

DIRECTORS' REPORT

Introduction

During 2018/19, Clear Seas has made significant strides in advancing the understanding of issues related to sustainable marine shipping in Canada. The growth of its reach has been impressive and it continues to deliver on its mandate as set out in its constitution and funding agreements.

The headway Clear Seas is making towards becoming the leading source of impartial information on marine shipping in Canada is captured in this annual report – both qualitatively and quantitatively.

Clear Seas has continued to facilitate a better understanding of the risks, benefits, and best practices for safe and sustainable marine shipping. The organization's efforts support the development of evidence-based public policy and bring clarity to the decision-making processes for policy makers. Clear Seas' digital audience continues to grow at an impressive rate – more than 98,000 users had visited the site by March 31, 2019. Website and social media users increased by 500% and 100% respectively over the past two years.

Overall, it has been a year of many achievements. Clear Seas' research influenced work underway by the Canadian Coast Guard on emergency tow vessels and supported the House of Commons and the Senate of Canada in their deliberations on vital issues around public policy and sustainability. Additionally, Clear Seas' website launched in French in August 2018, making impartial fact-based research material available to tens of thousands of people across the country in both official languages.

In this age of often questionable claims and mistruths, Clear Seas continues to build its profile as a source of trusted information on sustainable marine shipping. The organization will continue in its efforts to deliver professional, reliable and objective information and secure sustainable funding.

Summary

Canada's Oceans Protection Plan is in its third year with a greater focus on marine mammals on both coasts, particularly North Atlantic right whales and Southern Resident killer whales. Against these developments, the perennial debate on marine safety and tankers on Canada's Pacific Coast continued, and sustainability issues grew in importance – further compounded by the pressure of climate change and preparations to implement new emissions standards for shipping by January 2020. The context continues to present a charged public policy atmosphere.

In this polarizing discussion, there is much misinformation, shared on social and other media without the filter of critical analysis or deliberation, which effectively acts as noise to mask a frank discussion of the true issues at play. Clear Seas sees a great opportunity for the organization to bring trusted, credible and fact-based information to help people rise above the noise and to make informed decisions.

This year's principal focus was on the timeliness and importance of Clear Seas' products. To meet our goals and objectives, we had streamlined our internal processes including the research selection process and produced research materials that were relevant and timely. Clear Seas prizes accuracy as essential and remains committed to delivering material of the highest standard.

Clear Seas' value is to build trust through a voice that:

- + Provides decision makers with quality materials required for informed decisions;
- + Promotes the continual improvement of the shipping industry;
- + Improves public understanding and confidence.

The Clear Seas Mandate

As outlined in its founding documents, including in the Transport Canada Contribution Agreement, Clear Seas was founded to:

- + Facilitate a better understanding of the risks, benefits, and best practices for safe and sustainable marine shipping;
- + Bring clarity to decision-making processes;
- + Ensure that evidence-based information and best practices are shared with Canadians and the international community.

Clear Seas incorporates these principles into its work each day and this report demonstrates how the Clear Seas team worked to meet each of them in the past year.

Communicating Complex Issues

Clear Seas continued to advance a research plan aimed at delivering relevant, high value products. The organization is developing a reputation within the community and among its users as a leader in communicating complex issues in an accessible way. As debates become more intense and heated around climate change, energy production, and the risks associated with marine shipping, it is important that trusted and comprehensible sources like Clear Seas have a platform to provide fact-based, impartial research.

In the past year, Clear Seas launched two new key issues pages (with a third available in May 2019), seven blog articles, and two resource toolkits. Clear Seas' website became fully bilingual in August 2018 and the organization has set a key milestone for simultaneous publication in both official languages by the end of December 2019. Clear Seas now has a total of 7 key issues pages, 23 blog articles, 7 research reports, and 13 research digests. Clear Seas also provides a range of infographics to facilitate understanding of multifaceted marine shipping concepts.

The key issues pages are particularly well-received by the full range of stakeholders for their comprehensive review of the available information presented in a balanced, factual and engaging way. Each key issue is an opportunity to clarify misperceptions and provide accurate, trustworthy information on a topic that is of general interest to the public and of particular relevance to the national discussion on commercial marine shipping.

One of the organization's key indicators of success is its ability to provide decision-quality materials that can enrich policy-making decisions. Clear Seas provided evidence in response to invitations from the Standing Senate Committee on Transport and Communications assessing Bills C-86 and C-48; and the House of Commons Standing Committee on Transport, Infrastructure and Communities on Bill C-86.

