1.0 Vision
Governments, First Nations, stakeholders, and communities work together to achieve positive outcomes that benefit current and future generations of human and aquatic life in Howe Sound/Atl’kitsem (“the Sound”).

2.0 Purpose
The Howe Sound/Atl’kitsem Marine Reference Guide (MRG) offers resources and support to decision-makers, marine spatial planners, and marine sectors (e.g. industry, recreation, tourism, conservation, education) so that regional marine environmental health and sustainable economic and community development can flourish in tandem.

The objective of the MRG is to provide a unified marine information resource for marine spatial planning and decision-making by all governments, sectors, and communities.² It will support and enable integrated marine management and enhance existing decision-making processes by linking sector planning and management to regional ecosystem frameworks.³ The MRG will be non-binding and respect the authority, rights and title, jurisdictions, and processes of existing First Nations, governments and sectors.

3.0 Context
Howe Sound/Atl’kitsem (Figure 2) is within the traditional ancestral and unceded territory of the Skwxwú7mesh Úxwumixw (Squamish Nation) and borders the Tsleil-waututh, Sechelt and Musqueam Nations’ territories. The region is an ecologically rich marine area that sits directly adjacent to the growing metropolis of Vancouver. As such, it is representative of many parts of the world, where post-contact development confronts socio-ecological integrity.

The MRG builds off the work of numerous groups that focus on improving marine ecosystem health in the Sound (Figure 3). In particular, it relates to the Ocean Watch Howe Sound Edition (2017), which reported the status of various marine ecosystem health indicators and catalyzed action toward collective awareness and management of the Sound’s marine environment. The MRG will learn from other marine spatial planning initiatives in British Columbia, including West Coast Aquatic’s marine guide, the Pacific Northwest Coast Integrated Management Area, the Marine Planning Partnership of the Central and North Coasts, and the Gwaii Haanas Land-Sea-People Management Plan.

¹ This document was approved of by the MRG’s steering committee in October 2018. It is presented for planning purposes and is subject to change upon continual review and revision by the steering committee and leadership partners.
² Based on the Ocean Watch – Howe Sound edition executive summary’s action plan, Action item 1.2
The MRG will be the first tool that pulls together comprehensive data associated with the Sound’s marine ecological and human-use values and that involves multisectoral participation in its leadership and content. In doing so it will build and strengthen relationships amongst the Sound’s numerous marine user groups and governments, which is fundamental to establishing successful and sustainable management. It will also be the among the first tools to bridge the land-sea boundary by adopting a watershed scope for content and data.

4.0 Deliverables
The MRG will produce the following:

*Interactive map* – An online interactive map that displays spatial data associated with the Sound’s marine environment and watersheds (including ecological, biophysical, human-use, industrial, recreational, socio-economic, cultural and long-term ecological monitoring data layers). This will enable overlaying data layers to understand multi-use of marine spaces and to reduce conflict between user groups. The map will also provide data analysis and cumulative effects assessments tools.

*Narrative resources* – The MRG will provide resources that detail best practices, recommended uses of and objectives for the marine environment to protect significant ecological, industry, recreation, and socio-cultural values, and will support an action framework for decisions regarding the management of watershed ecosystems and activities. These resources will be informed by the collated knowledge and data provided in the interactive map, developed by the management team, and approved of by the leadership partners and steering committee.

5.0 Goals

1. *Strengthen collaboration between First Nations, governments and marine sectors*

   **Objectives:**
   a. Relationships between First Nations and governments are strengthened and collaboration advances reconciliation
   b. Decision making is collaborative and consensus-based, while respecting the rights, title and jurisdiction of each First Nation and government
   c. Sense of place and community is strengthened by improving communication and coordination between First Nations, governments, and marine sectors
   d. Marine sectors and stakeholders participate actively either on the steering committee or through community dialogue and engagement
   e. The MRG deliverables reflect the values, needs, and hopes of the Sound’s community.

