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# INTRODUCTION TO THE NATIONAL STRATEGY PROGRESS & IMPACT MEASUREMENT PROGRAM

The Canadian Ocean Literacy Coalition (COLC) is an alliance of organizations, networks, institutions, communities, and individuals working together to better understand and advance ocean literacy in Canada. COLC launched in September 2018 at the Oceans Inspiration Expo, as part of the G7 Ministerial Meetings in Halifax, Nova Scotia. Since inception, COLC has functioned as an independent national project office with an administrative home first at the Canadian Museum of Nature (2018-2021) and currently at Ocean Networks Canada at the University of Victoria.

Serving as a hub for collaboration across regions and sectors in Canada, COLC's initial project was to lead a Canada-wide research initiative to better understand Canadians' varying relationships with the ocean and to understand how ocean literacy is understood and practiced across the country.

In June 2020, COLC published the final regional and national reports of the Understanding Ocean Literacy in Canada study, establishing the first research baseline of ocean literacy in Canada. Land, Water, Ocean, Us: A Canadian Ocean Literacy Strategy and the accompanying *Implementation* Plan: **Pathways** Collaboration (collectively, the "National Strategy") are directly built on the findings of this study, and have been co-developed in the original of COLC's communityspirit established mandate. The Strategy to advance Ocean Literacy in Canada is an endorsed project of the UN Decade of Ocean Science for Sustainable Development.

In Fall 2021, COLC was awarded funding from Fisheries and Oceans Canada to advance work under the National Strategy. These efforts, in turn, would also serve to support Canada's

contribution to the UN Ocean Decade. This funding included a mandate to develop and launch an impact measurement program.

In 2022, COLC retained Entremission, a Montréal-based social enterprise that works with social impact organizations, to develop an impact measurement framework for the Strategy National and the projects implemented under it. Α preliminary framework was developed and launched in March 2022. Over the course of the year, Entremission collected impact measurement data and refined the framework. This report is the culmination of that effort.

A companion report, the **Key Initiatives Impact Report 2022**, provides a more detailed description of **14 initiatives** and their impact in 2022. Each of these initiatives were national in scope, multi-partner collaborations, and coordinated by COLC.

As COLC moves into 2023, Entremission will continue to collect impact measurement data and provide regular impact reports. These reports help COLC and members of the Canadian ocean literacy community understand the impact of recent projects and activities, become more effective, and scale initiatives that have potential to strengthen ocean literacy efforts in Canada and internationally.

This report is divided into three parts. Part One provides a description of the Impact Measurement Framework. Part Two provides a snapshot of impact results for 2022 and an analysis of the program's first year. Part Three provides some reflections and limitations of the framework, as well as a look ahead to 2023 and beyond.



# PART ONE: THE IMPACT MEASUREMENT FRAMEWORK

## **Impact Measurement**

**Measurement** is the process of identifying metrics that reflect observable changes and allow change to be documented. It includes the process of analyzing data and drawing conclusions or insights about the effect of the program or policy.

To this end, the Framework identifies which activities, outputs, and outcomes should be measured in order to generate insights that can help promote ocean literacy in Canada.

### **Purpose of Impact Measurement**

Impact Measurement has a number of purposes, including: to help determine whether or not a program achieved its intended outcomes; accountability; and, learning and innovation!

In the specific context of the National Strategy, the impact information may be used in the following ways:

- 1. To document and report progress on implementation of the National Strategy
- 2. To ensure transparency and accountability to partners, stakeholders, funders, and the public regarding commitments made under the National Strategy and work led by COLC
- 3. To ensure continual learning, improvement, and innovation amongst the project team
- 4. To document and make replicable activities and projects that achieve significant impact
- 5. To inform decisions to add, modify, and remove projects under each Action Stream
- 6. To inform decisions to add, modify, and remove Action Streams
- 7. To inform decisions to add, modify, and remove cross-cutting objectives under the National Strategy
- 8. To identify gaps and to help recruit additional partners and resources for projects that support the National Strategy
- 9. To document learnings that can be shared with the international ocean literacy community

The National Strategy Impact Measurement program is intended to objectively measure impact so that COLC and its partners can make informed decisions about how best to advance ocean literacy.

That said, the Impact Measurement program is intended to actively collect and share insights for the explicit purpose of maximizing the impact of the National Strategy. It will collect data that can be used by stakeholders to adapt their activities and projects while programs are still underway and, in some cases, evolving. For that reason, the act of measuring and sharing impact data will have an ongoing influence on National Strategy activities and results.



### The Framework

The National Strategy Impact Framework is a "nested" framework, reflecting the fact that each layer of the Strategy feeds into the next. Partner organizations implement Projects. Projects bring the Action Streams to life. The Action Streams achieve the National Strategy Goals. The Goals represent ocean literacy.

The National Strategy Goals (Ocean Knowledge, Ocean Values, Ocean Actions) are **lagging indicators**, meaning that we can only observe them after the National Strategy has generated its intended impact.

