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## Ocean Watch reports and the Ocean Watch Task Force: a powerful science translation combination

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***Ocean Watch Reports and the  
Ocean Watch Task Force: a  
powerful science translation  
combination***

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Photo – Howe Sound  
Credit: Tracey Saxby, Visual Science



## Ocean Watch reports



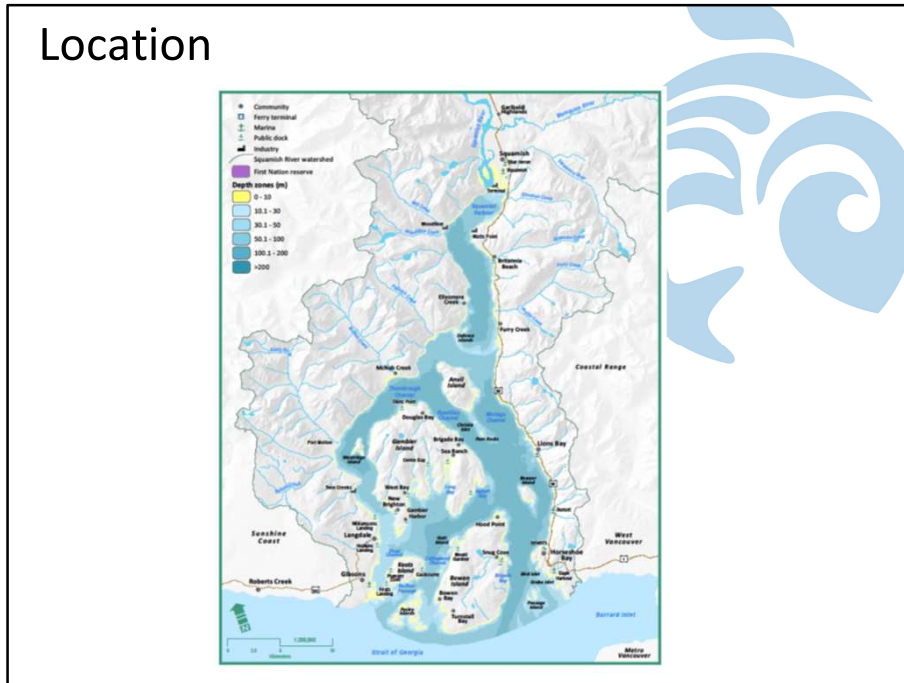
These are the covers of the two Ocean Watch reports produced to date – Ocean Watch Howe Sound Edition (2017 – left hand side) and the Ocean Watch B.C. Coast Edition (2018 – right hand side).

An update to the Howe Sound Edition is currently in progress, due for release later in 2020. These reports provide easy-to-read information on the state of the health of the local coastal marine environment, using evidence-based knowledge (drawing on science, community knowledge, citizen science, and Indigenous Knowledge).

Each article comes with a list of recommended actions to help improve the current state of the topic e.g., restore vegetation along salmon bearing streams; fund research on salmon etc. Different actions are provided for individuals or organizations to take, and for local, provincial, and federal government to take.

Our focus is the Ocean Watch Howe Sound Edition (2017) because of the upcoming update release and the great strides taken within this community to drive positive change in the marine environment.

