

The Oregon Coordinating Council on Ocean Acidification and Hypoxia



Date: December 12th, 2018

To: The Honorable Michael Dembrow, Chair
Senate Interim Committee on Environment and Natural Resources
Oregon State Legislature

Testimony by Co-Chairs of the
Oregon Coordinating Council on Ocean Acidification and Hypoxia
Dr. Jack Barth and Dr. Caren Braby

Good morning Chair Dembrow and members of the Committee,

As the Co-Chairs of the legislatively created Oregon Coordinating Council on Ocean Acidification and Hypoxia (or “OAH Council”), we appreciate the opportunity to provide you an overview of the purpose and need for the OAH Council, as well as the results of our work over the past year since we first convened.

Background

Oregon’s coastal economies rely on our vibrant marine ecosystem. Our nearshore waters are home to sport and commercial fisheries, all of the State’s mariculture operations, and contain critical nursery grounds for economically important species including rockfish, oysters, salmon, pink shrimp, Dungeness crab, and others.

Oregon is also among the first places in the world to observe direct impacts of ocean acidification and hypoxia (OAH), due to our unique geographic and oceanographic context, putting our fragile marine ecosystem at risk. When CO₂ is absorbed by seawater, chemical reactions occur that lower its pH (making the seawater more acidic), making it more difficult for shell-forming species to build shells and undermining the integrity of the food web. At the same time, oxygen-depletion is on the rise; Oregon has seen several seasons in a row with extended periods of hypoxia in our coastal waters. Ocean acidification and hypoxia are compounding stressors for a wide range of marine animals. Understanding and addressing intensifying OAH conditions here in Oregon is critical to our understanding of larger regional climate change impacts and addressing these impacts with carbon management strategies.

The OAH Council

The Oregon Legislature is leading on facing the challenges of OAH, by passing Senate Bill 1039 in 2017, thus creating the Oregon Coordinating Council on OAH. The mandate for the OAH Council is to develop recommendations and guidance on how to understand, adapt to, and mitigate OAH challenges. The OAH Council began meeting in January 2018, and is comprised of representatives from agencies, academia, stakeholders, Tribes, NGOs, and the Governor’s office. In September 2018, the OAH Council submitted our first biennial report (and [executive summary](#)), which articulates 12 recommendations, and 38 nested actions. The actions span five Thematic Areas (science, mitigation, adaptation and resilience, awareness,

and on-going commitment), and addressing actions in each theme will help Oregon adapt to an uncertain future.

We have presented the OAH Council's recommendations to a variety of groups including the Oregon Global Warming Commission, the Governor's Climate Cabinet, the Oregon Ocean Science Trust, OPAC, the Oregon Tribal Environmental Forum, and highlighted Oregon's leadership at the California Global Climate Action Summit.

OAH Council Recommendations and OAH Action Plan

Over the next several months, the OAH Council will be honing the recommendations from our 2018 report into a strategic Oregon OAH Action Plan as requested by Governor Kate Brown in support of Oregon's membership in the International Alliance to Combat Ocean Acidification. The OAH Action Plan will identify actions that Oregon will implement over the subsequent 4-6 year period. The OAH Council has already identified urgently needed strategic actions, in order to protect the State's economy and environment, which fall into the following areas:

- (1) Monitoring of key oceanographic and biological indicators of impacts from ocean acidification and hypoxia;
- (2) Projects or programs that promote coastal economic and ecosystem resilience to ocean acidification and hypoxia; and
- (3) Tools and strategies to increase awareness of ocean acidification and hypoxia science, impacts and solutions for Oregon.

As Co-Chairs to Oregon's OAH Council, we have taken on the charges set forth in SB1039 with a sense of urgency and importance, knowing that we have the remarkable opportunity to help strengthen Oregon's marine ecosystems and coastal economies that rely on it. Throughout the OAH Council process, we have taken a thoughtful, collaborative, science-based approach to developing our recommendations and encouraging public input and participation. In the coming years, the OAH Council will continue to serve Oregon to provide opportunities for public discourse, as well as make recommendations to the state on future actions that address OAH and related climate issues.

Through further State investments and initiatives, Oregon will continue to serve as a model for others to apply in their own geographical and political context. Only through action will Oregon be able to help demonstrate that local actions are meaningful in fighting the global challenges of climate change.

Thank you for your consideration of these comments and we welcome any questions.

Sincerely,

John Barth, PhD



Executive Director
Marine Studies Initiative
Oregon State University

Caren Braby, PhD



Marine Resources Program Manager
Oregon Department of Fish and Wildlife