In order to achieve the goals as quickly and as efficiently as possible, we also need to track **leading indicators**. These indicators help measure progress and adjust activities while projects are still underway. Leading indicators of impact are derived from observable components of projects, initiatives, and partner activities.

#### Goals

Since the early 2000s, ocean literacy has widely been defined as "an understanding of how the ocean influences us and how we influence the ocean". More recently, and here in Canada, ocean literacy is described as our relationship with the ocean and the ways in which individuals, society, and the ocean interact. Ocean literacy research is increasingly identifying a growing number of dimensions? However, in the context of the National Strategy, three broad dimensions of ocean literacy frame the Strategy's goals. These goals are the aim of the Canadian Ocean Literacy Coalition's work – empowering Canadians to better understand, value, and care for the ocean. All initiatives implemented under the National Strategy aim to achieve these goals.

**Ocean Knowledge** refers to the multiple understandings of how the ocean influences us and how our past, present, and future relationships impact the ocean. "Knowledge" includes natural and social science, Indigenous knowledge systems, and local expertise.

**Ocean Values** refers to a moral responsibility to the ocean (e.g., ethic of care) that grows out of our diverse yet interconnected ocean relationships.

**Ocean Actions** means the ability to change behaviours, eliminate barriers, and increase participation and engagement in ocean-related decisions, policies, opportunities, and activities.



<sup>2</sup>McKinley, E, Burdon, D. & R.J. Shellock (2023). The evolution of ocean literacy: A new framework for the United Nations Ocean Decade and beyond. Marine Pollution Bulletin, 183 (114467). Retrieved from: https://www.sciencedirect.com/science/article/pii/S0025326X22011493?via=ihub



#### **Action Streams**

The National Strategy identified nine specific "Action Streams" to address national priorities and serve as a holistic guide and barometer in achieving the vision of the Strategy. All projects and initiatives implemented under the National Strategy must fall into one or more of these nine action streams:

- 1. Develop the Ocean Literacy Map & Community Platform
- 2. Establish a Community Grants Program
- 3. Strengthen Ocean Education
- 4. Grow Ocean Week Canada
- 5. Enhance Ocean Knowledge Sharing through Media, Storytelling & the Arts
- 6. Advance Youth Engagement in Ocean Conservation & the Blue Economy
- 7. Improve Access & Diversity
- 8. Improve Government Collaboration
- 9. Connect Ocean & Human Health

In 2022, it became apparent that a major component of COLC's work was not captured under the original list of Action Streams. A tenth stream was added in order to address this gap:

10. Contribute to Ocean Literacy Leadership & and Advocacy



### **Projects and Initiatives**

Projects and initiatives are implemented under an Action Stream in order to fulfill its purpose. The original impact measurement framework called for impact measurement of both projects and Action Streams, however that proved overly complicated in practice and the initial impact data was not very actionable.

In practice, some Action Streams are supported by multiple projects (e.g., Action Stream #3, Strengthen Ocean Education) and some are supported by one (e.g., Action Stream #4, Grow Ocean Week Canada). Some Action Streams function independently (e.g., Action Streams #3 and #4) and others intersect with multiple Streams and projects (e.g., Action Stream #5, Enhance Ocean Knowledge through ... Storytelling & the Arts). Some Action Streams have a clear end point (e.g., Action Stream #1, Develop the Digital Canadian Ocean Literacy Map & Community Platform), while others could continue in perpetuity (e.g., Action Stream #5, Enhance Ocean Knowledge through... Storytelling & the Arts).

For that reason, impact measurement activities focused more closely on the multiple projects and initiatives than on the Action Streams. With the help of annual Key Initiatives Impact reports, it should be possible over time to understand which specific actions have an impact on the Strategy Goals, why and how those impacts occur, and how those efforts could be replicated or scaled.



#### **Metrics**

Impact is measured using Metrics. A metric is any value that can reasonably indicate that a result has occurred and the extent or significance of the occurrence; it describes a result. Metrics can be quantitative (e.g., the number of people who attend an event) or qualitative (e.g., a story about one person's experience at that event).

The impact measurement program used a consistent set of 26 metrics (see Appendix A) that could apply to any project, initiative, or Action Stream. The number of people who participated, for example, is a common metric.

Within key initiatives, specific metrics were also identified to document the impact of important aspects of the initiative. Specific metrics are selected for the plan based on their ability to provide insight into progress, impact, and significance. For example, the number of people who used each of the Toolkits is a specific subsection of the people who visited the Ocean Week Canada website. The number of people who participated in an event in a particular region is another specific metric. The Ocean Week Canada project had the most specific metrics (approximately 300).

Metrics Families are a grouping of similar metrics that allow the results of different activities to be compared or aggregated. For example, the number of people who attend an event and the number of people who downloaded a toolkit are part of the same family of 'engagement' metrics. By clustering specific metrics into families, we can get a clearer picture of the overall impact of the Strategy. Metrics families were defined in March 2022 and refined in Fall 2022 in order to tie directly to COLC's strategic priorities. The primary metric families are as follows:

**Engagement**. The number and degree to which people are participating in each project and activity. For example, engagement might include the number of people who attended an event.

