Report: Latest Science Updates WA State's Ocean Acidification Plans

State releases 5-year report detailing progress and renewed focus areas

OLYMPIA, Wash. – Today scientists, policymakers, tribes, shellfish growers, agencies and nonprofits released the first update to the state's 2012 strategy to tackle ocean acidification--reporting progress made, new focus areas and a renewed commitment to tackle the issue through a number of research, education and climate mitigation and adaptation solutions.

"Ocean acidification threatens Washington shellfish, fisheries industries, and the coastal communities that depend on them," stated Governor Jay Inslee. "Our state is on the front lines of responding to these threats through the leadership of the Blue Ribbon Panel on Ocean Acidification and the Marine Resources Advisory Council. We must keep up the momentum and leadership and continue to take bold action to protect these resources for future generations."

"Ocean acidification is a progressive and lethal threat to our ancestral waters and the marine life that live there. Crab, geoduck, shrimp, clams and the other foods that have fed our people for thousands of years are at risk. We must act now and pray that it is not too late," said Leonard Forsman, Chairman of the Suquamish Tribe.

In the five years since the Blue Ribbon Panel's 2012 recommendations, there have been significant scientific advances. The Marine Resources Advisory Council (MRAC) saw a need to re-evaluate the 2012 strategy, resulting in this 2017 Addendum to the Blue Ribbon Panel's 2012 report. The Addendum released today is a companion report that expands upon the 2012 work.

Wednesday's report highlighted new research that justifies more concerted efforts to combat ocean acidification, for example:

- Atmospheric CO₂ in the Puget Sound area is increasing faster than along Washington's coast and faster than the global average. Southern Hood Canal shows the highest surface seawater values of pCO₂ in Washington coastal waters.
- Human-generated atmospheric CO₂ is a major source of ocean acidification around Puget Sound and Washington coastal waters.
- Several local species from pteropods to Dungeness crab are showing sensitivity to ocean acidification, suggesting impacts to the entire marine web including salmon and whales.
- Impacts may be more severe in nearshore coastal waters than in offshore open ocean waters, because corrosive conditions are closer to the surface in nearshore coastal waters and in Puget Sound.

A number of the strategies and actions to address ocean acidification were updated and clarified from the recommendations five years ago. Those updated actions fall under six overarching categories:

- 1. Reducing carbon emissions
- 2. Reducing local land-based contributions to ocean acidification
- 3. Increasing our ability to adapt to and remediate the impacts of ocean acidification
- 4. Investing in monitoring and scientific investigations
- 5. Informing, educating and engaging stakeholders, the public and decision makers
- 6. Maintaining a sustainable and coordinated focus on ocean acidification.

The report detailed a number of accomplishments that have been made over the past five years, including:

- Establishing a clean air rule to reduce carbon emissions from large in-state emitters
- Launching an ocean acidification conservation hatchery that serves as a hub for shellfish research and restoration
- Improving our understanding of the role of seagrass and kelp in ameliorating local ocean acidification conditions
- Initiating enhanced and widescale monitoring with real-time sharing through the Northwest Association of Networked Ocean Observing Systems (NANOOS) – to collect data and support shellfish hatchery adaptation practices
- Creating ocean acidification K-12 curricula to increase awareness and literacy among the public

Looking forward, Washington state stakeholders will build upon this strong foundation of ocean acidification research and collaboration, and continue to transform knowledge into action. Washington state is a leader in the ocean acidification conversation at the global level while continuing to act locally, seeking out new opportunities to match local policy and programs with sound science and strong collaboration.

A shellfish farmer, a policy expert, and several scientists also expressed their support of the Addendum through the following statements:

Terrie Klinger, co-director of the Washington Ocean Acidification Center, director, UW School of Marine and Environmental Affairs: "Our understanding of ocean acidification and its consequences for Washington is growing quickly. This report nicely summarizes new scientific evidence and underscores the need to take action on this important issue."

Jay Manning, chair, Puget Sound Leadership Council, co-chair of 2012 Blue Ribbon Panel on Ocean Acidification: "Washington is literally leading the world in addressing the threat of ocean acidification and this update of the Blue Ribbon Panel's Report is another important example of that leadership. If we don't address ocean acidification, we not only put local shellfish at risk, we also can't save salmon or restore Puget Sound. Thank you to Governor Inslee for his leadership on this issue."

Marilyn Sheldon, Northern Oyster Co.: "Many shellfish farmers in Willapa Bay and Grays Harbor appreciate Governor Inslee's efforts to support our valuable coastal fishing industries and one of the oldest and most important agricultural sectors in Washington. The time, research, and collaboration focused on ocean acidification by the Panel and the dedicated members of the Marine Resource Advisory Council will greatly benefit our marine resourcebased communities, and have already helped us understand and adapt to changing environmental and ocean conditions – perhaps the greatest challenges facing the shellfish industry today. We look forward to Governor Inslee's continued leadership and support in the many challenges our industry faces, including the critical need to embrace policy solutions that are both guided by sound science and recognize the importance of our farms to a thriving coastal ecosystem and the sustainability of Washington's natural-resource-based economy."

Jan Newton, UW oceanographer and co-director, Washington Ocean Acidification Center: "As a scientist, it is impressive to see so much leadership in our state and also partnering between individuals from science, policy, industry, and management perspectives. As well, there is strong partnering among scientists. This collaboration, coupled with information sharing via this report, ensures an efficient use of funds and a wise pathway to actions."

Libby Jewett, director, NOAA Ocean Acidification Program: "The updated report reinforces our federal, state and tribal partnership to combat ocean acidification by working together, modifying and expanding on approaches we have developed through ongoing research. For instance, in the new plan, scientists in the state of Washington will be asked not only to test hands-on remediation options which involve cultivating kelp as a way to remove carbon dioxide from local waters but also to explore how to move this seaweed into land agriculture as a way of recycling it."

The <u>Marine Resources Advisory Council</u> is a governor-appointed board responsible for maintaining a sustainable coordinated focus on ocean acidification; advising and working with the Washington Ocean Acidification Center on the effects and sources of ocean acidification; delivering recommendations to the Governor and Legislature on ocean acidification; seeking public and private funding resources to support the Council's recommendations; and assisting in conducting public education activities regarding ocean acidification. The full report can be found at <u>www.OAinWA.org</u>.

For more information, please contact:

Jaime Smith, Office of Governor Jay Inslee, jaime.smith@gov.wa.gov, 360.902.4136 April Leigh, Suquamish Tribe Communications, aleigh@suquamish.nsn.us, 360.394.7102 Marilyn Sheldon, Northern Oyster Co., marilyn@northernoysterco.com, 360.244.9695 Terrie Klinger, co-director, WA Ocean Acidification Center, tklinger@uw.edu Jan Newton, co-director, WA Ocean Acidification Center, jnewton@uw.edu, 206-543-9152 Jay Manning, chair, Puget Sound Leadership Council, co-chair of 2012 Blue Ribbon Panel on Ocean Acidification, jmanning@cascadialaw.com, 360.786.5078 Libby Jewett, director, NOAA Ocean Acidification Program, libby.jewett@noaa.gov, 301.734.1075

Sian Wu, Resource Media, <u>sian@resource-media.org</u>, 206.701.4734