

# Executive Summary



1st Biennial Report to the Legislature and Ocean Policy Advisory Council

## Oregon Coordinating Council on Ocean Acidification and Hypoxia

Oregon is among the first places in the world to observe direct impacts of ocean acidification and hypoxia (OAH), which challenged the oyster culture industry's ability to grow larval oysters starting in 2007. While the oyster industry has implemented solutions for successfully propagating oysters in closed tank systems, OAH events are projected to intensify and threaten our wild fisheries and rich ocean ecosystem. In response, the Legislature passed Senate Bill 1039 in 2017, creating the Oregon Coordinating Council on OAH, mandated to provide recommendations and guidance to the State on how to respond to this issue. The first biennial report from the OAH Council to the Legislature is hereby submitted, in September 2018. The Council report makes recommendations on actions to take in five Theme Areas, each action shaped to help Oregon adapt to an uncertain future of change.



### THEME 1

Strengthen Ocean Acidification and Hypoxia Science, Monitoring and Research. Identify and develop information critical for Oregon to understand, adapt to, and mitigate OAH impacts.



### THEME 2

Reduce Causes of Ocean Acidification and Hypoxia. Develop a coordinated approach for CO<sub>2</sub> and OAH management and mitigation, and implement strategies to reduce factors that cause or exacerbate OAH.



### THEME 3

Promote Ocean Acidification and Hypoxia Adaptation and Resilience to OAH. Support activities and initiatives that promote adaptation and resilience to OAH conditions, for Oregon's human communities and ecosystems.



### THEME 4

Raise Awareness of Ocean Acidification and Hypoxia Science, Impacts, and Solutions. Identify and advance opportunities to raise awareness of and communicate OAH science, impacts, and mitigation solutions.



### THEME 5

Commit Resources to Ocean Acidification and Hypoxia Actions. Support a sustained, long-term approach to addressing OAH including a policy declaration, funding for actions that require additional capacity, and reinforcement of Oregon's intellectual capital to meet future challenges.

In these five Theme Areas, the OAH Council developed 12 general recommendations, and 38 specific actions. All recommendations and actions were agreed upon as important by all voting members on the Council. **The table (below) describes how each Theme relates to Section 3.1.b of Senate Bill 1039.**

**Table. Senate Bill Enrolled 1039 Section 3.1.b (A)-(G) legislative text, related to the OAH Council Themes (1)-(5).**

Senate Bill 1039, Section 3.1.b (A)-(G) Actions and Initiatives		Council Recommendation Themes				
		1	2	3	4	5
(A)	<i>Develop strategies to mitigate OAH</i>	✓	✓			✓
(B)	<i>Strengthen scientific monitoring, research and analysis</i>	✓				✓
(C)	<i>Identifying habitats vulnerable to corrosive sea water</i>	✓				✓
(D)	<i>Identifying the socioeconomic and ecosystem impacts</i>	✓				✓
(E)	<i>Steps to increase public awareness of the science</i>		✓	✓	✓	✓
(F)	<i>Developing long-term coordination strategy</i>	✓	✓	✓	✓	✓
(G)	<i>Leveraging opportunities for research partnerships</i>		✓	✓	✓	✓

## Council Guiding Principles



Excess CO<sub>2</sub> in the atmosphere and in the oceans is the core global problem to address; there are meaningful State actions that will help address excess CO<sub>2</sub>.



It is essential to develop benefits for ecosystem and human communities alike; they are inter-dependent and are both essential to Oregon's future.



Actions should be specifically relevant to Oregon, and within Oregon's means to accomplish.



Solutions should complement existing management frameworks rather than create new ones; collaborate and align with existing groups to avoid redundancy.