**Resources**. A general term to describe deliverables, reports, toolkits, funding, and other products or services that increase ocean literacy community's capacity to promote Ocean Knowledge, Ocean Values, and/or Ocean Actions.

**Perceptions**. Subjective feedback and survey responses that indicate one or both of these things: whether Ocean Knowledge, Ocean Values, and/or Ocean Actions are increasing or decreasing and/or whether the ocean literacy community's capacity to promote Ocean Knowledge, Ocean Values, and/or Ocean Actions is increasing or decreasing. Perception metrics may be collected at the activity, project, or national level. They may be collected from the ocean literacy community or from the general public.





A set of secondary cross-cutting metric families provides insight into the nature of the primary metrics in order to understand how well the data represent the values and intent of the National Strategy. The National Strategy explicitly states the importance of using narrative techniques to engage people in ocean literacy efforts. It also highlights the importance of representation in the leadership of, production of, and engagement in ocean literacy activities. The cross-cutting metrics families are as follows:

**Stories**. Written, visual, audio, or video story content that passes ocean knowledge, values, or inspiration from one person (or group) to another. This metric does not stand on its own; it must reference specific resource results.

**Representation**. The presence of youth (ages 16-28), Canadian geographic regions, languages, Indigenous communities, cultural groups, and the freshwater community in activities and resources. This metric does not stand on its own; it references other engagement or resources results.

The Metrics Table in Appendix A illustrates the list of Metrics Families and specific Metrics.

#### **Partners**

Partner organizations include funders, coalition members, content contributors, project partners, and other members of the ocean literacy community who are committed to supporting the National Strategy. They design, lead, or contribute to projects implemented under the various Action Streams. They may also contribute impact data to the measurement program, review impact reports, and contribute to the development of the next phase of the National Strategy in 2024.

Without partners, projects cannot be implemented. The importance of the ocean literacy community to the collective work being implemented under the National Strategy cannot be overstated. Tracking partner involvement is thus considered a crucial leading indicator in the impact measurement framework.

With 2022 marking the first full year of National Strategy implementation efforts, the impact measurement program focused on applying the set of 26 metrics to the 14 multi-partner, national initiatives coordinated by COLC. This provided an opportunity to develop and test the impact measurement framework, impact measurement instrumentation, and the reporting methodology.

Moving ahead, future progress reports will incorporate data sources from partners who opt in, using the same set of metrics to ensure an objective analysis. By integrating additional partner data sources each year and revising the metrics families as necessary, a more complete understanding of the efficacy and impacts of ocean literacy efforts in Canada will emerge. The collective act of measuring and sharing impact data will have an ongoing influence on National Strategy activities and results will inform how the design and delivery of programs, projects, activities, and events evolve and scale throughout the UN Ocean Decade.

COLC has established a target of integrating 5 partners into the impact measurement process in 2023, with additional partners added throughout the Ocean Decade.



Contact Diz Glithero to become an impact measurement partner

diz@colcoalition.ca



## **PART TWO: THE 2022 IMPACT REPORT**

## **Impact Statement**

In its first year of National Strategy Implementation, the Canadian Ocean Literacy Coalition stewarded \$2.5-million in funding for **14 ocean literacy initiatives** – all national in scope and multi-partner collaborations.

Between April 2022 and March 2023, these key initiatives produced 88 new Ocean Literacy resources that directly **engaged over 1.4 million people** in Canada in educational and participatory experiences. People from all watershed regions of the country took part: Pacific, Inuit Nunangat, Atlantic, St. Lawrence, and Inland Canada.

Over **300 events** were held with a total reach of over **5.2 million people.** Events and activities were almost entirely free, youth or family-friendly, and offered in English or French with Indigenous languages.

All sectors — including NGO, government, academic, arts, and business — were involved in **394 partnerships** that brought these 14 collaborative ocean literacy initiatives to life.

While inspiring, these numbers do not fully capture the breadth and impact of all ocean literacy initiatives that took place in Canada in 2022. The report captures impact information for some of the projects underway, painting an important but incomplete picture of ocean literacy in this country. The data offer a hint at the potential long-term influences of so many different ocean literacy activities and partnerships unfolding simultaneously, but they don't truly capture the power of individual experiences and stories.

The main lesson from 2022 is that there is a growing appetite for ocean literacy programming and research, and potential for Canadian organizations to play a leadership role in the field.

When Parks Canada released its National Marine Conservation Areas Policy at IMPAC5, for example, it became the first federal policy in Canada to include ocean literacy.

The real impact of work done in 2022 can't be understood by looking backwards. Whether on the world stage or the local pier, the 2022 ocean literacy initiatives described in this report and in the Key Initiatives Impact Report 2022 are all part of a growing wave of momentum that will flow through the UN Ocean Decade and beyond.

## National Strategy Impact Summary: 2022<sup>3</sup>















Ocean Literacy Community Grants



ECOP travel grants

<sup>&</sup>lt;sup>3</sup> Data in this snapshot reflects the period April 1, 2022 – March 28, 2023 unless otherwise noted in the Key Initiatives Impact report. Ocean Week Canada 2022 data reflects the period April 1, 2022 - December 31, 2022.



