in Halifax, Nova Scotia.

**JANUARY**

New indicator: underwater noise.

**MARCH**

New indicator: ship recycling.

**APRIL**

Green Marine Europe is officially launched!

2012

2014

2015

2016

2017

2020

# STEADY PROGRESS

The overall average for the 2019 results is 2.9 out of the 5 possible levels. While the average is consistent with the previous year's reporting, it actually reflects improvement by participants for several key reasons:

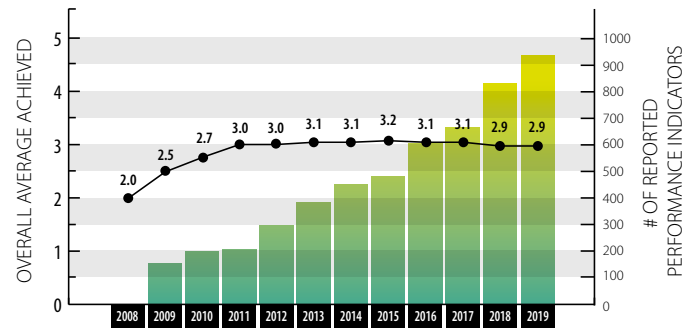
- Green Marine welcomed new participants whose initial levels tend to be lower as it takes some time to become familiar with the various detailed criteria and then implement actions to begin achieving the higher levels.
- The criteria for some performance indicators have been made more stringent to ensure Levels 2 through 5 are sufficiently demanding with respect to new or imminent regulations, emerging technologies, and/or scientifically recommended best practices.
- The program continues to expand its scope, requiring participants to respond to new issues that fundamentally change the way the industry operates by integrating a new awareness and setting a sustainable example. The progress being made in terms of reducing underwater noise is one key example. Another is the criteria that recognizes the reduction of waste at source through mindful purchasing practices.

New participants and additional criteria resulted in the filing of 159 self-evaluation reports for 2019, which is a 10% increase over 2018 when 144 were filed. (It should be noted that some companies file more than one report for their varied activities.)

Participants reported results on a total of 954 different performance indicators as part of their self-evaluations as opposed to only 147 in 2009.

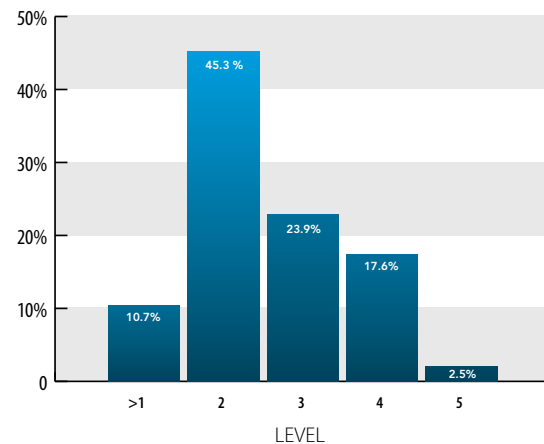
The number of submitted self-evaluation reports has increased 14% annually on average over the last decade.

**PARTICIPATION / PERFORMANCE**



The overall performance of the participants has remained steadily around 3.0 even while the number of participants, indicators and criteria have all significantly increased.

**PERCENTAGE OF PARTICIPANTS WITH AN AVERAGE AT OR ABOVE LEVELS 1, 2, 3, 4 AND 5**



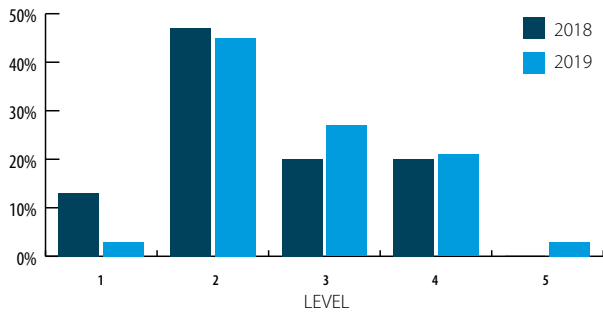
Overall improvement is evident by performance levels achieved. A full 90% of the participants now report a Level 2 or higher average (compared to 83% reported for 2018).

# MOST IMPROVED!

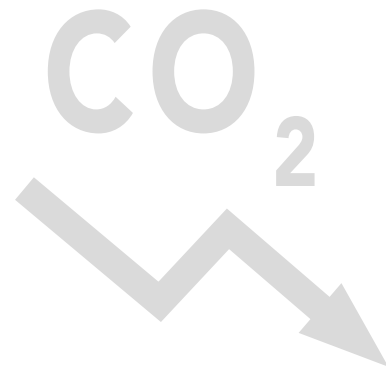
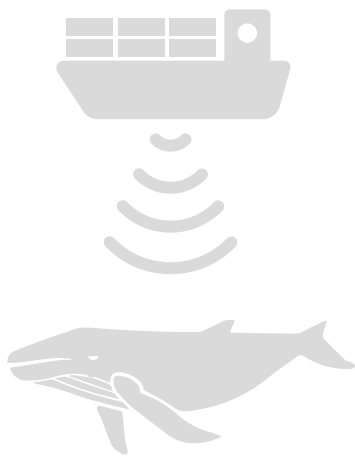
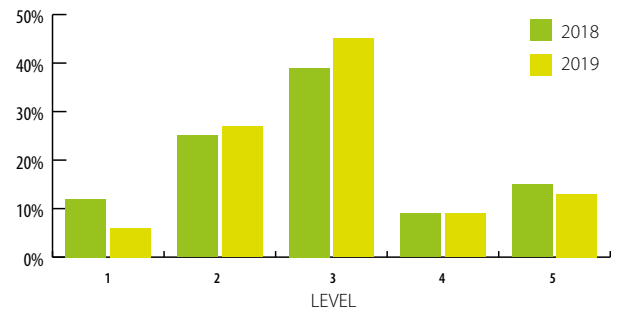
Ship owners moved up nine levels in their efforts to minimize underwater noise in 2019 with one company achieving Level 5 (Excellence and Leadership) for the first time. More than half of the applicable ship owners actively participate in collecting and providing whale sighting data and have developed and adopted a Marine Mammal Management Plan in order to reduce the potential adverse effects of vessels, especially within known sensitive marine areas.

