



MEMBER TYPE:

GOVERNMENT MEMBER

#### POINT OF CONTACT:



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### **LOCATION:**



**CONTINENT:**NORTH AMERICA

OCEAN BASIN: PACIFIC

**POPULATION SIZE:** 5,000,000

## **KILOMETERS OF COASTLINE:**



27,200 km

## REGIONALY SIGNIFICANT MARINE ECOSYSTEMS:











THE **OA ACTION PLAN**WAS COMMISSIONED THROUGH:

MINISTRY, COUNCIL OR DEPARTMENT DECISION TRIGGERED BY OA ALLIANCE MEMBERSHIP

# REGIONALY SIGNIFICANT USES OF RESOURCES:



Coastal tourism Artisanal or subsistence fisheries

Commercial fisheries



Cultural practices or traditions

## ADVANCING OA ACTION PLANNING

#### Main reason why an OA Action Plan was created/ decided to work on ocean acidification:

The BC Preliminary Climate Risk Assessment identified OA as an immediate high-risk threat and recommended further evaluation of its impacts.

It is now apparent that ocean warming, acidification, and hypoxia threaten the health of marine ecosystems with impacts to shellfish, salmon, and BC's aquaculture and wild capture fisheries.

This threatens food security and the ocean economy and harms the well-being of coastal communities, industries and First Nations that depend on them.

OAH will be particularly challenging for the economies and social cultural fabric of BC's coastal First Nations. With strong ties to coastal waters, First Nations have been participating in fisheries and shellfish aquaculture since time immemorial.

The BC OAH Action Plan will increase collaboration, understanding, and response to OAH in BC's coastal waters. As the first Canadian province to construct an OAH Action Plan, British Columbia is breaking new ground.

#### Body that approved the final set of recommendations:

British Columbia Ocean and Acidification and Hypoxia Action Plan (OAH Action Plan) was developed by the Ministry of Agriculture and Food, at the request of the Climate Action Secretariat of the BC Ministry of Environment and Climate Change Strategy. Implementation will be overseen by a multi-jurisdictional, multi-disciplinary committee of policy, science experts, First Nations, community and government leaders. The implementation phase of the BC OAH Action Plan will span May 31, 2022 to March 31, 2025 and consist of a series of key discrete activities.

#### **OA Action Plan policy context:**

The OAH Action Plan will support commitments across the CleanBC Roadmap to 2030 and the Climate Preparedness and Adaptation Strategy by addressing impacts of climate-ocean change and their interaction with other marine stressors in our region.

Key actions addressed in the CleanBC Roadmap to 2030 includes:

- 1. Supporting GHG efficient practices;
- 2. Exploring the potential for seaweed aquaculture to sequester carbon; and
- 3. Negative Emission Technologies (in the coastal marine environment).

Key actions addressed in the Climate Preparedness and Adaptation Strategy includes assessing climate risks and vulnerabilities to B.C. fisheries and aquaculture. The BC OAH Action Plan addresses impacts of changing ocean conditions due to ocean acidification and hypoxia and their interaction with other marine stressors. While the plan addresses these issues through a fisheries and aquaculture lens, the scope is intended to reach beyond these

sectors and is intended to be the first step in the development of a living document that considers BC coastal marine ecosystems, communities, industry and economy. The OAH Plan will also inform an important component of the BC Coastal Marine Strategy and will support the Canadian Blue Economy Strategy.

#### Partners involved in helping to draft or conceive the OA Action Plan:

- Academic institutions
- Government or municipal departments
- Industry, associations or organizations
- Tribal governments, indigenous communities or First Nations
- NGOs
- Monitoring and science networks

## PRIORITIES & RECOMMENDATIONS

OA Alliance Toolkit themes included in the Action Plan:

#### ADVANCING SCIENTIFIC UNDERSTANDING:

Improving understanding within the region, including support for monitoring, research and OA observations.



REDUCING ATMOSPHERIC EMISSIONS OF CO<sub>2</sub>,

the number one cause of ocean acidification



REDUCING LAND-BASED POLLUTIONS

(e.g. wastewater, stormwater, agriculture runoff, nutrients) that can exacerbate coastal conditions.

#### BUILDING ADAPTATION AND RESILIENCY:

Actions that assist oceandependent communities, industries, and marine ecosystems in adapting to increasing acidity in marine waters.



**EXPANDING PUBLIC** AWARENESS:

Engaging policy makers, scientists, local communities/villages and the public about the growing threat posed by OA, as well as local actions that may be taken to address OA.