## **National Strategy Implementation Status**

### **Action Streams**

#### Status:

Action Stream:	Underway Exceeding Expectations
Develop the digital Canadian Ocean Literacy map & community platform	•
Establish the Canadian Ocean Literacy Community Microgrant Program	
3 Strengthen ocean education	
4 Grow Ocean Week Canada	
Enhance Ocean knowledge sharing through media, communication, storytelling & the arts	
6 Amplify and advance youth engagement in ocean conservation & sustainable blue economy opportunities	
Evaluate & improve the current state of access & diversity within Canada's blue spaces and ocean-related sectors	
Improve government integration of water-ocean- climate literacy in policy & public engagement	
Build ocean & human health connections	
NEW Contribute to ocean literacy leadership & advocacy	

As of March 2023, there are active projects occurring under each of the ten Action Streams. Some Action Streams have dedicated initiatives (e.g., Ocean Week Canada), while others are being implemented through cross-cutting activities that shape multiple initiatives (e.g., Improving the Current State of Access and Diversity).

### **Strategic Priorities and Key Initiatives**

Active projects and initiatives have also been clustered according to COLC's strategic priorities:

- 1. Outreach & Education
- 2. Research & Impact
- 3. Leadership & Advocacy

These priorities help to clarify the purpose of each initiative and offer a simple description of COLC's work to the general public.

For public communications purposes, the strategic priorities are a more helpful description of activities and progress than the Action Streams and feature more prominently on the website, in annual reports, and in other communications materials.



### **Strategic Priorities and Key Initiatives**

#### Outreach & Education

- 1. Ocean Week Canada & Ocean Festival 2022
- 2. Ocean Literacy Community Grants Programs
- 3. Blue Schools Canada
- 4. Ocean, Freshwater, and Us: Giant Floor Map & AR app
- 5. ECOP Canada

#### Research & Impact

- 1. National Strategy Progress & Impact Measurement
- 2. The Global Ocean Literacy Research Community
- 3. Public Perceptions Research Review
- 4. Stories for Stream2Sea

#### Leadership & Advocacy

- 1. Ocean Literacy With All
- 2. Ocean Decade Community of Champions
- 3. All-Atlantic Ocean Research & Innovation Alliance
- 4. National and International Presentations
- 5. Ocean Literacy Dialogues @ IMPAC5

### **Representation in Key Initiatives**

Representation metrics indicate whether the Key Initiatives are being implemented in ways that fit with the National Strategy's core values and intentions. In 2022, 6 representation metrics were tracked alongside impact measures for 7 Key Initiatives shaped by COLC and created by / for communities in Canada.<sup>4</sup>

Geography	Language	
Results:     All Canadian watershed regions represented in 1 or more Key Initiatives.     The Key Initiatives were open to participants in every region of Canada.     Participation from the Inuit Nunangat (Arctic) watershed region was lower for events and activities.	<ul> <li>Goal: <ul> <li>English and French language parity</li> <li>Indigenous language inclusion where possible and appropriate</li> </ul> </li> <li>Results: <ul> <li>7 key initiatives delivered in both French and English</li> <li>3 key initiatives with prominent Indigenous language resources (Ocean Week Canada Toolkits and Story Collection; Ocean Literacy Grants; Giant Floor Map).</li> </ul> </li> </ul>	
Indigenous leadership and inclusion	Youth participation	
Goal:	<ul> <li>Goal:</li> <li>Ensure resources and events are created by / for youth</li> <li>Results:</li> <li>The 7 Key Initiatives were created with youth involved and serving youth engagement needs</li> </ul>	
Freshwater inclusion	Economic sector inclusion	
Goal:	Goal:  Create resources and events with input from all sectors  Ensure resources and events engage all sectors  Results:  100% of sectors in engaged in the creation of various resources	

and activities

100% of sectors participating in various events

<sup>&</sup>lt;sup>4</sup> Ocean Week Canada & Ocean Festival 2022, Ocean Literacy Community Microgrants, Blue Schools, The Giant Floor Map, ECOP Canada, Stories for Stream2Sea, Ocean Literacy Dialogues @ IMPAC5



# PART THREE: FRAMEWORK REFLECTIONS, LIMITATIONS, AND A LOOK AHEAD TO 2023

### **Reflections on the Framework**

The Framework evolved over the course of 2022 as actual impacts were observed and insight into the practicality, reliability, and usefulness of various data points was collected.

The concept of the nested framework and the metrics families is sound. The specific names of metric families were modified in Fall 2022 to dovetail with COLC's strategic priorities; the current names and definitions can serve the impact measurement program from this year forward.

The framework anticipated that partner organizations would co-design and actively contribute to projects, which proved to be both true and highly significant. The number and nature of organizations involved across the various Key Initiatives create momentum around the work; one organization acting alone could not execute these initiatives with the same impact, expertise, and representativeness. It is likely that the number and nature of organizations (i.e., representativeness) will be a reliable leading indicator of impact. This assumption can be tested in the coming years.