## Location

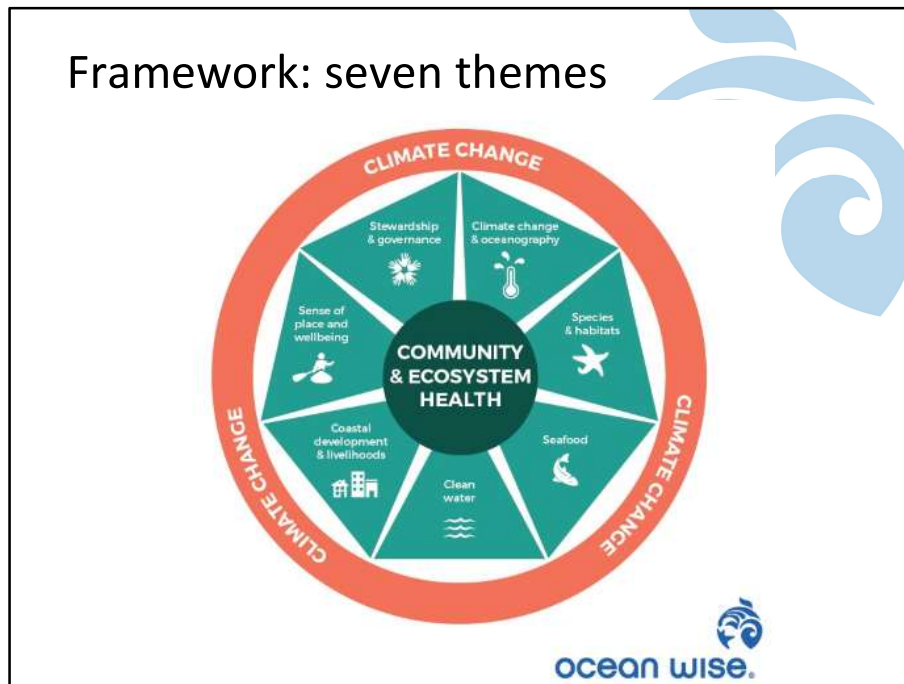


Located north of Vancouver, Howe Sound/At'ka7tsem is an inlet of the Salish Sea, carved by glacial ice into the surrounding mountains to form a fjord (Figure 1). It is the traditional, unceded territory of the Skwxwú7mesh Úxwumixw/Squamish Nation.

You can just see Metro Vancouver in the bottom right hand side of the map, to give you an idea of location.

You drive along Highway 99 from Vancouver to Whistler, also known as the Sea to Sky Highway, shown as the red line on the map – the water beside this highway is the Sound. The area is governed by 10 local municipalities/councils and one First Nation group - Skwxwú7mesh Úxwumixw/Squamish Nation.

## Framework: seven themes



### Framework of the reports:

The articles in the report are organized under 7 interconnected themes, which capture ecosystem and community topics. Themes range from climate change and oceanography, to sea food, clean water, and coastal development and livelihoods, sense of place, and stewardship and governance.

Articles are written specific to each theme. For example, glass sponge reefs, sea stars, salmon, herring occur within the species and habitat theme.

In total, the 2017 report had more than 30 articles.

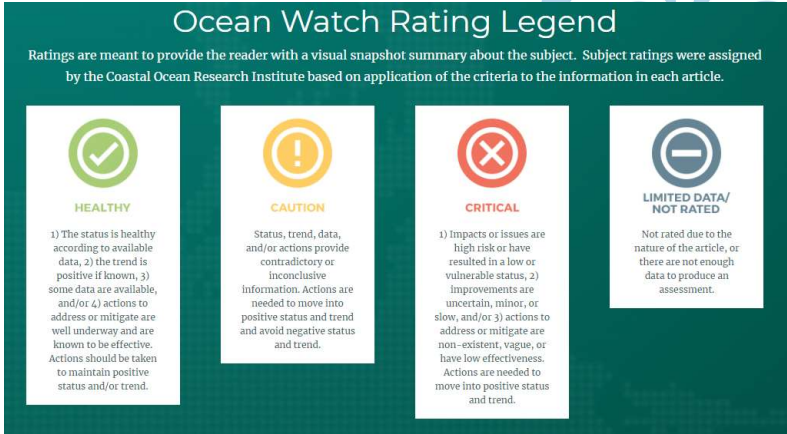
The upcoming 2020 edition will have around 40 articles within these themes, as we identified new topics/issues to include – for example, an article explaining climate change in more detail, an article examining how municipalities can transition to zero-carbon emissions, one looking at ocean acidification (an issue related to but not driven by climate change), a new article on pinnipeds, one on environmental contaminants, and another on plastics.

Climate change is pervasive and touches on all aspects of these themes, thus the red ring around the themes.