When developing new topics to research, Clear Seas makes considerable efforts to scope projects to address current and high value topics while avoiding duplication of internal and external effort.

The past year saw the continued evolution of the Research Advisory Committee (RAC), an advisory group of six individuals selected for their expertise and diverse perspectives. The RAC was formed in 2016 and continues to play a critical function in evaluating and making recommendations on the research programme and supporting Clear Seas' efforts to produce independent and credible research. Consulting with the RAC and other important stakeholders ensured that projects met strict criteria and would withstand strict scrutiny.

In total, the organization's research results and ability to communicate in an accessible and trusted fashion are demonstrations of the commitment to fulfilling the outcomes in Clear Seas' founding agreements.

Mobilizing Knowledge

Research Reports

Clear Seas published two research reports during this fiscal year: *Emergency Towing Vessel Needs Assessment*, published in September 2018; and the *Public Opinion Poll – Canadians' Attitudes Toward Marine Shipping* conducted by the Angus Reid Institute and published in December 2018. In addition, significant progress was made on several other projects including the *Availability of Tugs of Opportunity in Canada's Pacific Region* (published July 2019).

Marine Transportation Corridors Initiative

In 2017, Clear Seas undertook a layered multi-year analysis to describe the risks related to marine shipping activities and assist in marine spatial planning on Canada's Pacific coast. The research explores multiple aspects of marine safety. The initiative's components are:

- + Vessel Drift and Response Analysis (published March 2018);
- + Emergency Towing Vessel Needs Assessment (published 2018);
- + Availability of Tugs of Opportunity in Canada's Pacific Region (published 2019);
- + Vessel Traffic Analysis of Canada's Pacific Coast, and
- + Assessing Sensitivity of Coastal Areas to Oil Spills.

The last two titles above are planned to be published in the coming months.

Vessel Drift and Response Analysis, published in March 2018, was the first in the series to determine how ship routing and the location and availability of Emergency Tow Vessels (ETVs) or rescue tugs might influence the potential for the rescue of a disabled vessel before it can drift aground. Since its publication, the research has influenced changes to the Canadian Coast Guard's "CANSARP Maritime Search Planning Tool" and the leeway rates used. This outcome validates the relevance and timeliness of Clear Seas' work.

The *Emergency Towing Vessel Needs Assessment* report provided a comprehensive review of emergency towing vessel needs for different types of large, high windage ships. Clear Seas commissioned Vard Marine Inc. to examine the capabilities which a single ETV should have to be able to render assistance to a disabled ship drifting onto Canada's Pacific coast. The results are intended to inform decision makers, response professionals and the public regarding the capabilities that are required to effectively respond to emergency towing scenarios.

Seven large ship types were selected to represent ships either operating in Canadian coastal waters or expected to do so in the future. The analysis used wind and wave data with various levels of severity for Canada's Pacific coast to identify towing vessel needs.

Public Opinion Poll: Canadians' Attitudes Toward Marine Shipping

Working in partnership with the Angus Reid Institute, in the Fall of 2018 Clear Seas explored the public's attitude toward the shipping industry – building on a [benchmark study](#) first conducted in March 2016. The research shows the public's support of and appetite for fact-based information on maritime shipping that supports the foundation of our funders' agreement.

A majority of Canadians believe transporting goods by sea is safe, and most say marine shipping is growing in importance in this era of heightened global trade uncertainty. Today, the Canadian public places a higher degree of importance on marine shipping than it did two years ago. Greater numbers now say the industry is "critically important" to the Canadian economy, Canada's access to imported goods, and Canada's ability to access export markets than did in 2016.

As they were in 2016, Canadians remain concerned about the prospect of oil and fuel spills and water pollution, even as they express confidence that shipping is generally safe and well-regulated. British Columbians tend to be most concerned about the safety of shipping petroleum in Canadian waters, while those in the Atlantic provinces

and Albertans – likely reflecting the prominence of petroleum resource extraction and transportation in their provinces – are most confident.

New to the poll in 2018 was a question about the federal government's Oceans Protection Plan. Results indicate that 14% of Canadians are certain they've heard of the plan, and for those who have not heard of it, once it is explained, most Canadians have a high level of confidence in the plan's ability to increase marine shipping safety.

The following studies are underway and expected to be completed in the coming year.