In practice, projects and initiatives prove to be more relevant to impact measurement than the Action Streams themselves. Action Streams remain a helpful method for understanding how the goals of the National Strategy might be accomplished, but they offer less practical value to understanding what is happening under the National Strategy or the impact of those efforts. For that reason, Key Initiatives took on increased prominence in the impact reports.

Four of the Action Streams are best implemented in conjunction with initiatives in other Action Streams:

- Enhance Ocean Knowledge Sharing through Media, Storytelling & the Arts (Action Stream #5)
- Advance Youth Engagement in Ocean Conservation & the Blue Economy (Action Stream #6)
- Improve Access & Diversity (Action Stream #7)
- Connect Ocean & Human Health (Action Stream #9)

Storytelling and the arts proved to be important components of initiatives such as Ocean Week Canada. Similarly, youth engagement, access and diversity, and connections between ocean and human health proved to be relevant practices and themes that were intentionally promoted through initiatives such as Ocean Week Canada programming, resource creation, and the Ocean Literacy Dialogues events. The metrics were updated to reflect and track the relationship between these Action Streams and other activities.

Action Stream #8 is an outlier. The complete wording of this Stream is: "Improve government integration of water-ocean-climate literacy in policy and public engagement." This is the one Action Stream where the benchmark for success (i.e., government actions) is beyond the direct control of COLC or the project partners. It is unclear what success would look like or how to measure impact in a way that is meaningful. A recommendation for addressing this issue is included in the 'Looking Ahead' section below.

The goals of the National Strategy reflect three dimensions of ocean literacy: Ocean Knowledge, Ocean Values, and Ocean Actions. In the first year of impact measurement, access to perceptions and before/after data was limited to the post-Ocean Week Canada event host survey and an analysis of public perceptions surveys from 2019-2022. In 2023, more data sources can be added to the impact measurement program, primarily with the addition of more follow-up surveys.



## **Limitations of Impact Measurement**

There are limits to what can be observed or understood through traditional, linear impact measurement. The following factors and limitations have been considered in the development of the Impact Measurement Framework:

**Complexity** – Ocean literacy is the product of a complex web of research, education, experience, storytelling, celebration, resources, knowledge, perceptions, values, actions, behaviours, and attitudes. It requires participation from all sectors in all geographic regions of the country. The current dimensions of ocean literacy – knowledge, values, actions – are also interconnected. They reinforce each other and cannot be looked at or measured as purely independent outcomes.

**External Variables** – Ocean literacy is affected both positively and negatively by global trends, knowledge, beliefs, and actions.

**Timeframe** – There is a significant gap between activities, measurable changes in ocean literacy, and a measurable impact on ocean health. In many cases, this span of time may be several years or even generations. This gap in time makes it difficult to verify perfect cause-and-effect relationships between projects, outputs, and impact.

**Local vs. Population Level Impact** – Growth in ocean literacy may not be linear. Ocean literacy is the result of numerous local or boundaried initiatives that have a population-level effect only through their combined, collective impact.

Scientific Uncertainty – The National Strategy feeds into a global effort to safeguard the world's ocean in the face of historical and ongoing threats to ocean health. Because global ocean health is difficult to measure and is continuously shifting, we cannot predict with certainty what degree of knowledge or action is "sufficient" to generate a global impact. In the face of scientific uncertainty, we cannot know what actions are "enough" in advance. When we talk about measuring progress on the National Strategy, we do so knowing that the finish line we seek is constantly shifting.

## Looking ahead: 2023 and beyond

With the framework established and tested, the impact measurement project can continue to capture and report impact in 2023 and beyond.

#### 2023

Unless major changes are made to the framework, future National Strategy Impact reports could provide a shorter summary of the impact measurement framework. Future reports can focus more heavily on the impact results and stories that emerge from the work being done. The Key Initiatives Impact Report prepared in 2022 to accompany this document provides a good foundation for future narrative reports. These reports can more effectively communicate what work is underway and provide mini case studies to inform other ocean literacy practitioners and researchers in Canada and internationally.

Because 2022 served as the baseline year, the next report in 2023 will be able to report on cumulative impact and changes. Over the course of the next three years, trends will start to emerge from the data. With more data over longer periods of time, there will also be opportunities to compare the relative impact of different initiatives.



For the purposes of next year's impact measurement program, Action Stream #8 should be re-stated to: "Engage government to improve integration of water-ocean-climate literacy in policy and public engagement." This rephrasing creates an objective target for initiatives led by COLC and its partners and a reliable way to measure progress. In 2023, metrics relating to this re-stated Action Stream should be added to the metrics list under the Engagement family.

An informal scan of 2022 data suggests that this revised approach will yield interesting results; there are numerous examples of initiatives and actions that engage government and have the potential for significant impact in the coming years. Examples include COLC's contributions to the Ocean Decade Community of Champions and the recent commitment from Fisheries and Oceans Canada to provide over \$5-million in funding for ocean literacy initiatives over the next three years.