There is a greater focus on climate change in the upcoming 2020 edition, and the climate change section will be the first theme when the new report is released (previously Species

and Habitat was the first theme). Every article also now has a high-level section examining how climate change will affect that topic, for example, How will climate change impact outdoor learning? How will climate change impact coastal development? Etc.

## Ocean Watch Health Rating



**Ocean Watch Rating Legend**

Ratings are meant to provide the reader with a visual snapshot summary about the subject. Subject ratings were assigned by the Coastal Ocean Research Institute based on application of the criteria to the information in each article.

HEALTHY	CAUTION	CRITICAL	LIMITED DATA/ NOT RATED
1) The status is healthy according to available data, 2) the trend is positive if known, 3) some data are available, and/or 4) actions to address or mitigate are well underway and are known to be effective. Actions should be taken to maintain positive status and/or trend.	Status, trend, data, and/or actions provide contradictory or inconclusive information. Actions are needed to move into positive status and trend and avoid negative status and trend.	1) Impacts or issues are high risk or have resulted in a low or vulnerable status, 2) improvements are uncertain, minor, or slow, and/or 3) actions to address or mitigate are non-existent, vague, or have low effectiveness. Actions are needed to move into positive status and trend.	Not rated due to the nature of the article, or there are not enough data to produce an assessment.

A health rating was assigned to each article, where applicable, based on the availability and trend indicated by data presented, and how high risk or vulnerable an issue or topic was. In fact, in the 2017 report, the Ocean Health Index was also used, however we found through community feedback, that this was confusing to most people – which health rating was more appropriate and correct, which one should the communities be paying attention to? As such, and also based on the feedback, we decided to move forward using just the Ocean Watch health rating system.

There are four levels of “health” based on a traffic light colour scheme.

Green = healthy

Yellow = caution

Red = critical

Grey = limited or no data

More details of the criteria that had to be met to achieve each rating is given in the slide.

For the update we convened a committee of members from the community and scientists to help assign these ratings. We had a minimum of 3 sets of eyes on each article. The reason behind this was 3-fold: 1) to increase ownership of the report in the community; 2) to increase transparency of how this part is done; and 3) to invite feedback from a wider

range of people, beyond the reviewers (each article was reviewed separately). All 3 people had to discuss through their ratings and agree on a final rating.

Key issues impeding improvement towards a “healthy” rating were identified, many of which had cross-cutting themes (e.g., limited monitoring and baseline data; loss of habitat and contamination due to industrialization; governance by more than ten different local government bodies). From the identification of key issues and the recommended actions in the articles, an action plan was created to guide communities in the Sound on how they could improve the overall health of their local coastal environment.



## Recommended Actions

What can you do?  
Some Actions Contributed by CORI



### Individual and Organization Actions:

- Bird watching is one of the fastest growing hobbies in North America. Whether you are a beginner or advanced, you can join one of the annual Christmas Bird Counts that occur in West Vancouver, Bowen Island, Squamish, and the Sunshine Coast, or the more frequent monthly bird counts with the Squamish Environment Society or Lighthouse Park Preservation Society. It is a great way to learn from people who know more than you.
- If you are a knowledgeable birder, you can submit your observations directly through eBird, the online repository for worldwide bird observations managed by the Cornell Lab of Ornithology. Any unusual sightings require an accompanying photograph to be accepted by eBird.
- Keep your practices friendly to marine birds. During the spring and summer, stay away from offshore rocks that are nesting sites for oystercatchers, gulls, and cormorants. Never take your dog to these islands.
- During the winter, don't disturb flocks of winter birds along the coastline. You may disrupt their feeding or resting and cause them to waste valuable energy.
- Collect lost nets and traps and plastics on beaches that might trap or kill birds.



### Government Actions and Policy:

- Continue to support and facilitate the education, monitoring, and restoration activities of local groups in Howe Sound. Provide funding assistance and partnership opportunities where feasible.
- Increase monitoring and enforcement of illegal bird harvesting.
- Legally recognize and strictly regulate Important Bird Areas as Protected Areas, especially in IBAs that do not have established legal protection (e.g., National and Provincial Parks). Where this is not feasible, consider conservation easements and agreements, private land stewardship, and land acquisition to ensure protection.
- Explore the possibility of increasing the size of the Skwelwil'em Wildlife Management Area or Nature Trust Conservation Area, or create more Wildlife Management Areas to increase protection.