Commercial Shipping Issues in Canada's North (with MEOPAR)

In partnership with MEOPAR, Clear Seas has funded a team led by Dr. Jackie Dawson of the University of Ottawa for a two-year study to examine marine shipping traffic in the Northwest Passage in the Canadian Arctic. This project, now fully underway, is expected to contribute to knowledge that will support planning and policy-making discussions regarding this sensitive region. The project is studying shipping trends over the past thirty years to identify potential risks and will make recommendations for establishing shipping routes and best practices within the study area. The project is expected to be complete in August 2020.

Environmental Impact of Exhaust Gas Cleaning Systems (Scrubbers) in Canadian Waters

Clear Seas commissioned Alion Science and Technology (Canada) Corporation to conduct a comprehensive study on the use of open- and closed-loop scrubbers to reduce sulphur emissions from ships. The study will first investigate the environmental impact (including emissions, ocean acidification, eutrophication, and heavy metals) from different types of scrubbers compared to compliant fuel (such as low sulphur fuel oil). The environmental impact on coastal ecosystems from open-loop scrubbers will then be considered under a variety of scenarios relevant to the Pacific, Atlantic, and Arctic coasts. The results are intended to provide evidence-based information for policy makers and industry to consider when making decisions about the use of or restrictions on scrubbers.

Reducing Greenhouse Gases - Analysis of Lifecycle Emissions of Marine Fuels

Clear Seas commissioned Alion Science and Technology (Canada) Corporation to conduct a comprehensive literature analysis of the climate change impacts of a range of marine fuels. The fuel types to be investigated in this study include marine diesel, biofuels, gas fuels, alcohol fuels, and synthetic fuels. The study will first assess the full lifecycle greenhouse gas (GHG) emissions associated with each of the marine fuels, from extraction to combustion. Secondary factors for consideration include air pollutants, fuel properties and performance, safety, storage, and feasibility for use on existing ships. The results are intended to support policy makers and industry considering alternative fuels in accordance with the International Maritime Organization's commitment to reduce the marine shipping industry's GHG emissions by 50% by 2050.

Real-time Vessel Monitoring (with Ocean Networks Canada)

Clear Seas has received the draft report and is reassessing its approach to the final version. This project has been relegated to a lower priority and will be readdressed in the coming months. This project examined the use of a 24/7 staffed Operations Centre to monitor real-time satellite and terrestrial AIS signals from commercial vessels with the objective of informing risk mitigation policy recommendations for improved vessel safety systems. The results of this real-time monitoring are being analyzed for potential marine safety implications.

Key Issues Pages (Microsites)

Two new key issues pages were developed and published in FY 2018/19: *Invasive Species & Marine Shipping* and *Air Pollution & Marine Shipping*. A third page on *LNG & Marine Shipping* was prepared in this fiscal year and launched in May 2019.

Cumulatively, the seven existing key issues pages represent a strong product for Clear Seas – one aimed at distilling topical and complex issues for visitors who include educators, students, policy makers, researchers and the public at large. We continue to

receive positive responses regarding these pages. While each of the subjects has been written about extensively by others, these sites offer a unique and well-researched aggregation of the facts in a balanced and dispassionate way. These pages aim to provide readers with the facts they need to make informed decisions about the issues.



OIL TANKERS



UNDERWATER NOISE



MARINE SHIPPING & YOU

WHO PAYS FOR AN OIL
SPILL

INVASIVE SPECIES



AIR POLLUTION



LNG

Due to the success of these sites, Clear Seas' goal is to produce a new key issue page every quarter. Previously published key issues pages are updated as needed to remain current with new developments, rules and regulations. The next key issue page to be published will be Responding to Oil Spills.

Indigenous Outreach

Clear Seas has been building the foundation of an indigenous outreach program since its inception. It has developed relations with several of British Columbia's Coastal First Nations. Of note over 2018/2019, the Heiltsuk Nation cited Clear Seas' *Emergency Towing Vessel Needs Assessment* report in its Canadian International Trade Tribunal challenge. Clear Seas also entered into discussions around a Data Sharing Agreement with the Council of the Haida Nation, following from Clear Seas' participation in a joint Council of the Haida Nation and Transport Canada workshop, Safe Distance Offshore, in February 2019.

We see opportunities for collaborating with First Nations in a number of areas including through the Marine Transportation Corridors Initiative for Canada's Pacific Region, particularly in the areas of sensitivity of coastal areas to oil spills, recommendations for vessel routing and other strategies to mitigate marine shipping risks. Clear Seas intends to expand its efforts to collaborate with First Nations and incorporate Traditional Indigenous Knowledge into its research efforts in the coming year.