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4 Based on the Ocean Watch – Howe Sound edition Executive summary’s action plan, action item 1.1
5 Based on the Ocean Watch – Howe Sound edition Executive summary’s action plan, action item 1.3 and 1.4
Wording borrowed from the Marine Plan Partnership MOU between the Province of British Columbia, First Nations of the Pacific Coast and Tides Canada.
6 Wording borrowed from the Gwaii Haanas Land-Sea-People Management Plan between the Council of the Haida Nation and the Government of Canada.
2. **Build knowledge and capacity to protect, restore and be stewards of the health, biodiversity and human-value of Howe Sound/Atl’kitsem’s marine environment**

**Objectives:**
- Knowledge gaps are filled for key ecological features species and habitats\(^7\), data-poor regions of the Sound, human-associated data layers (e.g. economically or socio-culturally important areas)
- The ten data layers outlined in Figure 2 are documented and integrated in the MRG deliverables to the best of our knowledge and capacity (subject to privacy concerns)
- As assessment of the multi-use of marine spaces helps to understand how different user groups interact with the marine environment and in doing so reduce user conflict and support sustainable management
- Community partnerships are supported between First Nations, marine sectors and academic institutions to improve long-term ecological monitoring (e.g. plankton and oceanographic monitoring), support cultural activities, strengthen traditional knowledge sharing from First Nation elders to youth, and build local stewardship capacity.\(^8\)
- The knowledge gathered helps to address and mitigate threats currently facing the marine environment (e.g. poaching, illegal and unregulated activities)

3. **Support decision-making and regional development over the long-term that integrates the values and information available in the MRG**

**Objectives:**
- Governments, First Nations and marine sectors trust and refer to the MRG to guide and support their decision-making
- The MRG informs research and regional community and economic development
- A long-term sustainability plan ensures that the information contained within the MRG is up-to-date and accurate beyond the project’s three-year development and implementation phase

4. **Endorse a holistic understanding of Howe Sound/Atl’kitsem and advance knowledge and appreciation of the region**

**Objectives:**
- Awareness of and connection to the Sound increases at local, regional, and national levels
- Engagement with youth increases

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\(^7\) This includes but is not limited to conducting UAV surveys for nearshore monitoring and ROV surveys for groundtruthing benthic habitats (e.g. suitable rockfish habitat and glass sponge reef locations).

\(^8\) This may learn from and eventually evolve toward the Guardian Watchmen Program.
c. Comprehension of the interconnected nature of human, terrestrial and marine systems increases
d. The MRG advances opportunities to learn about the unique attributes and narratives associated with the Sound beyond the region.

6.0 Principles
The MRG will work in accordance with the following principles:

Shared responsibility – First Nations, governments, marine sectors, and communities in the Sound acknowledge a shared responsibility for marine environmental health.9

Ecosystem and watershed approach – The MRG acknowledges the intrinsic relationship between terrestrial, freshwater, and marine ecosystem components. Accordingly, MRG’s outcomes and processes will adopt an ecosystem approach that balances ecosystem function and connectivity with human activity on land and at sea.3

Adaptive process – The MRG will integrate local and traditional knowledge together with historic, industrial, ecological, and social information, and acknowledges that project objectives, processes and outputs will iterate over time as available knowledge continually improves.9

Respect – The natural world, First Nations’ traditional laws, rights and title, and the rights and responsibilities of marine sectors and regional residents are respected.10

Transparency – Operations and communications are clear, fair and open, and decision-making is accountable to the public and stakeholders.10

Inclusivity and trust – All sectors, communities, and persons impacted by this project will have the opportunity to participate in a fair and open manner in order to strengthen trust and respect within the Sound’s community.9

Information to action – Upon gathering knowledge and reaching consensus, the MRG will transform knowledge into action. Outcomes will vary depending on the topic, and may include outreach events, dissemination of information, and hands-on activities.9

7.0 Management structure

Leadership partners:
Structure: First Nations and the Local Governments will form the MRG’s leadership partners and will oversee the project’s evolution. The Provincial and Federal Governments may be integrated into this role and relationship as the planning evolves.