The Key Initiatives Impact Report 2022 contains a section called "Ripples and Currents" that describes how certain activities and initiatives lead to more action and opportunity. This is one of the most intriguing and exciting revelations from the 2022 data; it will be interesting to see if "ripple" and "currents" project impact can be tracked and, if so, whether the data serve as reliable leading indicators of progress towards the National Strategy goals.

### Beyond 2023

This is an important and unique time for ocean literacy initiatives. The UN Ocean Decade (2021-2030) is a global effort to promote ocean science and the 2030 Sustainable Development Goals (UNSDG). This means that the National Strategy is being implemented in the context of significant national and international attention to ocean issues. The more we can document, learn, and adapt during this time, the more likely we will be to achieve our ocean literacy and conservation goals.

The other promising area of development is the overlap between impact measurement work and public ocean perceptions research. Opportunities to collect public perceptions data can augment the impact measurement work. In particular, this type of data helps us to understand whether projects are having an impact on the general population and how to tailor messages and programming to meet public needs.

As the layers of impact information grow every year, it's important to remember how the people and programs behind the data are also growing. A twelve-year old participating in a Giant Floor Map activity in 2022 will be choosing a path of study or career by 2028. The Early Career Professionals (ECOPs) today will be the program managers and grant funders of 2030.

The impact measurement program isn't just tracking how many people participate each year or how that engagement changes. It will also reflect how individuals go on their own ocean literacy and leadership journeys over the course of the Ocean Decade. One person has the potential to pass on ocean knowledge and values to thousands of others and to inspire many to action. The various initiates have the potential to attract, nurture, and inspire a new generation of ocean educators and ocean sector leaders who will have their own impact on the world, long after this project concludes. It is an honour to anticipate and nurture their journeys.



## **ACKNOWLEDGEMENTS**

Entremission's impact measurement work was commissioned by the Canadian Ocean Literacy Coalition with funding from Oceans Management Contribution Grant Program.

The report was authored by Entremission for review and editing by the Canadian Ocean Literacy Coalition. Data are collected from a variety of sources, including internal documentation from COLC and the staff at partner organizations. More details about the data, data analysis, and methodology can be shared upon request: info@entremission.com.

Thank you to the many partner organizations and members of the Canadian Ocean Literacy community who led, contributed to, or amplified the initiatives described in these reports. A complete list of all the Key Initiatives partner and contributing organizations can be found in Appendix B.



# **APPENDIX A: METRICS**

Primary Metric Family	Cross-Cutting Metric Family	Metric	Specific Output (E.G.)
Engagement		# of backlinks to [site/ page]	Website
Engagement	Representation	# of [website page] views	Website
Engagement	Representation	# of subscribers to [list]	Mailing List
Engagement		# of press release views	Press Release
Engagement	Representation & Stories	# of media stories	Press Release
Engagement		# of media contacted	Press Release
Engagement		# of people registered	Event
Engagement Engagement	Representation Representation & Stories	# of people who attended/ participated # of events	Event Event
Resources	Representation & Stories	# of items published [article, press release, toolkit, etc.]	Publication, Content, or other Resource
Resources	Representation & Stories	# of speeches and presentations made	Advocacy
Resources	Representation	Amount of funding secured, distributed	Resources
Engagement		Relative popularity of similar activities [posts, resources]	Publication, Content, or other Resource
Engagement		# of people reached [by X press release, social post, etc.]	N/A
Engagement	Representation	# of partners contributed to [activity]	Event, Publication, Content, o other Resource
Engagement	Representation	% of partners returning, maintaining support	Partnerships
Engagement	Representation	# of requests / uses of COLC, OWC logos	Partnerships
Perceptions	Representation	Perceptions of [event, resource] reported by participants or stakeholders	N/A
Perceptions	Representation	Feedback, survey results on perceptions of oceans and ocean literacy commitment	N/A
Resources	Stories	# of resources with narrative techniques	Publication, Content, or other Resource
Engagement, Resources, Perceptions	Representation	Geographic representation	N/A
Engagement, Resources, Perceptions	Representation	Languages represented (French, English, Indigenous, Other)	N/A
Engagement, Resources, Perceptions	Representation	Indigenous voices, perspectives, leadership	N/A
Engagement, Resources, Perceptions	Representation	Youth (ages 16-28)	N/A
Engagement, Resources, Perceptions	Representation	Freshwater communities, perspectives	N/A
Engagement, Resources, Perceptions	Representation	Sector(s) represented (media; community; health; NGO & Foundations; education; arts & culture; government; research; youth; industry)	N/A
Engagement, Resources, Perceptions	Representation	Audience. Sector(s) targeted (media; community; health; NGO & Foundations; education; arts & culture; government; research; youth; industry)	N/A
N/A	N/A	Difference in above metrics compared to similar items, previous years	N/A



# APPENDIX B: KEY INITIATIVES PROJECT PARTNERS

The Initiatives and events described in this report were made possible by participation from the following organizations and individuals:

- Association of Science Teachers
- Earth Rangers
- Envision Saint John
- x<sup>w</sup>məθk<sup>w</sup>əýəm (Musqueam Nation)
- A Greener Future
- AA Ocean Research & Innovation Alliance
- AAEE
- Acqua Mater
- All-Atlantic Blue Schools Network
- ApneaCity
- Aquaculture Association of Canada (AAC)
- ArcticNet
- Àros na Mara
- Atlantic Science Enterprise Centre (ASEC) / Le Centre d'entreprise des sciences de l'Atlantique (CESA)
- Back to the Sea
- Bamfield Marine Sciences Centre
- Bayside Village
- BC Marine Trails
- Beaty Biodiversity Museum
- Benjamin Von Wong
- Billy Bishop Toronto City Airport
- Blowing Bubbles Blue Futures Pathways SOI Foundation
- Blue Jellyfish SUP Adventures
- Blue Mar 4 Change
- Bodhi Biggs
- Canada Media Fund
- Canada's Ocean Supercluster
- Canadian Commission for UNESCO (CCUNESCO) / La Commission canadienne pour l'UNESCO (CCUNESCO)
- Canadian Film or Video Production Tax Credit
- Canadian Geographic Education
- Canadian Meteorological and Oceanographic Society (CMOS)
- Canadian Museum of Nature / Musée canadien de la nature
- Canadian Network for Environmental Education and Communication (EECOM)
- Canadian Network for Ocean Education (CaNOE)

- Canadian Ocean Literacy Coalition (COLC)
- Canadian Parks and Wilderness Society (CPAWS)
- Canadian Parks and Wilderness Society-New Brunswick
- Canadian Parks and Wilderness Society-NS
- Canadian Water Summit (now Water Canada)
- Canadian Women in Ocean Industries Leadership (CWOIL) CanGeo Education
- Cardiff University
- Cascadia Seaweed
- CBC / Radio-Canada
- CC-UNESCO Canadian Schools Network
- Central Alberta Teachers' Convention Association (CATCA)
- Children's Water Festival (Upper Thames River Conservation Authority)
- Christine Fitzgerald
- · City of Richmond
- · City of Vancouver
- Classrooms to Communities Network
- Clean Foundation
- COAST
- Commission for Environmental Cooperation (CEC)
- Communauto
- Conservation Corps of Newfoundland and Labrador
- Corina Brdar (M.Sc.)
- COVE Start Up Yard Daily Hive
- Dalhousie University Marine Affairs Program
- Digital Nova Scotia
- Discovery Centre
- Discovery Passage Aquarium
- Diversity of Nature
- Dominique Normand
- Douglas Park Community Centre
- DP World
- Eagle Wing Tours
- Early Career Ocean Professionals Canada (ECOP Canada)
- Earth Science for Society (ESfS)



- École élémentaire La Mosaïque a Canadian Commission UNESCO Associated Schools Program Network (ASP Network)
- École en Réseau (ÉER)
- Ecology Action Centre
- Ecology North
- EcoMaris
- EMSEA
- Entremission
- Environment and Food Foundation
- Environmental Funders Canada (formerly CEGN)
- Environmental Services Association of Alberta's (ESAA) Remediation Technologies (RemTech) Symposium East
- Esri Canada
- Exploramer
- Exploring by the Seat of Your Pants
- Faculty of Environmental & Urban Change at York University
- False Creek Friends Society
- Festival TransAmériques (FTA)
- Fifth International Marine Protected Areas Congress (IMPAC5)
- First Capital
- First Mile Technologies
- Fisheries and Oceans Canada (DFO) / Pêches et Océans Canada (MPO)
- French Consulate in Vancouver
- French National Committee of Association of Polar Early Career Scientists (APECS-France)
- Friends of McNabs Island
- Gaia Project
- Geneviève Dupéré
- Georgia Strait Alliance
- Gibsons Building Supplies
- Girl Guides of Canada
- Global Encounters
- Government of Canada / Gouvernement du Canada
- Government of Northwest Territories / Gouvernement des Territoires du Nord-Ouest
- Government of Ontario Gouvernement de l'Ontario
- Government of Quebec / Gouvernement du Québec
- Great Lakes Ecoregion Network
- Great River Rapport
- Great West Life Reality Advisors (GWLRA)
- Greater Victoria Harbour Authority

- Green Coast Media
- Green Marine
- GreenLearning
- Guayakí Yerba Mate
- Gulf Islands National Park Reserve
- Gulf of Georgia Cannery Society
- Hakai Institute / l'Institut Hakai
- Havergal College
- Heiltsuk Tribal Council
- Helly Hansen
- Hillside Centre
- Hines
- HitPlay Productions
- Indiecan Entertainment
- Indigenous Leadership Initiative
- Indigenous Tourism Ontario (ITO)
- Ingenium
- INREST
- Institute for the Oceans and Fisheries
- Int'l Pacific marine Educators Network
- Intergovernmental Oceanographic Commission of UNESCO
- (IOC-UNESCO)
- International Council for the Exploration of the Sea (ICES)
- International Marine Protection Areas Congress (IMPAC5)
- International Research Conference
- JASCO Applied Sciences
- KOVE Ocean Foods
- L'Université du Québec à Rimouski (UQAR) /
   L'Université du Québec à Rimouski (UQAR)
- L'île du savoir
- L'Institut France-Québec pour la coopération scientifique en appui au secteur maritime (IFOM)
- L'Odyssée des Sciences (CRSNG)
- LaBase
- Lake Surfistas
- Live It Earth
- LOJIO
- M-Expertise Marine
- Manitoba Museum
- Maple 3
- MAPP\_MTL Marie France L'Ecuyer
- Marine Animal Response Society Marine Education and Research Society
- Marine Environmental Observation,
   Prediction and Response Network (MEOPAR)
   Marine Museum of the Great Lakes
- Maritime Aboriginal People's Council