Relevance and Influence

The organization is recognized for its impartiality and is invited to contribute to important public policy issues and leading conferences attended by industry experts and leaders.

As previously indicated, the Executive Director was invited to provide expert testimony based on Clear Seas' research to Parliamentary committees examining Bills C-86 and C-48. Additionally, the organization contributed perspective, information and advice to the development of policy through its participation in the BC Ministry of Environment's Technical Working Groups on Phase Two Enhancements to Spill Management during the summer of 2018.

Other highlights include:

- + Participating as a panel moderator Greentech (Jun 2018)
- + Presenting Vessel Drift and Response research at AMOP (Sep 2018)
- + Participating in a panel at Shared Waters Symposium in Bellingham, WA (Oct 2018)
- + Referencing of the ETV Needs Assessment by Heiltsuk Horizon in its CITT Challenge (Jan 2019)
- + Presenting Vessel Drift and Response research at Council Haida Nation Workshop: Safe Distance Offshore (Feb 2019)

As part of its research efforts, Clear Seas participated in a range of events including:

- + Oceans Protection Plan Regional Risk Assessment Methodology Collaborative Workshop (May 2018)
- + Public Engagement Tools and Strategies for Effective Information Sharing (May 2018)
- + Clean Pacific 2018 Conference (Jun 2018)
- + Association of Canadian Port Authorities Conference (Sep 2018)
- + Transport Canada Workshop on Maritime Autonomous Surface Ships (Sep 2018)
- + Our Waters: Maritime Commerce and Whales (Sep 2018)
- + Transport Canada Workshop on Proactive Vessel Management (Sep 2018)
- + Canadian Science Policy Conference (Nov 2018)
- + National Canadian Marine Advisory Council (Nov 2018)

While media coverage was not a prime focus of the past year's communications strategy, Clear Seas received significant coverage in traditional media around the 2018 public opinion survey of Canadians' perceptions of shipping as well as national coverage on other studies. Media also contacted Clear Seas for background information on marine shipping matters.

Staff were interviewed about Clear Seas' scrubbers research in *Trade Winds* magazine and the Executive Director participated in a live interview on the Lynda Steele show on Vancouver's CKNW radio. The organization was also cited in 22 news articles of which 8 were trade magazines and 14 were traditional print media.

Unfortunately, the annual Clear Seas conference again met with logistical challenges and a decision was made to defer it to the 2019/20 fiscal year. It is now being planned for the Fall of 2019 and is a key communications and engagement deliverable.

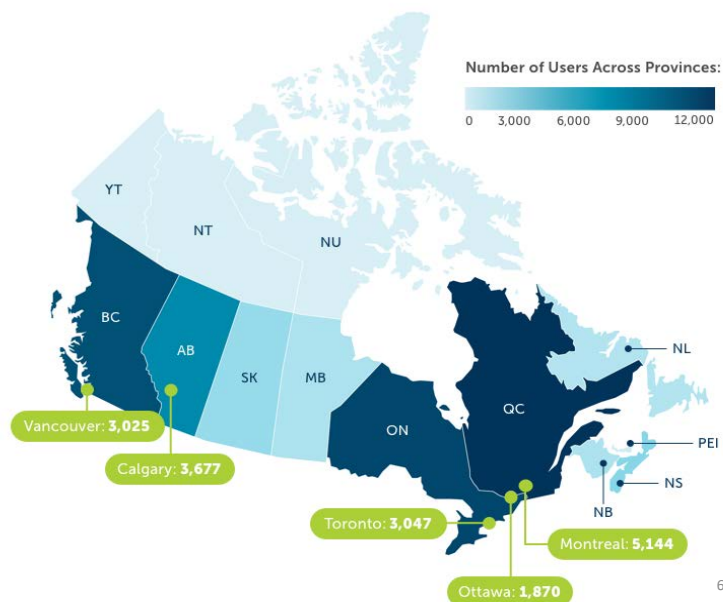
Online Presence

Website

In the past year, Clear Seas' website assumed an even greater role as a central publishing hub and generated greater awareness among our key audiences. The number of visitors to the site nearly doubled compared to the previous year with more than 60,500 new visitors in total, and the Clear Seas website reaches Canadians in both official languages.