On the landside, terminals, ports and shipyards moved up 19 levels, primarily by setting up inventories to benchmark and subsequently reduce greenhouse gas emissions.

**SHIP OWNERS UNDERWATER NOISE**



**LANDSIDE GHG**



# PROGRAM'S EVOLVING SCOPE:

The program has substantially expanded since it first began with six performance indicators. The criteria is reviewed annually to ensure that each of the four levels beyond the initial baseline of monitoring of regulations is sufficiently demanding while still in the realm of possibility. All of this is done with extensive consultation of the industry and representatives from relevant environmental NGOs, academic researchers and government agencies.

Green Marine has established a loyal membership in good part because the industry has a sense of ownership of the program at the same time as maritime enterprises are challenged to improve environmentally year over year. The program's scope is regularly broadened as new issues are prioritized and as the bar is set higher to keep criteria ahead of existing or expected regulations and well aligned with scientific understanding, emerging technologies and best management practices.

A new three-year strategic plan is currently under way to establish the membership's priorities and how the organization's resources can best be used to achieve Green Marine's next milestones.

○ Shipowners   
 ○ Ports and Seaway   
 ○ Terminals and shipyards



## PROGRAM UPDATES:

The Green Marine environmental certification program continues both to serve and to challenge the maritime industry to continually improve its sustainability beyond regulations with a framework that clearly sets out measurable priorities and progress.

In keeping with this core tenet, the program is reviewed annually to ensure that each of the four levels beyond Level 1 (the monitoring of regulations) is sufficiently challenging with respect to current, new or imminent regulations and best practices. Notable changes were made to the program for the 2019 reporting criteria as a result.

For ship owners, the **oily water performance indicator** was revised so that vessels are differentiated by vessel size ( $\geq$  or  $<$  400 gross tons) instead of by vessel type. The change ensures the criteria applies to all vessels, regardless of type.

Landside participants had newly added criteria regarding **waste management** to recognize the reduction of waste at source. At Level 2 this involves minimizing the use of disposable straws, single-use cups, and plastic bottles. Level 4 now calls for a purchasing policy that reduces the company's environmental impacts.

Ports seeking to achieve Level 3 (or higher) with respect to the performance indicator related to **greenhouse gases and air pollutants** must now either complete a port-wide equipment inventory or implement an emissions reduction program (such as incentivizing the use of cleaner fuels or coordinating the funding for cleaner running equipment upgrades). This is in addition to an earlier requirement to conduct a yearly GHG emissions report.

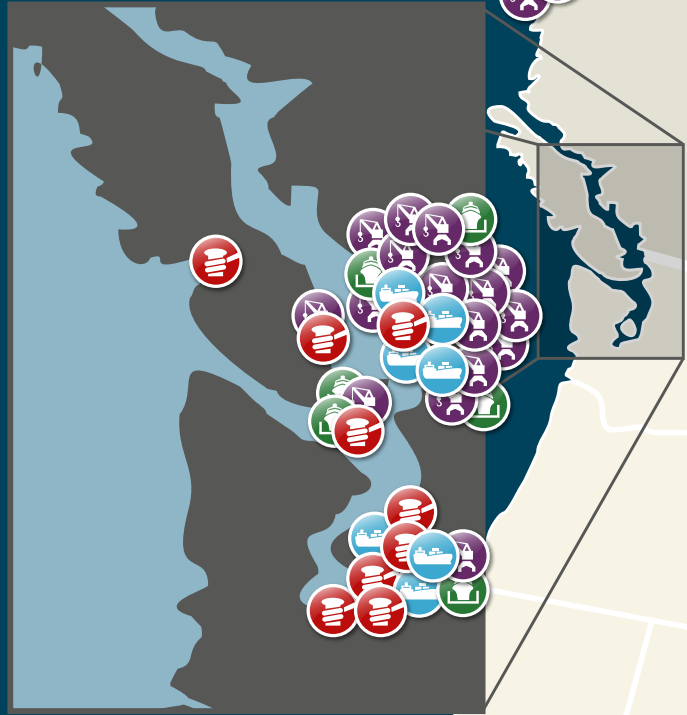
## PROGRAM DEVELOPMENT:

While it does not affect the 2019 reporting, a lot of effort was made by the membership as volunteers on technical and advisory committees last year to prepare for major changes to the program for the 2020 reporting year. These included revising the **pollutant air emissions (SOx & PM)** criteria to reflect the International Maritime Organization's significantly lower limits on sulphur from marine fuels. Whenever a major change is made to regulations, the entire applicable performance indicator must be reviewed and revised to create newly appropriate challenges at each level beyond regulation monitoring.

