

**NOAA FISHERIES**Office of Aquaculture
Office of Habitat

Implementation of the National Shellfish Initiative

Recent Accomplishments

In 2011, NOAA launched the National Shellfish Initiative to increase numbers of shellfish in our nation's coastal waters for commercial and restoration purposes, stimulating coastal economies and improving ecosystem health. Inspired by the national effort, Washington State launched the first regional Shellfish Initiative in December 2011 to restore and expand Washington's shellfish resources, to promote clean-water industries and create jobs. The initiatives have resulted in several outcomes to date:

Washington Shellfish Initiative Accomplishments

The Kenneth K. Chew Center for Shellfish Research and Restoration at NOAA's Northwest Fisheries Science Center's Manchester Lab was officially opened on May 22, 2014. The construction of the lab was funded through partnerships between NOAA Fisheries, the Puget Sound Restoration Fund, the State of Washington, and the University of Washington. The facility will establish a hatchery breeding program for native Olympia oysters to increase and improve restoration efforts in Puget Sound. The facility will also be used for restoration of other native species in decline such as the pinto abalone. Scientists will also study the effects of ocean acidification on these animals.

NOAA Fisheries is working with state, federal and tribal partners to develop a consistent process to improve timeliness of shellfish aquaculture permit decisions while ensuring regulatory compliance. The Shellfish Interagency Permitting team has reviewed commercial and restoration activities resulting in several new projects receiving permits.

In 2011, the State of Washington convened an Ocean Acidification Blue Ribbon Panel consisting of tribal, state, federal and local policy makers; scientific experts; public opinion leaders; and industry representatives. The panel has focused on understanding the science behind and effects of ocean acidification and recommending responsive actions. The State has provided funding to the University of Washington to set up a center for ocean acidification research and monitoring and enacted a 2013 bill creating the Washington Marine Resources Advisory Council to continue the Panel's work and deliver recommendations to the Governor on Ocean Acidification.

Oyster Habitat Monitoring and Assessment Handbook

The NOAA Restoration Center, in collaboration with the Nature Conservancy, University of Southern Alabama and Florida Atlantic University, has developed an oyster restoration monitoring and assessment handbook that identifies preferred metrics and protocols to increase consistency in evaluating the performance of oyster reef restoration. The handbook includes "universal metrics" that measure basic project performance and should be monitored for all restoration projects, plus guidance on additional metrics depending on a project's particular ecosystem service goals (e.g., fish habitat creation, shoreline/marsh protection). This guidance will enable the comparison of restoration projects within and across regions, tidal elevations, and construction types, and provide valuation information towards adaptive management of restored reefs.

Offshore Mussel Culture

The first shellfish aquaculture project permitted in federal waters off the U.S. east coast is expected to begin operating 2015. Scientists and fishermen are partnering on this project to grow blue mussels within a 30-acre area in Nantucket Sound. They hope to create new jobs in the region and satisfy consumer demand for local seafood, without posing risks to vulnerable marine life such as whales and sea turtles. NOAA Fisheries supported research in New Hampshire, Rhode Island and Massachusetts to test the technology for this project. Scientists found that mussels grow rapidly and have a high survival rate using this technology. For the current project, the New England District of the U.S. Army Corps of Engineers authorized installation of the structures needed to grow the mussels. NOAA Fisheries provided technical advice to the Corps, during the project design, to help minimize risks to whales, sea turtles and other marine life.

Streamlining Shellfish Aquaculture Permitting

The Interagency Working Group on Aquaculture Regulatory Task Force, in collaboration with the National Ocean Council and the White House Office of Science and Technology Policy, is developing a framework to streamline federal agency review of shellfish aquaculture permitting. The regulatory task force developed a shellfish permitting fact sheet to provide a common reference for federal agency staff working on permitting of commercial shellfish aquaculture. This is the first of several planned efforts to improve the regulatory efficiency for commercial aquaculture.

California Shellfish Initiative

Initial steps towards developing a California Shellfish Initiative are being taken by stakeholders including NOAA, the State of California, the Pacific Coast Shellfish Growers Association (representing the commercial shellfish industry), and shellfish restoration groups, Sea Grant Extension, using the Washington State Shellfish Initiative as a model. A kick-off meeting was held in September 2013 and a series of meetings are planned for 2015. The Initiative will focus on Humboldt and Tomales Bay for commercial shellfish aquaculture and San Francisco Bay for restoration.

Outlook---Potential New State Shellfish Initiatives

The Washington Shellfish Initiative has been very successful in bringing together government agencies, tribes, stakeholders, and academic institutes under a common goal. Other states are taking notice and are in the early stages of developing Shellfish Initiatives of their own. Connecticut has a new shellfish initiative coordinated by the University of Connecticut. Efforts are also underway in Oregon and the Gulf of Mexico.