Clear Seas' National Presence

In 2018, our website was visited by over 60,500 new users from across Canada.



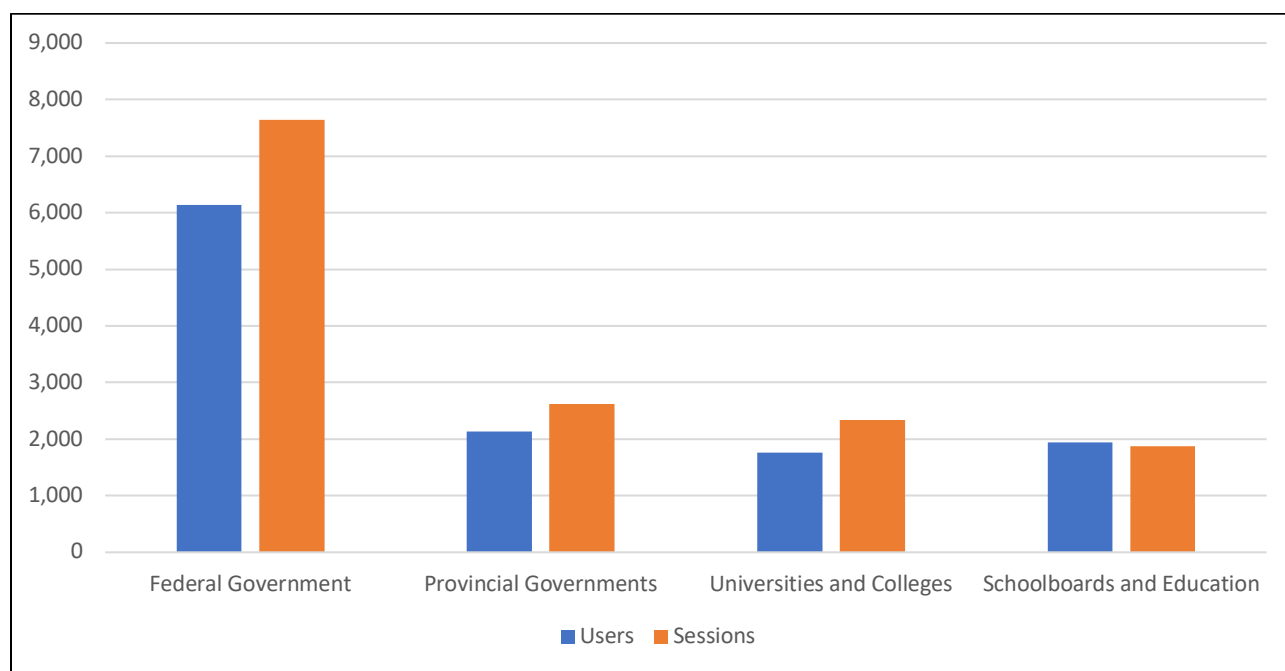
Overall, Clear Seas pursued dual engagement strategies, by communicating about its research products while also delivering communications efforts designed to enhance the dialogue with Canadians around sustainable marine shipping practices.

While the efforts of the communications program endeavoured to increase the knowledge of best practices and latest research, it has also presented a number of opportunities for increased dialogue around common public misperceptions such as the role of shipping in the day-to-day lives of Canadians or what pipeline approvals may mean for tanker traffic in Canadian waters.

The website provides in-depth, unbiased information and analysis on topical and often contentious issues such as air pollution and marine shipping, the role of double hulls in tanker safety, the Hazardous and Noxious Substances Convention, and how oil behaves in water. Many positive comments were received throughout the year from members of the public on the website's content and its ability to distill complex issues in a manner that a layperson could understand.

Website metrics based on the service providers of site users also show that Clear Seas is reaching policy makers, educators and students.