Extensive consultations were also done for the **new ship recycling and dismantling performance indicator** that has been added to the program for optional reporting in its first year (2020) and required thereafter. The new performance indicator addresses one of the most dangerous maritime-related activities in terms of health and safety, as well as causing environmental impacts. It challenges Green Marine's participants to work well ahead of IMO regulations that must still be approved by a number of nations.

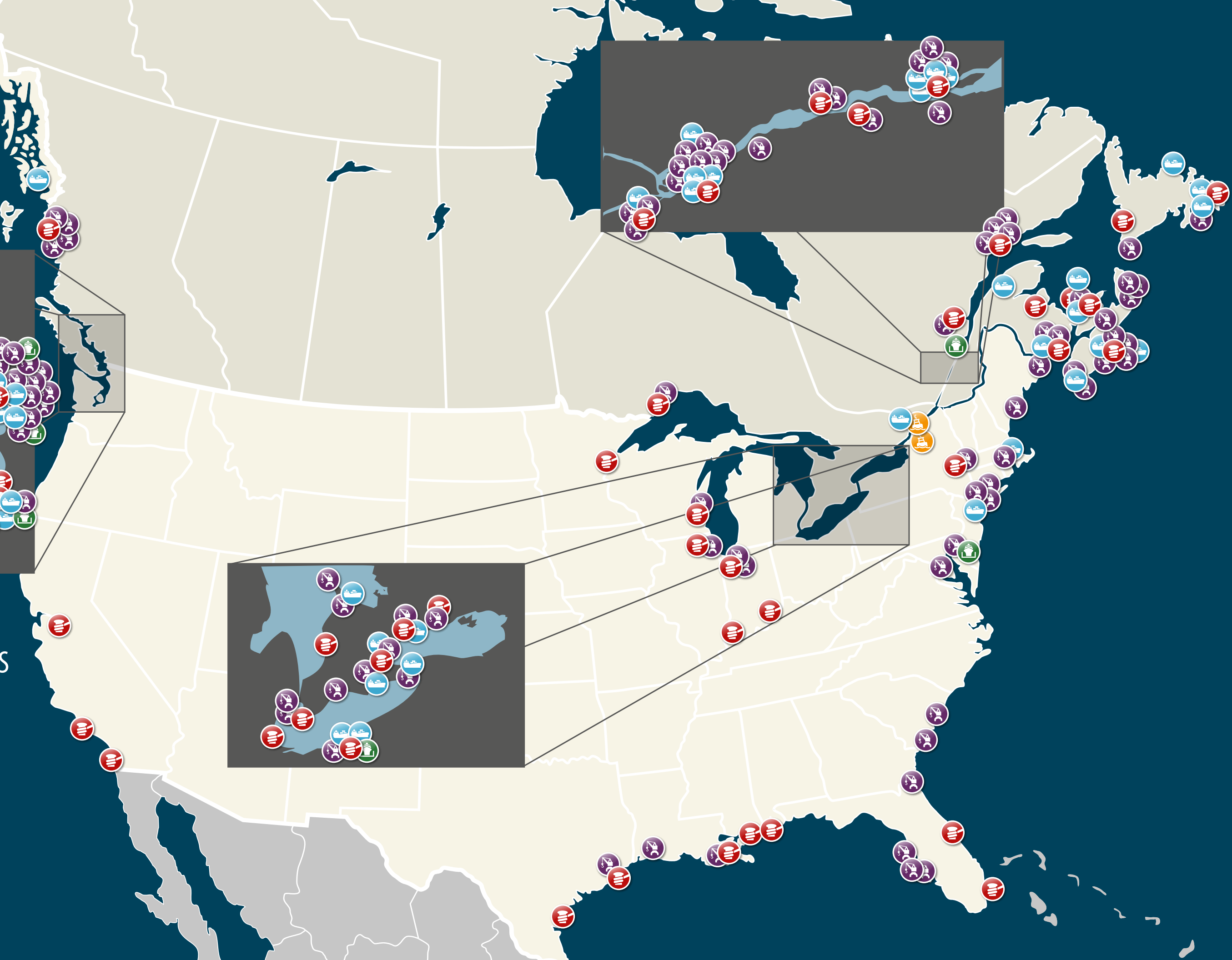
Work is also progressing on a **new community relations performance indicator** for landside participants. The new indicator will help participants benchmark their efforts in terms of effective communications and engagement with neighbouring communities. The performance indicator is on schedule to be finalized in 2020 for introduction in the 2021 program.





### THE PARTICIPANTS

-  SHIP OWNERS
-  PORTS
-  TERMINALS
-  SHIPYARDS
-  ST. LAWRENCE SEAWAY





# 2019 RESULTS



## INTERPRETATION NOTES


The term n.a. (not applicable) appears several times in the report's tables because the environmental issues addressed by the program do not necessarily apply to all participants. For example, a container terminal doesn't handle dry bulk commodities. An n.a. denotation could also refer to a situation in which a participant does not have full control over the operations on its premises. For example, a port cannot apply the Green Marine criteria where a terminal operator is in charge of facilities. Many port authorities oversee the leasing of port property and do not themselves operate terminals.

The published results indicate each participant's self-reported and verified performance within the Green Marine program's indicators. While the program's self-evaluation is comprehensive, it is not an exhaustive assessment of all environmental matters related to a participant's maritime operations. Green Marine has not itself evaluated the environmental performance of the participating enterprises. Each participant is required to submit all of the documentation for the performance level claimed for each indicator to an external verifier typically every two years for verification.