9 Wording borrowed from West Coast Aquatic’s Governance Board Manual, 2017.
Responsibilities: The leadership partners are responsible for decision-making by consensus associated with the project’s scope and development, and for ensuring that the project progresses using collaborative, integrated, and respectful frameworks.

Steering committee:
Structure: 8-10 respected representatives and champions from First Nations, governments, and marine sectors. Individuals are committed to the project vision, principles, and goals. They have experience overseeing large projects and are willing to meet quarterly or as needed.
Responsibilities: The steering committee will steer the project progression and provide advice on reports, draft products, studies, and strategies. They are responsible for decision-making by consensus associated with the project’s development and implementation. They will act as champions to extend the project’s network and outreach, collectively decide upon and approve the narrative resources associated with the map and assist in acquiring available information.

Management team:
Structure: 2-4 qualified individuals that have knowledge about Howe Sound/Atl’kitsem’s marine environment, experience in project management, GIS website and data management, communications, and research.
Responsibilities: The management team will draft plans and documents associated with the project’s framework, seek and secure funding, report to the steering committee and leadership partners, ensure deliverables and outcomes are achieved on time and budget, hire staff and contractors as needed, organize meetings and maintain records, establish linkages with relevant groups and projects, and ensure regular communications.

Administrative body:
Structure: The MRG is a project on the Tides Canada’s shared platform. Tides Canada is a national Canadian charity dedicated to a healthy environment, social equity, and economic prosperity.
Responsibilities: Tides Canada has full fiduciary and governance responsibility for the MRG.

8.0 Timeline
Phase 1: Planning (May-September 2018)
Outputs: Terms of Reference, Project Plan, confirmed management structure
Budget: $30,000 from the BC Marine Planning Fund; $4950 from Ocean Leaders.
Activities: Outreach within Howe Sound/Atl’kitsem to build relationships and identify the use of this tool by decision-makers and the community; identify management structure and leadership

11 Shared decision-making by consensus involves coming to an agreement that the members can live with. The members may not agree with every aspect, but taken as a whole, a decision based on consensus satisfies the major interests and concerns of the members to the extent that all can support it. Wording taken directly from West Coast Aquatic’s Governance Board Orientation Manual.
Phase 2: Implementation (September 2018 – August 2021)

Outputs: Achievement of the project’s deliverables, vision and goals.

Budget: ~$200,000/year; $20,000/year from Local Governments, the rest from foundations and contributors (Figure 1).

Timeline:

Year 1: Data collection (September 2018-August 2019)
Activities and deliverables: Build and expand marine datasets, community engagement and outreach, organizational partnerships and project expansion

Year 2: Data analysis (September 2019-August 2020)
Activities and deliverables: Conduct a cumulative effects assessment\(^{12}\) based on available data, community engagement and outreach, collectively agree upon narrative resources

Year 3: Training, outreach and project conclusion (September 2020 – August 2021)
Activities and deliverables: Familiarize regional planners, staff, and community members with how to use the MRG, formulate a long-term sustainability plan

9.0 Partners and people

Leadership Partners
Ocean Watch Task Force\(^{13}\), Squamish First Nation

Steering Committee
Ian Ross, Terminal Forest Products
Jessica Schultz, Ocean Wise
Sarah McJannet, District of Squamish
Ruth Simons, Howe Sound Biosphere Region Initiative
Kelly Binning, Department of Fisheries and Oceans
Randall Lewis, Squamish Nation
Megan and Eric Sewell, Sewell’s Marina
Adam Taylor, Underwater Council of British Columbia
Trevor Dunn, Sea to Sky Gondola
Bill Wareham, David Suzuki Foundation

Advisors
Andrew Day, BC Parks Foundation, Darcy Dobell, the Wabe

Supporters
Confirmed: Moore Foundation, Sitka Foundation, Vancouver Foundation, District of Squamish, Islands Trust, District of West Vancouver, Town of Gibsons, Village of Lions Bay, Bowen Island Municipality, Squamish-Lillooet Regional District, Sunshine Coast Regional District,
Proposed: North Growth Foundation, National Geographic, Real Estate Foundation, Moore Foundation

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\(^{12}\) The MRG’s cumulative effects assessment (CEA) will complement and support the Province’s CEA, which is being conducted by the Ministry of Forests, Lands, Natural Resource Operations, and Rural Development.