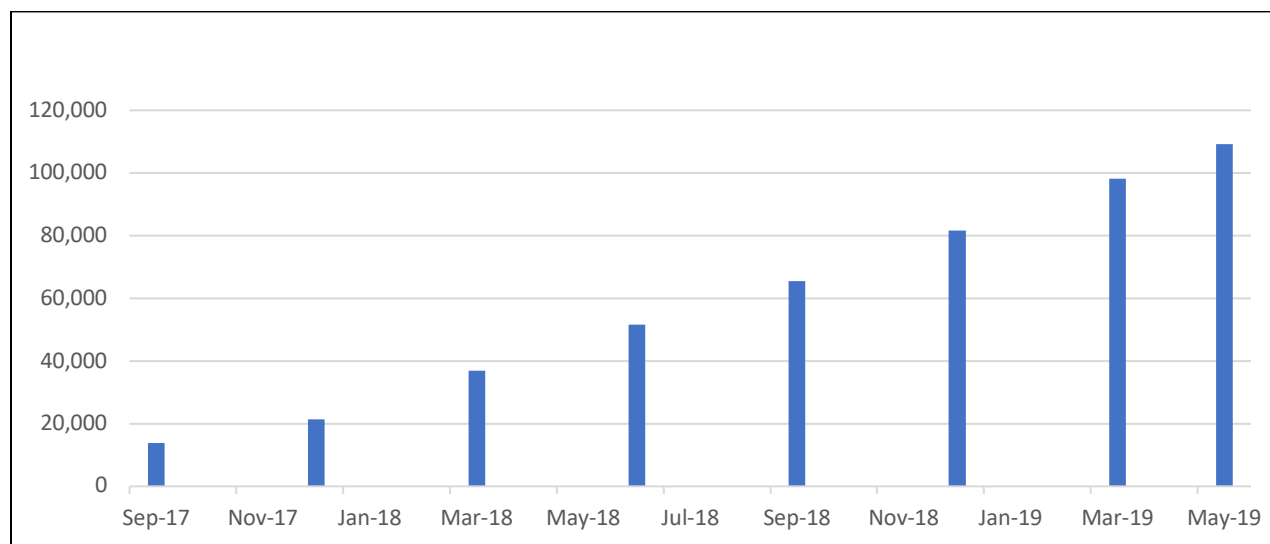
Key User Statistics (January-December 2018)



Behind the scenes, Clear Seas' digital assets undergo continual enhancements including Search Engine Optimization, Search Engine Marketing, and regular maintenance activities. Clear Seas' website remains one of the top choices for marine shipping searches through optimization of key words through Google Analytics. The reach and effectiveness of the website continues to expand due to the addition of new and relevant content.

Clear Seas now has two years of metrics related to the website's performance with a track record of significant quarter over quarter improvements. In the past fiscal year the number of users nearly doubled to over 60,500, from 35,000 in the previous fiscal year. Page views increased by nearly one-third from 65,000 to close to 99,000 page views. The website outperformed expectations and internally set benchmarks to comparable organizations. Average time spent on the site increased from 1 minute 08 seconds in 2017/18 to 1 minute 23 seconds in 2018/19.

Cumulative Users of Clear Seas Website



Email Marketing

In addition to announcements on new research studies or key issues pages, subscribers now receive a quarterly newsletter that includes announcements, work in progress and an events calendar. The open rate of 34% exceeds the industry standard of 20% for subscription-based e-newsletters.

Maintaining the accuracy of the distribution list and growing the subscriber base is a key part of the communications plan for the coming year.

#clearfacts Blog

The launch of Clear Seas' key issues pages highlighted the need for simple, concise explanations of complex topics. The "#clearfacts" blog hosts 23 articles, 7 of which were published in 2018/19. Topics are often selected based on the questions or misinformation that is found on social media to help improve the public's understanding of key issues. We also analyze search engine queries to determine Canadians' leading questions on marine matters. Topics receiving considerable interest are considered for future blog posts.

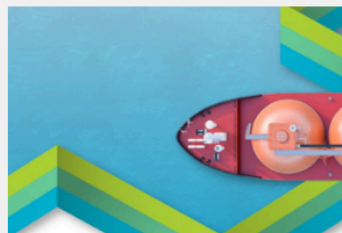


July 3, 2019

RESEARCH SPOTLIGHT: DR. TONY R. WALKER

"We rely on transporting goods by ship, but we don't need to maintain the status quo. We can't maintain the status quo; there is a better way." – Tony R. Walker

[Read more](#)

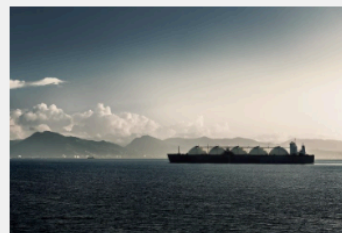


May 9, 2019

10 QUESTIONS ABOUT LNG & MARINE SHIPPING

Test your knowledge! What do you know about LNG and marine shipping?

[Read more](#)



February 28, 2019

WHAT IS THE HNS CONVENTION?