## COVID-19 ADAPTATION


The COVID-19 pandemic required an immediate halt to the scheduled in person verifications of performance results, given that most of the membership's office activities had to be shifted to home-based operations and verifiers faced both travel restrictions and social distancing requirements. With the hope that most regular business activities would resume within a few months, Green Marine granted an extension from May 8 to August 8, 2020, to participants wishing to get their 2019 results verified with the feasible means of doing so. In case not, Green Marine also granted a one-year postponement to all participants from their respective verification due dates to be fair to all and to avoid an overabundance of required verifications next year. However, the external verification remains a condition for certification: new participants are only certified after their initial verification is completed.

As a result, most of the 2019 performance results have not been verified. However, Green Marine continues to maintain the utmost confidence in their reliability. All of these results were initially prepared with the full expectation that they would independently be verified in due course. Any required adjustments in this year's results will duly be reported in the online version of this Annual Performance Report that is always posted on Green Marine's website.

| SHIP OWNERS  | AQUATIC INVASIVE SPECIES | AIR EMISSIONS (SOX & PM) | AIR EMISSIONS (NOX) | GREENHOUSE GASES | OILY WATER | GARBAGE MANAGEMENT | UNDERWATER NOISE |
|---|--------------------------|--------------------------|---------------------|------------------|------------|--------------------|------------------|
| Alaska Marine Highway System  | 3                        | 2                        | 2                   | 2                | 2          | 2                  | 3                |
| Algoma Central Corporation  | 4                        | 4                        | 4                   | 4                | 5          | 4                  | 4                |
| Atlantic Towing Limited   | 5                        | 3                        | 3                   | 3                | 3          | 4                  | 3                |
| Bay Ferries Limited*  | n.a.                     | 2                        | 2                   | 2                | 2          | 2                  | 2                |
| British Columbia Ferry Services Inc.  | n.a.                     | 3                        | 3                   | 3                | 3          | 2                  | 3                |
| Canada Steamship Lines  | 4                        | 4                        | 4                   | 4                | 4          | 5                  | 4                |
| Canfornav   | 5                        | 4                        | 3                   | 4                | 5          | 5                  | 3                |
| Clipper Vacations*  | n.a.                     | 3                        | 3                   | 2                | 2          | 2                  | 3                |
| Coastal Shipping Limited*   | 2                        | 1                        | 1                   | 1                | 2          | 2                  | 2                |
| Croisières AML  | n.a.                     | 3                        | 3                   | 3                | 4          | 2                  | 5                |
| CSL International   | 5                        | 3                        | 3                   | 5                | 4          | 5                  | 4                |
| CTMA  | 2                        | 3                        | 3                   | 2                | 2          | 3                  | 3                |
| Federal Fleet Services  | 3                        | 2                        | 2                   | 2                | 2          | 3                  | 2                |
| Fednav Limited  | 5                        | 4                        | 4                   | 4                | 4          | 5                  | 3                |
| Great Lakes Towing Company  | n.a.                     | 1                        | 1                   | 1                | 3          | 2                  | n.a.             |
| Groupe Desgagnés  | 5                        | 5                        | 5                   | 5                | 4          | 4                  | 4                |
| Guardian Ship Management Inc  | 3                        | 3                        | 3                   | 3                | 3          | 3                  | 2                |
| Horizon Maritime Services Ltd.  | 5                        | 4                        | 3                   | 3                | 3          | 3                  | 2                |
| Interlake Steamship Company   | 4                        | 3                        | 2                   | 2                | 2          | 2                  | n.a.             |
| Laurentian Pilotage Authority   | n.a.                     | 2                        | 2                   | 2                | 2          | 2                  | 4                |
| Lower Lakes Towing Ltd.   | 3                        | 3                        | 3                   | 2                | 2          | 2                  | n.a.             |
| Marine Atlantic Inc.  | n.a.                     | 3                        | 3                   | 3                | 3          | 3                  | 3                |
| McAsphalt Marine Transportation Ltd.  | 5                        | 5                        | 3                   | 3                | 3          | 3                  | 2                |
| McKeil Marine Limited   | 3                        | 3                        | 3                   | 3                | 4          | 3                  | 1                |
| North Arm Transportation Ltd.   | n.a.                     | 3                        | 3                   | 2                | 4          | 3                  | 2                |
| Northumberland Ferries Limited*   | n.a.                     | 2                        | 2                   | 2                | 2          | 2                  | 2                |
| Ocean Remorquage Québec Inc.  | n.a.                     | 5                        | 3                   | 4                | 4          | 2                  | 2                |
| Oceanex Inc.  | 3                        | 4                        | 4                   | 3                | 5          | 4                  | 4                |
| Owen Sound Transportation Company   | n.a.                     | 2                        | 2                   | 2                | 2          | 3                  | n.a.             |
| PONANT  | 5                        | 5                        | 5                   | 4                | 5          | 5                  | 2                |
| Puget Sound Pilots  | n.a.                     | 2                        | 2                   | 1                | 1          | 1                  | 2                |
| Reformar  | 3                        | 3                        | 3                   | 3                | 2          | 3                  | 3                |
| Saam Towage Canada Inc.   | n.a.                     | 4                        | 3                   | 3                | 2          | 2                  | 2                |
| Seaspan ULC   | n.a.                     | 4                        | 4                   | 3                | 3          | 4                  | 4                |
| Secunda Canada LP*  | 1                        | 2                        | 2                   | 2                | 1          | 1                  | 2                |
| Société des traversiers du Québec   | n.a.                     | 3                        | 3                   | 3                | 2          | 2                  | 2                |
| Washington State Ferries  | n.a.                     | 3                        | 3                   | 2                | 2          | 1                  | 2                |


n.a.: non applicable

\* New participant whose results have not yet been verified.

