

# Ocean Acidification

## *Local Action in the Northwest Straits*

*Ocean acidification is a change in seawater chemistry due to the absorption of carbon dioxide. It is a local and global problem; a consequence of man-made carbon emissions. In Puget Sound, shellfish and other living creatures are being impacted, posing a serious threat to cultural, ecological and economic resources -- including jobs in the seafood industry.*

The Northwest Straits Commission is working with experts around the region to promote a better understanding of ocean acidification and potential impacts on local communities. Volunteers with our Marine Resources Committees (MRCs) in seven counties are engaged in local mitigation planning and marine stewardship projects.

In 2013, the Washington State Legislature created a Marine Resources Advisory Council housed in the Office of the Governor, on which the Northwest Straits Commission Chair holds a designated seat. The Council is both advisor and convener, informed by the state's 2012 Blue Ribbon Panel and report<sup>1</sup>. The report recommends 42 actions that include public outreach, managing land-based contributions to ocean acidification, and preserving native eelgrass and kelp populations.

<sup>1</sup>[\*Ocean Acidification: From Knowledge to Action.\*](#)  
Publication no. 12-01-015.



*partners in marine conservation*

### What are we doing to address the issue?

- Presenting relevant information to help generate local ideas and solutions
- Reducing nitrate pollution in runoff, which exacerbates acidification
- Protecting eelgrass and kelp -- natural buffers to rising acidity in seawater
- Restoring and enhancing naturally-occurring Olympia oyster populations throughout their historic range

### Rain Gardens & Phytoremediation

On Ebey's Prairie, the Island County MRC installed a bioswale that percolates runoff through roots and soil to reduce nutrient pollution and remove toxic contaminants from stormwater before it reaches Penn Cove.



*Joe Hillers, former Island MRC vice chair, at the Coupeville bioswale project site*



Rain garden at Port of Anacortes facility in Skagit County

The Skagit MRC worked with the Port of Anacortes to install a rain garden to treat roof runoff and provide a model for people to learn about this technique.

On a popular street corner two blocks from the ferry in Friday Harbor, the San Juan MRC installed a rain garden to filter and divert polluted stormwater runoff. And the Jefferson MRC worked with local partners to install two rain gardens in Port Townsend's historic Uptown neighborhood.

### **Knowledge Exchange**

The Northwest Straits Commission hosts free public seminars to bring research and policy experts together with community members and decision-makers. In 2014, Ocean Health forums were held Everett and Port Townsend; similar events will be held in Skagit and Island counties in 2015. Expert presentations and other resources are on our [Ocean Acidification webpage](#).

### **Eelgrass Protection**

Along the busy waterfront of Port Townsend, the Jefferson MRC is expanding the “*Anchor Out for Eelgrass*” zone, successfully preventing recreational boaters from damaging this critical shallow-water habitat. The boating community is not affected and this great volunteer project consistently holds a 95% compliance rate.

### **Kelp Recovery**

The Commission and MRCs in Island, Jefferson, Skagit, Whatcom, and Snohomish counties are initiating surveys of floating kelp beds at threat from declining water quality and other stressors. Field interpretation of our new survey protocol began in 2014. In support for these and other kelp recovery efforts, the Commission launched the Salish Sea International Kelp Alliance, with a transboundary workshop planned in 2015.

### **Olympia Oyster Restoration**

The Northwest Straits Commission and the Clallam, Jefferson, Skagit and Whatcom MRCs have engaged in a variety of Olympia oyster restoration projects. In Skagit County, outplanted oysters are now reproducing.

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