\(^{13}\) The Ocean Watch Task Force was established by the Howe Sound Community Forum with a principal goal of furthering the action items outlined in the report’s Action Plan, the first of which is this project.
### Tides Canada Initiatives Society

#### Howe Sound/Atl’kitsem Marine Reference Guide

**2019-2021 Operating Budget (1 Jan - 31 Dec)**

<table>
<thead>
<tr>
<th>Notes</th>
<th>2019</th>
<th>2020</th>
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#### PROGRAM EXPENSES

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<tr>
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<th>Total</th>
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<td><strong>TCI Overhead Allocation (12%)</strong></td>
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<td></td>
<td>Project Director, Indigenous Youth Project Leads, FN Research Lead, Research &amp; communications</td>
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<td>60,000</td>
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<tr>
<td><strong>Contracted services</strong></td>
<td>Professional Services</td>
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<tr>
<td><strong>Office and field expenses</strong></td>
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<td>11,000</td>
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**Figure 1. Operating Budget (Jan 2019).**
Figure 2. A map of Howe Sound/Atl’kitsem (courtesy of the Howe Sound/Atl’kitsem Marine Conservation Assessment).
**Figure 3.** A review of the connectivity of various initiatives in Howe Sound/Atl'kitsem.

The flow and integration of marine initiatives - past present and future - in Howe Sound/Atl’kitsem.

**Federal Initiatives**
- Oceans Protection Plan
- Cumulative effects assessment of Marine Shipping
- Problem Vessels Inventory
- Ecosystem and resource management
- Glass sponge reef protection

**Marine Reference Guide**
*Who:* Ocean Watch Task Force, Squamish First Nation, all marine sectors, stakeholders
*What:* Decision support tool with multisectoral engagement

**First Nations Initiatives**
- Squamish Nation Marine Use Plan
- Tsleil-waututh Nation Burrard Inlet Action Plan

**Provincial Initiatives**
- Cumulative effects assessment
- Terrestrial Ecosystem Mapping
- Stewardship baseline objectives tool (SBOT)

**Regional and Community Initiatives**
- Squamish Marine Action Strategy
- Salish Sea Nearshore Habitat Recovery
- Community Mapping Network
- Howe Sound Biosphere Region Initiative

**Socio-ecological**
- Ecological
- Human use
- Education
- Citizen science

**Regional Initiatives**
- Islands Trust eelgrass and forage fish
- Islands Trust regional conservation plan
- Official Community Plans
- Skwelwi’em Squamish Estuary Management Plan
- Environmental impact assessments and referrals

**Transboundary Initiatives**
- Salish Sea Ecosystem working group
- Puget Sound Partnership
- Salish Sea Institute


**Conservation Initiatives**
- Gambier Island park study
- Natural capital report
- BC Marine Conservation Atlas
- Glass sponge reef mapping
- BC Cetacean Sighting Network
- Rockfish and lingcod surveys
- Citizen Science, monitoring and research

**Database**
- Ecological
- Recreation
- Industrial
- Biophysical
- Monitoring
- Socio-ecological
- Socio-cultural
- Human use
- Education

**Graphic created by Fiona Beaty (fionabeaty93@gmail.com) Version 17: Sept 17, 2018**

Please note that this is an ongoing, iterative graphic and is not meant to omit or exclude any initiatives - if you have comments or additions that you would like to see integrated into it please contact Fiona.