| TERMINALS AND STEVEDORING COMPANIES            | GHG AND AIR POLLUTANTS | SPILL PREVENTION | DRY BULK HANDLING AND STORAGE | COMMUNITY IMPACTS | ENVIRONMENTAL LEADERSHIP | WASTE MANAGEMENT |
|---|------------------------|------------------|-------------------------------|-------------------|--------------------------|------------------|
| ABC Recycling Ltd.  | 2                      | 2                | n.a.                          | 2                 | 3                        | 2                |
| AltaGas   | 2                      | 5                | n.a.                          | 4                 | 2                        | 2                |
| Bay Ferries Limited*  | 2                      | 2                | 2                             | 2                 | 2                        | 2                |
| British Columbia Ferry Services Inc.  | 2                      | 3                | n.a.                          | 2                 | 3                        | 2                |
| Ceres Terminals Inc.  | 3                      | 5                | n.a.                          | 3                 | 4                        | 3                |
| DP World Prince Rupert Inc.   | 3                      | 5                | n.a.                          | 5                 | 5                        | 3                |
| DP World-Fraser Surrey  | 5                      | 4                | 5                             | 5                 | 5                        | 5                |
| Empire Stevedoring Co. Ltd. (Montréal)  | 3                      | 3                | n.a.                          | 4                 | 2                        | 2                |
| Federal Marine Terminals Inc. (Burns Harbor, Hamilton, Milwaukee, Thorold, Albany, Eastport, Port Manatee, Tampa, Lake Charles) | 4                      | 3                | 4                             | 3                 | 2                        | 2                |
| G3 Canada Limited (Hamilton)*   | 4                      | 5                | 5                             | 4                 | 3                        | 2                |
| G3 Canada Limited (Quebec)  | 3                      | 2                | 3                             | 2                 | 3                        | 2                |
| G3 Canada Limited (Thunder Bay)*  | 3                      | 2                | 3                             | 2                 | 3                        | 2                |
| G3 Canada Limited (Trois-Rivières)  | 3                      | 4                | 4                             | 2                 | 3                        | 2                |
| G3 Terminal Vancouver*  | 4                      | 5                | 5                             | 5                 | 4                        | 3                |
| GCT Global Container Terminals Inc. (GCT Bayonne, GCT Deltaport, GCT New York, GCT Vanterm)                                     | 5                      | 5                | n.a.                          | 5                 | 5                        | 4                |
| Glencore (Quebec)   | 4                      | 5                | 5                             | 5                 | 5                        | 3                |
| Groupe Desgagnés Inc. (Relais Nordik, Sept-Îles)  | 3                      | 3                | n.a.                          | 2                 | 2                        | 5                |
| Groupe Somavrac - Porlier Express (Sept-Îles)   | 3                      | 3                | n.a.                          | 3                 | 3                        | 3                |
| Groupe Somavrac - Servitank Inc. (Bécancour)  | 3                      | 2                | n.a.                          | 2                 | 2                        | 2                |
| Iron Ore Company of Canada  | 3                      | 5                | 5                             | 5                 | 5                        | 3                |
| Kildair Service ULC   | 3                      | 5                | n.a.                          | 2                 | 2                        | 2                |
| Logistec Corporation (Montréal, Contrecoeur, Halifax, Saint John, Trois-Rivières, Rideau Bulk, Sept-Îles, Thunder Bay, Toronto) | 3                      | 2                | 3                             | 2                 | 3                        | 2                |
| Logistec USA Inc. (Balterm, Brunswick, Crossglobe, Port Manatee)  | 3                      | 4                | 2                             | 2                 | 3                        | 2                |
| Marine Atlantic Inc.  | 3                      | 3                | n.a.                          | 5                 | 4                        | 3                |
| McAsphalt Industries Ltd.   | 2                      | 4                | n.a.                          | 3                 | 4                        | 3                |
| Montreal Gateway Terminals Partnership  | 5                      | 4                | n.a.                          | 5                 | 5                        | 3                |
| Neptune Bulk Terminals (Canada) Ltd.  | 5                      | 5                | 5                             | 5                 | 5                        | 4                |
| New Orleans Terminal LLC  | 2                      | 5                | n.a.                          | 5                 | 4                        | 4                |
| Norcan Petroleum Group Inc.   | 3                      | 3                | n.a.                          | 3                 | 3                        | 3                |
| Northumberland Ferries Limited*   | 2                      | 2                | n.a.                          | 2                 | 2                        | 2                |
| Pacific Coast Terminals Co. Ltd.  | 3                      | 4                | 5                             | 5                 | 4                        | 3                |
| PSA Halifax   | 4                      | 5                | n.a.                          | 2                 | 3                        | 2                |
| QSL - Anse au foulon  | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL - Baie-Comeau   | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL - Bas St-Laurent (Matane, Rimouski, Cacouna)  | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL - Beauport  | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL - Bécancour   | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL - Belledune   | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL - Côte Ste-Catherine  | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL - Grande-Anse   | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL - Hamilton  | 3                      | 2                | 2                             | 2                 | 2                        | 1                |
| QSL - Oshawa  | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL - Sept-Îles   | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL - Sorel-Tracy   | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| QSL America - NASCO   | 2                      | 2                | 2                             | 2                 | 2                        | 2                |
| Ridley Terminals Inc.   | 5                      | 4                | 5                             | 5                 | 5                        | 4                |
| Rio Tinto (Port-Alfred)   | 5                      | 5                | 5                             | 5                 | 5                        | 5                |
| Squamish Terminals Ltd. (Member of The Western Group)   | 5                      | 3                | n.a.                          | 5                 | 4                        | 4                |
| Sterling Fuels Limited  | 3                      | 5                | n.a.                          | 3                 | 4                        | 3                |
| Termontréal Inc. (Viau and Maisonneuve)   | 2                      | 2                | n.a.                          | 2                 | 3                        | 2                |
| Tidal Coast Terminals Ltd.  | 3                      | 2                | 2                             | 3                 | 2                        | 3                |
| Trans Mountain (Westridge Terminal)   | 3                      | 3                | n.a.                          | 3                 | 4                        | 3                |
| Tymac Launch Service Ltd.   | 3                      | 2                | n.a.                          | 2                 | 3                        | 3                |