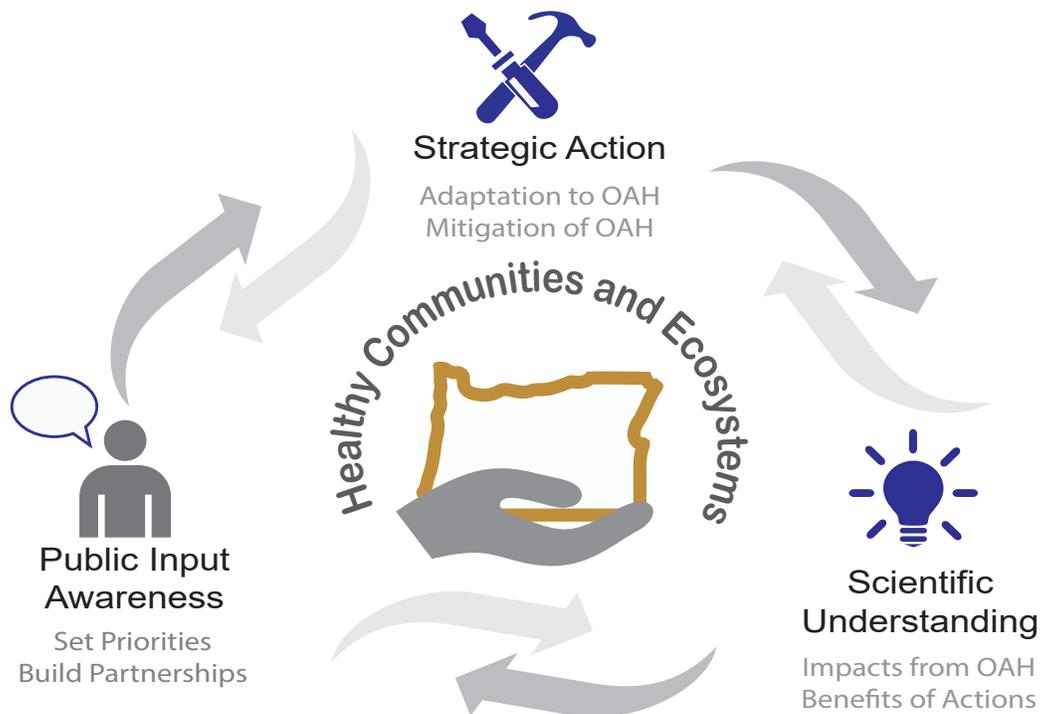
Benefits of actions should be targeted to Oregon; consider and provide benefits to the region and globally, as possible.



Council recommendations are a starting point; iterative refinement and public input is needed as well as input from the Legislature and the Governor.

# Council Process

To sustain Oregon's marine-based food supply and our cultural and economic well-being, the OAH Council recommends taking strategic action to understand, adapt to, and mitigate OAH in an iterative process, including repeated public input, scientific inquiry and action planning. Oregon must act swiftly to set short-term priorities and make progress quickly in order to maximize our options and effectiveness. However, Oregon also needs a sustained, long-term approach to addressing OAH impacts and much of what the OAH Council recommends will take time to implement.



## OAH Council Report (2018) and OAH Action Plan (2019)

The OAH Council met monthly from January to August 2018, with working subgroup meetings between each Council meeting from March-July. During these meetings, each Council member brought their unique perspective (see OAH Report Appendix B for Council members' biographies) and expertise to bear on Council discussions. The final report (submitted September 2018) informs and provides the basis for the development of the Oregon OAH Action Plan, targeted for completion in June 2019. The Action Plan will identify the actions that Oregon is ready to commit to and will flesh out the scope, methods, and resources needed to implement each action. The Council agreed by consensus to include all 38 actions in the 2018 report. However, a general prioritization exercise (in which Council Members anonymously rated each action from lower to higher relative value), and the summarization of results reveal the recommended actions for that merit immediate attention.

# Actions Recommended for Immediate Attention

Through rating the relative value of each of the 38 specific actions, the Council recommends the following 7 actions for immediate attention:

-  **Support and maintain Oregon’s monitoring of OAH oceanographic metrics and biological response metrics (Actions 1.1.a/c)**
-  **Incorporate OAH into CO<sub>2</sub> management and mitigation discussions in the state (Action 2.1.b)**
-  **Support new initiatives to promote natural ecosystem resilience (Actions 3.2.a/b)**
-  **Keep legislators and policy-makers up-to-date on the science, impacts of and solutions for OAH (Action 4.2.a)**
-  **Develop high-level policy guidance for the state’s government agencies on prioritizing OAH in agency workload (Action 5.1.a)**

**To learn more about the Council, opportunities to engage, or OAH in Oregon, please contact the Council Co-Chairs or the Council staff:**

**Dr. John (Jack) Barth**  
OAH Council Co-Chair  
Jack.Barth@oregonstate.edu

**Dr. Caren Braby**  
OAH Council Co-Chair  
Caren.E.Braby@state.or.us

**Dr. Charlotte R. Whitefield**  
OAH Council Staff  
Charlotte.M.RegulaWhitefield@state.or.us



Oregon Video on  
Ocean Acidification



OAH Council  
Website

*[oregonocean.info/index.php/ocean-acidification](http://oregonocean.info/index.php/ocean-acidification)*