- Maritime Heritage Centre
- Maritime Museum of British Columbia
- Maritime Museum of the Atlantic
- MarSocSci Network
- Mayne Island Conservancy
- McGill University / L'Université McGill
- Menkes Developments Ltd.
- Merinov
- Mining Justice Action Committee
- Mitacs
- Music by the Sea Society
- National marine Educators Assoc
- National Research Council of Canada
- Newfoundland Aquaculture Industry Association (NAIA)
- NGO-UNESCO Liaison Committee
- Nicholas Sonntag Marine Education Centre
- Nieuport Aviation
- North Pacific Marine Science Organization (PICES)
- North York Central Library (NYCL)
- Oak Bay Beach Hotel
- Ocean 98.5
- Ocean Conservation Trust
- Ocean Frontier Institute
- Ocean Literacy Italia
- Ocean Literacy With All
- Ocean Minded
- Ocean Networks Canada (ONC)
- Ocean School (National Film Board of Canada and Dalhousie University)
- Ocean Start Up Project
- Ocean Technology Council of Nova Scotia (OTCNS)
- Ocean Uprise & Sea Dragon Studios
- Ocean Wise
- · Ocean Wise's Ocean Bridge Program
- Oceans Initiative
- Oceans North
- Off the Fence
- OL Network
- One Yoga
- Ontario Association of Geographic and Environmental Education (OAGEE)
- Ontario Creates
- Ontario Film and Television Tax Credit
- Organisation Bleue
- Pacific Rim Whale Festival (PRWF)
- Paddlefest
- PAL Airlines
- Parks Canada / Parcs Canada

- Parlons Sciences
- Politica do Mar
- Port of Sept-Îles
- Port Saint John
- Porter
- Project Aware Dive Against Debris
- Project SculptShore
- Province of Nova Scotia
- Québec-Océan, l'Université Laval
- · Queen's Quay Terminal
- Raina the Mermaid
- RAVEN
- Redpath
- Relat
- Replay Storytelling
- Réseaux Québec Maritime (RQM)
- Ripley's Aquarium of Canada
- River First YGK River Institute
- Robi Smith
- Rogers Documentary Fund
- Royal Bank of Canada / La Banque Royale du Canada
- Royal BC Museum
- Royal Canadian Geographical Society
- Royal Ontario Museum (ROM) / Musée royal de l'Ontario (ROM)
- Sacred Journey Exhibition Saskatchewan Science Centre
- Sault Ste. Marie Innovation Centre
- Science World
- Scotian Shores
- Scout Canning
- Sea Around Us initiative
- Sea Smart
- SeaBlue
- Seaguaria Ocean Education
- SeeQuest Development
- SEGO Initiative
- səlilwəta<del>l</del> (Tsleil-Waututh) Nation
- Shaw Centre for the Salish Sea
- Shoreline Cleanup
- Skaana
- Skwxwú7mesh (Squamish Nation)
- SLA Location
- SOI Foundation
- Space for Life / Espace pour la vie
- STEAM Ecosystem BC
- Steveston Community Society
- Stratégies Saint-Laurent
- Surfrider Foundation Vancouver
- Sustainable Ocean Alliance



- Swim Drink Fish
- SWR/ARTE
- Synergy Foundation
- TAIGA
- TakingITGlobal
- TB Academy
- Telefilm Canada
- The Clean Up project
- The Great Northern Ontario Roadshow
- The Halifax Partnership
- The Howe Sound Biosphere Region Initiative
- The Lawrence
- The Manitoba Museum
- The Maritime Museum of British Columbia
- The Outdoor Learning Store
- The River Institute
- The Sustainability Education Alliance at NRFN
- The Three Nations Education Group
- The Westin Harbour Castle Toronto
- Torpedo Rays Scuba Adventures
- Tridel
- Tsleil-Waututh Nation
- Tula Foundation
- U of Gothenburg
- UBC's Faculty of Science
- UN Biodiversity Conference: COP15 in Montréal
- UNIFESP
- University of Victoria
- UofT Trash Team
- Vancouver Maritime Museum
- Water Rangers
- Waterfront BIA
- Waterfront Neighbourhood Centre (WNC)
- Waterfront Toronto
- Wendy Luella Perkins
- World Aquaculture Society (WAS)
- World Fisheries Trust (WFT)
- World Oceans Day Newfoundland and Labrador
- World Rivers Day
- World Wildlife Fund Canada / le Fonds mondial pour la nature Canada
- WWF-Canada
- Year of the Salish Sea