n.a.: non applicable

\* New participant whose results have not yet been verified.


| TERMINALS AND STEVEDORING COMPANIES  | GHG AND AIR POLLUTANTS | SPILL PREVENTION | DRY BULK HANDLING AND STORAGE | COMMUNITY IMPACTS | ENVIRONMENTAL LEADERSHIP | WASTE MANAGEMENT |
|---|------------------------|------------------|-------------------------------|-------------------|--------------------------|------------------|
| Valero Energy (Jean-Gaulin Refinery)  | 4                      | 5                | n.a.                          | 5                 | 5                        | 3                |
| Valero Energy (Montreal East Terminal)  | 3                      | 2                | n.a.                          | 2                 | 3                        | 3                |
| Valleytank Inc.   | 3                      | 5                | n.a.                          | 2                 | 2                        | 2                |
| Valport Maritime Services Inc.  | 3                      | 2                | 2                             | 2                 | 2                        | 2                |
| Washington State Ferries  | 3                      | 2                | n.a.                          | 2                 | 2                        | 1                |
| Waterfront Petroleum Terminal Company   | 2                      | 3                | 2                             | 2                 | 3                        | 2                |
| Waterson Terminal Services LLC  | 2                      | 3                | 2                             | 2                 | 2                        | 1                |
| West Coast Reduction Ltd.   | 4                      | 5                | n.a.                          | 3                 | 2                        | 2                |
| Western Stevedoring Co. Ltd. (Lynnterm)   | 3                      | 2                | n.a.                          | 2                 | 3                        | 2                |
| Westshore Terminals Ltd.  | 3                      | 2                | 2                             | 5                 | 2                        | 2                |
| Yellowline Asphalt Products Ltd.  | 2                      | 5                | n.a.                          | 5                 | 2                        | 2                |

n.a.: non applicable

\* New participant whose results have not yet been verified.


| SAINT LAWRENCE SEAWAY  | GHG AND AIR POLLUTANTS | SPILL PREVENTION | COMMUNITY IMPACTS | ENVIRONMENTAL LEADERSHIP | WASTE MANAGEMENT |
|---|------------------------|------------------|-------------------|--------------------------|------------------|
| Saint Lawrence Seaway Development Corporation / St. Lawrence Seaway Management Corporation †            | 4,1                    | 5,0              | 4,1               | 5,0                      | 4,1              |

† Each Seaway corporation filed an individual evaluation to Green Marine and had its results separately verified, but they both opted to publish their results jointly to reflect their allied efforts in achieving environmental excellence. The published results are the weighted average of the individual results based on the number of locks managed by each Seaway corporation.

| SHIPYARDS  | GHG AND AIR POLLUTANTS | SPILL PREVENTION | COMMUNITY IMPACTS | ENVIRONMENTAL LEADERSHIP | WASTE MANAGEMENT |
|--|------------------------|------------------|-------------------|--------------------------|------------------|
| Blount Boats, Inc.*  | 2                      | 2                | 2                 | 1                        | 2                |
| British Columbia Ferry Services Inc.   | 2                      | 3                | 2                 | 3                        | 2                |
| Great Lakes Shipyard   | 2                      | 2                | 1                 | 1                        | 2                |
| Motive Power Marine  | 2                      | 2                | 2                 | 1                        | 1                |
| Ocean Industries Inc.  | 3                      | 2                | 2                 | 3                        | 2                |
| Point Hope Maritime Ltd.*  | 2                      | 4                | 2                 | 3                        | 2                |
| Seaspan Shipyards and Terminals  | 3                      | 4                | 4                 | 4                        | 4                |
| Washington State Ferries   | 3                      | 2                | 2                 | 2                        | 1                |

\* New participant whose results have not yet been verified.