Every article, where applicable, had a list of recommended actions that individuals, organizations, and government (all levels) could take to improve the health of the local marine environment.

This example is taken from the 2017 Marine Birds article.

In the upcoming update report, we have re-examined the recommended actions to see where actions have been taken, if we could tell (not so easy on an individual level), and to identify any new actions that would make sense to recommend.

However, with so many actions, and so many issues identified as “roadblocks” to moving forward, it was difficult for local governing bodies to know how to move ahead in a collaborative, coordinated manner.

## Ocean Watch Task Force



Howe Sound Community Forum, April 26, 2019 (Credit: Kyla Hemmelgarn)

To implement the actions from the 2017 report, the Ocean Watch Task Force (OWTF) was formed. The OWTF was a sub-committee of the already existing Howe Sound Community Forum (pictured above at the April 26<sup>th</sup> 2019 forum meeting), a group formed that includes all governing bodies and stakeholders in the Sound, which meet twice a year. This shows the great motivation and steps already taken in the community to try to work together to improve the health of their local marine environment.

The mandate of the OWTF was to:

1. Identify actions in the 2017 *Ocean Watch Howe Sound* report within the mandate and reach of HSCF member communities.
2. Identify what Local and Squamish Nation Governments are already doing on these actions.
3. Identify selected actions for implementation by Local Governments (LGs) and First Nations, highlighting those that include policy integration and collaboration.
4. Recommend a process through which the selected actions get done.

The OWTF comprised members of local governments, First Nations, government representatives, planning staff, and NGOs. A key outcome was the creation of a strategic plan (OWHS 2019) to guide local governments in taking steps towards achieving healthy coastal environments in a coordinated, collaborative manner (addressing point 4 of the

mandate above).

This strategic plan can be viewed at:

[https://assets.ctfassets.net/fsquhe7zbn68/35qzo0mjdczkcfHbZeWMTV/b80b29d633a9ae1bd5275b3acf0f82f1/OWTF-Strategic-Plan\\_updated.pdf](https://assets.ctfassets.net/fsquhe7zbn68/35qzo0mjdczkcfHbZeWMTV/b80b29d633a9ae1bd5275b3acf0f82f1/OWTF-Strategic-Plan_updated.pdf)

It was the collaborative efforts of the people on the OWTF to highlight which actions should be tackled first, which actions were not feasible or within the mandate of local jurisdictions to undertake in the current period, and what and how actions could be advanced.

Several other important conservation tools were developed or are still in progress, for example:

- the Ocean Watch Health Rating Legend, which will be implemented again in the upcoming update (OWHS 2017);
- the creation of the Howe Sound/Atl'ka7tsem Marine Conservation Assessment online map (Beaty et al. 2018);
- the Provincial Cumulative Effects Assessment (B.C. Govt 2019);
- the development of a Howe Sound/Atl'ka7tsem Marine Reference Guide (MRG 2019).

These are all important tools based on data collected from Western and/or citizen science, local knowledge and stories, with Skwxwú7mesh Úxwumixw/Squamish Nation knowledge. In addition, work continues towards the designation of Howe Sound/Alt'ka7tsem as a United Nations Educational, Scientific, and Cultural Organization (UNESCO) biosphere region (HSBRI 2019).

As an integrated source of different types of knowledge, OWHS 2017 gave a sense of ownership to the many communities throughout the Sound. It has provided an effective means of bridging the science-action gap, and carried this out through the OWTF, which turned out to be a very powerful tool in driving forward actions.

Based on feedback for the OWHS 2017 report, demand was created for an updated report which, as already noted, is due for release this summer. The update has a strong focus on climate change impacts on the marine environment. We anticipate that it will continue to unify and motivate the communities in Howe Sound/Atl'ka7tsem to work towards successful conservation outcomes, especially in the face of uncertainty from climate change.

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Funders of Ocean Watch – thank you.