

The First to Act – Washington is acting locally and exchanging knowledge globally to restore the health of our oceans

Our oceans are the cradle of life. They are the planet's workhorse. Their sheer size drives the planet's climate, produces more than half of the oxygen we breathe, and absorbs tens of millions of tons of CO₂ a day as it has since the advent of the Industrial Revolution, making the rest of the planet a more pleasant place to live. Our daily lives, no matter our proximity, are tied directly to oceans – the air we breathe, the food we eat, the rain that falls, the products we use, all come from or are transported by oceans. Here the Pacific Coast waters and Puget Sound are our economic engines, central to our cultural heritage and are places of beauty and respite for the millions who live here. Even at the farthest inland reaches of the watersheds, we are deeply connected with the vast salt water of the state.

But our marine waters are in trouble. The western coastal waters and the southern Salish Sea consistently experience low pH, making the nearshore environment, home to some of our most critical habitats, less hospitable to life. The latest research shows that acidification has gotten worse in our coastal waters over the last five years due to the combined effects of both the global and the local sources of the carbon dioxide that drive the acidification process. The sobering reality of being at the epicenter of one of the most highly affected regions in the world means that marine organisms in Washington state experience some of the highest stress from increasing ocean acidification. Upsetting but true. This imposes on us the responsibility—and the opportunity—to take action.

From small pteropods to shellfish, we see already the foundational threats ocean acidification poses. Alarming, these are only a precursor of what lies ahead if we do not change course. No species, not even our iconic salmon or whales, is beyond the reach of ocean acidification. We can no longer underestimate how this, a fundamental change in ocean conditions, ocean acidification, is changing our way of life. At risk are the very livelihoods of people in our rural, coastal communities, and the iconic natural system which defines so much of who we are as a state, a region, and as Washingtonians.

Plainly put, our way of life in the Pacific Northwest is at risk from ocean acidification. Too many indigenous people, families, businesses and communities, our seafood heritage and culture for so long reliant on the rich diversity of resources found in our marine waters are existentially threatened by this shift in the condition of the marine waters of our state.

In 2017, there is no question about what drives this change. Global and local carbon dioxide (CO₂) emissions, as well as local nutrient sources beyond natural levels, are significantly altering seawater chemistry. We are the cause for the rapid accumulation of 30 to 50 percent of the enriched CO₂ in surface waters in Puget Sound and

20 percent of enriched CO₂ in deep waters off our shores. The world's leading experts – at NOAA, our universities, our tribal agencies, and in our state resource agencies – live and work in our waters. These authorities shoulder to shoulder with the affected industries have made us understand that this is our new reality. We are facing this immediate threat together by taking measures to rein in local land- and air-based nutrient sources and better predicting low pH events in the shorter term. But we also understand fundamentally that decarbonizing our economy, locally, regionally, nationally and globally, is the key to restoring resilience and a recognizable future into the system.

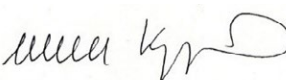
What we've learned underlies a single call – we need to use the progress we've made, take courageous steps forward, and take further action now.

Washington state didn't hesitate as we became the first to lead the world in looking at the threat of ocean acidification to our shellfish industry in 2008. In 2012, through the Blue Ribbon Panel, we created a science-based action plan to better understand the facts in the water and to aid an industry on the verge of collapse. Out of that work, we created the Marine Resources Advisory Council (MRAC) to be a local leader, with global consequences. Over the last five years, MRAC has supported various partners locally, regionally, nationally, and internationally to act.

As changing ocean conditions continue to be the new normal, this broad stakeholder group is focused on deploying science-based management actions to make more resilient the waters that marine life and businesses depend on. While we are focused locally, we're also networked globally to share knowledge and information, encouraging other regions to go from science to action, to follow our lead. With five years under our belts, we are now sharing with you the update to Washington's original ocean acidification action plan, grounded in the latest science and designed to leverage work across the multiple partners that have emerged since 2012.

Washingtonians understand what is so dramatically at stake. We are not standing by waiting for someone else to inform or rescue us. With this update of the Blue Ribbon Panel comprehensive strategy and the ongoing work of MRAC and its partners, we have taken the lead regionally and globally in finding a way forward with science, policy, and most importantly on the ground, in the water, with action. Join us, won't you?

Sincerely,



Martha Kongsgaard

Marine Resources Advisory Council Chair