| PORT AUTHORITIES  | GHG & AIR POLLUTANTS | SPILL PREVENTION | DRY BULK HANDLING AND STORAGE | COMMUNITY IMPACTS | ENVIRONMENTAL LEADERSHIP | WASTE MANAGEMENT | UNDERWATER NOISE |
|--|----------------------|------------------|-------------------------------|-------------------|--------------------------|------------------|------------------|
| Alabama State Port Authority   | 4                    | 2                | 2                             | 2                 | 2                        | 2                | n.a.             |
| Bécancour Waterfront Industrial Park   | 3                    | 2                | n.a.                          | 2                 | 4                        | 2                | n.a.             |
| Belledune Port Authority   | 1                    | 2                | n.a.                          | 1                 | 2                        | 1                | 1                |
| Canaveral Port Authority   | 2                    | 5                | n.a.                          | 2                 | 3                        | 2                | 2                |
| Duluth Seaway Port Authority   | 2                    | 5                | 4                             | 5                 | 5                        | 2                | n.a.             |
| Greater Victoria Harbour Authority   | 3                    | 4                | n.a.                          | 5                 | 5                        | 3                | 2                |
| Halifax Port Authority   | 5                    | 5                | n.a.                          | 4                 | 5                        | 5                | 2                |
| Hamilton-Oshawa Port Authority (Hamilton)  | 3                    | 4                | n.a.                          | 4                 | 4                        | 4                | n.a.             |
| Hamilton-Oshawa Port Authority (Oshawa)  | 2                    | 2                | n.a.                          | 4                 | 3                        | 2                | n.a.             |
| Illinois International Port Authority*   | 1                    | 2                | n.a.                          | 2                 | 1                        | 2                | n.a.             |
| Montreal Port Authority  | 5                    | 5                | n.a.                          | 5                 | 5                        | 5                | n.a.             |
| Northwest Seaport Alliance   | 5                    | 3                | n.a.                          | 2                 | 4                        | 3                | 1                |
| Port Alberni Port Authority  | 2                    | 2                | n.a.                          | 2                 | 1                        | 3                | 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.                          | 1                 | 1                        | 3                | n.a.             |
| Port of Anacortes  | 1                    | 2                | 2                             | 1                 | 3                        | 2                | 1                |
| Port of Cleveland  | 3                    | 4                | 3                             | 2                 | 4                        | 2                | n.a.             |
| Port of Corpus Christi   | 2                    | 2                | 2                             | 2                 | 3                        | 2                | 1                |
| Port of Everett  | 1                    | 3                | 2                             | 2                 | 3                        | 2                | 1                |
| Port of Goderich*  | 2                    | 1                | 1                             | 1                 | 1                        | 1                | n.a.             |
| Port of Gulfport   | 2                    | 4                | 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                 | 3                        | 2                | n.a.             |
| Port of Indiana - Jeffersonville   | 2                    | 2                | n.a.                          | 1                 | 1                        | 1                | n.a.             |
| Port of Indiana - Mount Vernon   | 2                    | 3                | n.a.                          | 2                 | 2                        | 1                | n.a.             |
| Port of Monroe   | 2                    | 2                | 2                             | 2                 | 2                        | 2                | n.a.             |
| Port of Nanaimo  | 2                    | 5                | n.a.                          | 3                 | 4                        | 2                | 2                |
| Port of New Orleans  | 2                    | 4                | n.a.                          | 2                 | 5                        | 3                | n.a.             |
| Port of Olympia  | 1                    | 4                | 3                             | 1                 | 1                        | 1                | 1                |
| Port of San Diego  | 5                    | 5                | n.a.                          | 5                 | 5                        | 5                | 1                |
| Port of Seattle  | 5                    | 5                | n.a.                          | 5                 | 5                        | 5                | 2                |
| Port of Stephenville*  | 1                    | 2                | 1                             | 2                 | 1                        | 2                | 1                |
| Port of Stockton   | 2                    | 5                | 3                             | 2                 | 5                        | 2                | n.a.             |
| Port of Valleyfield  | 2                    | 2                | n.a.                          | 2                 | 3                        | 2                | n.a.             |
| Port Saint John  | 3                    | 4                | n.a.                          | 2                 | 3                        | 5                | 2                |
| PortsToronto   | 4                    | 2                | 2                             | 2                 | 4                        | 2                | n.a.             |
| Prince Rupert Port Authority   | 4                    | 5                | n.a.                          | 5                 | 5                        | 5                | 3                |
| Québec Port Authority  | 5                    | 5                | n.a.                          | 5                 | 5                        | 5                | n.a.             |
| Saguenay Port Authority  | 3                    | 5                | n.a.                          | 5                 | 3                        | 2                | 2                |
| Sept-Îles Port Authority   | 3                    | 3                | 3                             | 3                 | 5                        | 3                | 2                |
| St. John's Port Authority  | 3                    | 3                | n.a.                          | 4                 | 3                        | 4                | 2                |
| Summerside Port Corporation Inc.*  | 2                    | 2                | 2                             | 2                 | 2                        | 2                | 1                |
| Thunder Bay Port Authority   | 3                    | 2                | n.a.                          | 2                 | 3                        | 2                | n.a.             |
| Trois-Rivières Port Authority  | 3                    | 5                | n.a.                          | 2                 | 3                        | 2                | n.a.             |
| Vancouver Fraser Port Authority  | 5                    | 3                | n.a.                          | 5                 | 5                        | 3                | 4                |
| Windsor Port Authority   | 3                    | 3                | n.a.                          | 5                 | 3                        | 2                | n.a.             |

n.a.: non applicable

\* New participant whose results have not yet been verified.