The 2010 Hazardous and Noxious Substances (HNS) Convention sets out a liability regime to compensate for damage caused by incidents involving HNS transported by sea.

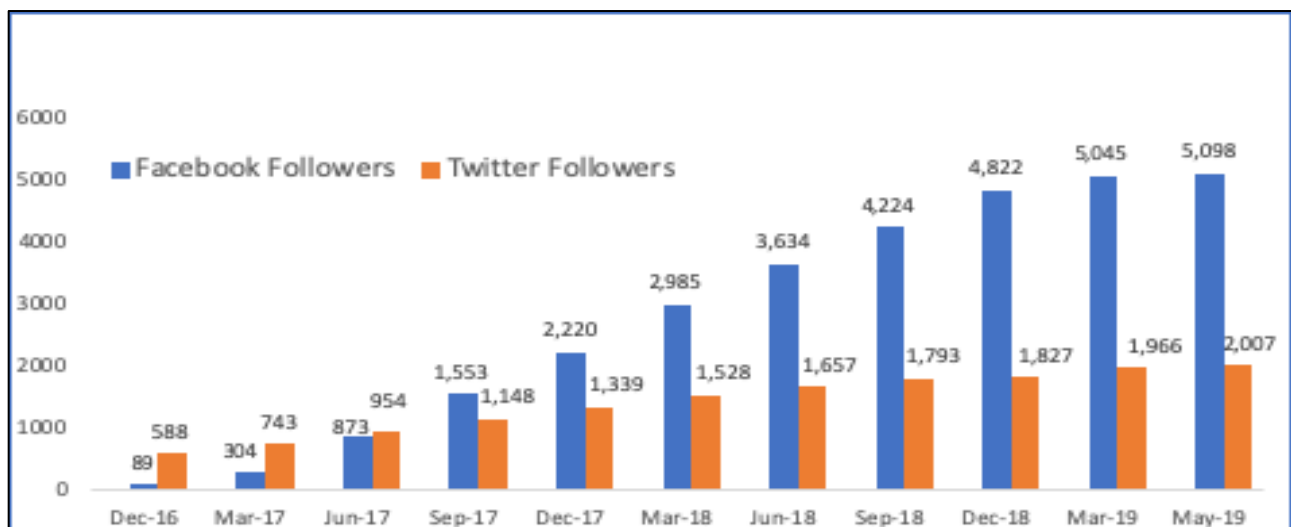
[Read more](#)

Social Media

Social media represents an area of influence for Clear Seas and allows for direct engagement with those who have questions or concerns about the sustainability of marine shipping in Canada. The majority of public conversations about marine shipping take place on social media, demonstrating its role as a highly effective platform for Clear Seas by facilitating direct engagements and by allowing Clear Seas to understand Canadians' questions and concerns. This understanding helps ensure communication efforts are aligned with Canadians' interests.

With a national mandate and a relatively small team, social media allows Clear Seas to maintain an active dialogue among stakeholders and the public. With a focus on issues of importance and organic reach through shares and likes, direct engagement of this nature is invaluable to the promotion of our research products and to provide trusted information about marine shipping in Canada.

Clear Seas' Growth on Social Media



Followers across most channels are growing at a steady rate – presenting the opportunity to increase our reach and communicate to thousands of Canadians who in turn share Clear Seas' content with their friends and followers.

Cumulatively, Twitter followers increased by 29%, Facebook by 69% and LinkedIn by 107% this past year.



1,966 Followers

↑ 29%



5,036 Followers

↑ 69%



300 Followers

↑ 107%

Social media also fulfilled another important function as an effective means of referring followers to the Clear Seas website. This past year, the number of sessions originating from social media culminated in the final quarter with just over 40% growth from the previous quarter – verifying the effectiveness of social to refer to other digital assets.

Overall, these metrics demonstrate the organization's ability to create original content and effectively drive traffic to its various channels, particularly its website. Growth is expected to continue as we refine our methodologies and deliver and refresh online content.

Conclusion

Clear Seas is making headway towards becoming the leading source of impartial information for all Canadians on marine shipping in Canada. The organization will continue its efforts to deliver professional, reliable and objective information to facilitate a better understanding of the risks, benefits, and best practices for safe and sustainable marine shipping.

Should you have any questions or concerns, please do not hesitate to contact me, or Peter Ellis, the Executive Director.

Bud Streeter
Chairperson
Board of Directors
July 31st, 2019