## BUILDING SUSTAINED INTERNATIONAL SUPPORT:

Advocating for sustained funding, nationally and regionally, for coordinated research and OA observation systems, to continue to inform governments and others about the increasing impacts of OA.

#### Highlights from the OA Action Plan that are unique to jurisdiction/regional context:

A BC OAH Scientific Assessment was created and included input from a 2022 workshop series.

Through that process, the BCOAH Action Plan identified 5 goals that aim to enhance understanding and awareness of OAH and build stronger resilience with approaches to enhance mitigation and adaptation. In total, 62 actions were identified across 15 objectives and 5 goals.

#### Unique aspects include:

- 1. Appointing a multi-disciplinary, multi-agency OAH Task Force.
- 2. Organizing an annual workshop for industry, research, and community groups working on and concerned about OAH.
- 3. Collaborating with Indigenous communities to identify funding for data collection (including Indigenous knowledge), information exchange, and stewardship decisions.
- 4. Developing best practices for assessing biological impacts.
- 5. Inventory and protect existing blue carbon ecosystems.
- 6. Develop a scientific assessment of marine carbon dioxide removal approaches for BC.

# MEASURES OF SUCCESS, CHALLENGES & LESSONS LEARNED

#### Main challenges encountered while drafting the OA Action Plan:

OAH can have direct and indirect effects on species and ecosystems, with economic and cultural impacts on human populations. This is why it's important to fill gaps and prioritize research to understand biological impacts OAH has on important marine species found in BC.

Additionally, multi-scale action to address OA is vitally important.

For years, BC has been working closely with government partners across the Pacific Coast of North America to advance coordinated monitoring, assess risks of climate change, and formulate management response strategies.

Internationally, the UNGA established an OA reduction target in SDG 14.3 and the UN Decade of Ocean Science includes an Ocean Acidification Research for Sustainability programme.

We must all must be part of increasing the understanding of ocean chemistry changes and their impacts on marine life. This includes continuing to integrate climate-ocean and coastal strategies through the development of OAH Action plans around the world.

#### What will success look like in 5 years?

BC has released a Climate Preparedness and Adaptation Strategy that highlights OAH Action Plan implementation as essential to "enhancing the resiliency of species and ecosystems through improved understanding of the impacts of climate change on key species, habitats and ecosystems".

The success of the OAH action plan will be gauged by a provincially appointed OAH Task Force.

BC's Climate Change Accountability Act provides additional avenues for review and evaluation through the comprehensive re-assessment of climate risks on a 5-year basis – as well as through the annual Climate Change Accountability Reports that should include metrics of OAH for BC.

Ultimately, successful implementation of the BC OAH Action Plan would establish a sustained and coordinated focus and increased investments in OAH activities across relevant climate and ocean policies.

#### Financial investments/ commitments made to help advance proposed recommendations to-date:

Financial investments by the Provincial Government and outside partners were made available to support the workshop series and development of the OAH Action Plan.

Moving forward, OAH activities may receive Provincial funding through other mechanisms including implementation of Climate Preparedness and Adaptation Strategy. However, financial support from outside partners will be essential for accelerating coordination and implementation of the OAH Plan's recommendations over the next 5 years.

Additionally, British Columbia's OAH Action Plan is now an endorsed project of the UN Decade of Ocean Science—which may help accelerate funding support.

#### Additional highlights based on experience developing an OA Action Plan

We know the power of multi-scale and international collaboration. From provincial to global scales, coordination, and collaboration to address the existential threat of OAH to coastal environments and societies is our best path forward. BC's OAH Action Plan strives to embody this spirit and serve as a model, along with earlier action plans, for jurisdictions to join this collective vision.

"I would like to thank the Advisory Committee for the work they have done to develop this comprehensive action plan. First Nation coastal communities rely on the ocean to sustain our way of life, culturally and economically. We recognize that ocean acidification and hypoxia pose a real risk to our coastal waters in BC and will impact our traditional way of life, fisheries and aquaculture.

This action plan lays out a path forward. All levels of government need to work collaboratively and in this era of reconciliation need to recognize the unique role of First Nations in ensuring meaningful participation in the process."

- Richard Harry, President, Aboriginal Aquaculture Association



# INTERNATIONAL ALLIANCE TO COMBAT OCEAN ACIDIFICATION

Learn more about how you can advance climate-ocean action through the OA Alliance. Visit:

www.oaalliance.org