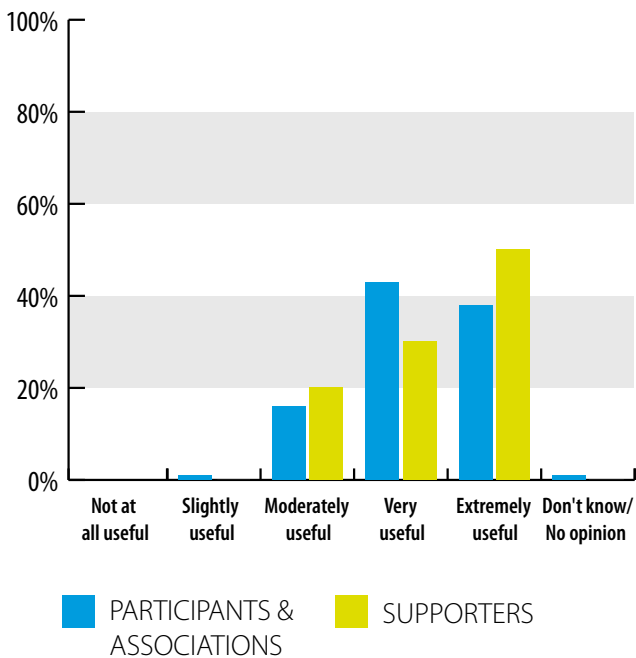
# STRATEGIC PLANNING SURVEY

In preparation for the development of its 2020-2023 strategic plan, Green Marine sent a survey to its membership to assess the framework's perceived usefulness and difficulty and to gain insight on members' development priorities, target audiences, as well as Green Marine's value proposition.

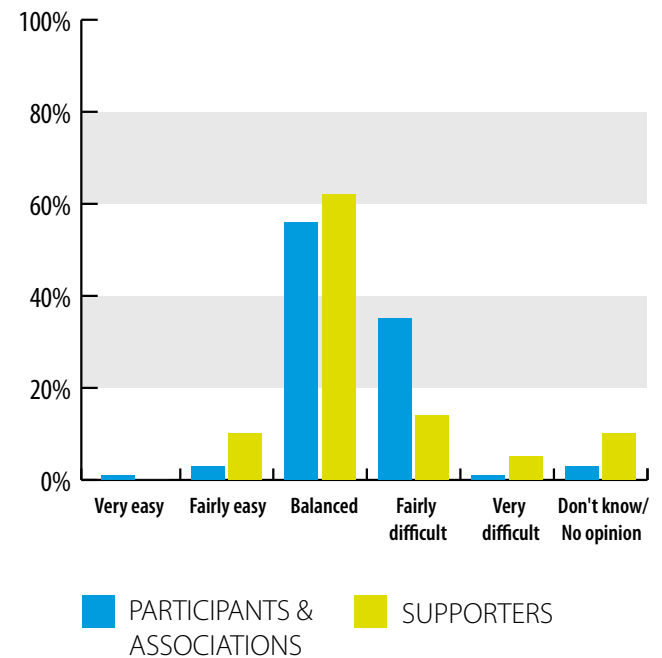
The survey indicated that the vast majority view the program as very or extremely useful to improve the industry's overall environmental performance: 81% of participants indicated so, as did 80% of supporters.

In terms of the program's level of difficulty, 91% of participants (combined with association members) consider the requirements to be balanced or fairly difficult. Supporters are in significant agreement with 62% finding the criteria balanced and 14% considering them fairly difficult. This feedback aligns with the goals of Green Marine's founders – industry CEOs who wanted a program that significantly and increasingly challenges participants at each of the five performance levels while still being possible to achieve through considerable effort.

## HOW DO YOU RATE THE USEFULNESS OF GREEN MARINE'S CERTIFICATION PROGRAM TO IMPROVE THE MARINE INDUSTRY'S OVERALL ENVIRONMENTAL PERFORMANCE?



## WHAT IS YOUR PERCEPTION OF THE GENERAL LEVEL OF DIFFICULTY OF GREEN MARINE'S ENVIRONMENTAL PROGRAM REQUIREMENTS?





## INNOVATION

The new **Smart Guide** took well over a year to develop. It makes it simpler and faster for participants to relate their performance results directly online, while at the same time facilitating better data management by the Green Marine secretariat. The improved data collection will inform the program's evolution, while maintaining each participant's confidentiality. The project's second phase, which is expected to be implemented next year, will allow each participant to grant restricted access to a verifier so that all of the calculations and/or other data that went into determining each response can be reviewed.



## OUTREACH



Green Marine has set up a [LinkedIn](#) page to further enhance its social media outreach. The LinkedIn page is in addition to Green Marine's website and Twitter account. As a primarily business-oriented platform, LinkedIn was deemed as a well-suited path to communicate with existing and potential membership that frequent the site (in some cases the only social media platform) as part of their recruitment and career-planning efforts.

## SETTING A POSITIVE EXAMPLE

For the second consecutive year, the Green Marine staff operated with carbon neutrality. A total of 48.2 tonnes of CO<sub>2</sub> equivalent of all work-related travel (including daily commutes), infrastructure operations, waste management, electricity and paper use has been offset with high-quality carbon offset credits through the reputable Planetair organization and will go towards reforestation efforts. It represents an average annual footprint of 8 tonnes per employee.

The GreenTech 2019 conference held in Cleveland, Ohio, also received Planetair certification as a carbon-neutral event. The conference marked the sixth consecutive year that Green Marine purchased high-quality carbon offset credits to mitigate the conference's environmental footprint. The conference site, accommodations, attendee transportation, food, paper and other supplies were all factored into the calculations. Mindful of the impacts, Green Marine is pleased to report that the carbon footprint in terms of CO<sub>2</sub> emitted per attendee was reduced by 26% in 2019 as compared to a year earlier.



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