

Washington Ocean Acidification Center

Narrator: The ocean absorbs excess carbon dioxide from the atmosphere. The CO₂ causes the seawater to become more acidic – more corrosive. That, in turn, can damage or kill developing shellfish.

Bill Dewey: The shellfish industry here in Washington State supports about 3,200 jobs and generates about 270 million dollars in economic activity annually.

Narrator: Saving the shellfish industry fueled political support for doing something about carbon emissions and acidification. Support at the state level ...

Jan Newton: We've been very successful with those two offshore buoys...

Narrator: And in Washington, D.C.

Newton: ... because it tells the nearshore growers when ocean acidification events are coming.

Senator Cantwell: To me, this is about information that we now can acquire about the ocean.

Narrator: In 2013 the Washington legislature appropriated 1.8 million dollars to establish the Washington Ocean Acidification Center at the University of Washington, co-directed by Jan Newton of the Applied Physics Laboratory.

Newton: What we will be doing is focusing on the issue of ocean acidification. Understanding the science behind it, the impact on biological organisms.

Dewey: The Ocean Acidification Center at the UW is a very exciting development for the industry.

Narrator: An industry that depends on salt water.

Benoit Eudeline: I could do the math here...

Narrator: A LOT of salt water.

Eudeline: We would probably use...maybe a hundred thousand gallons.

Narrator: A hundred thousand gallons a day.

Dewey: The water that comes from Puget Sound — if it's not right, we're out of business.

Narrator: The new center will work with many partners on and off campus.

Zdenka Willis: We have developed the observing and monitoring locally with NANOOS. NANOOS is partnered with APL. So what the center does is allow us to really have that connection right here in the region. The center can help us advance that science.

Dewey: The highest priority immediately is helping us learn how to better monitor the water and then how to adapt when we get this corrosive water coming our way. Either how we can dodge it. Or if we can't, how we treat it and we adapt to it.

Newton: We have some real-time buoys in Puget Sound... The one that's in Dabob Bay, which is near one of our major shellfish hatcheries – Taylor Shellfish – we are going to be outfitting with NOAA's PMEL ocean acidification sensors for PCO₂ and PH and these will be in a very robust manner so those data can be transmitted through NANOOS's web portal and through the IOOS system to give people a glimpse of the data in real time.

Narrator: New data coordinated and mobilized by the new Washington Ocean Acidification Center.

Newton: Ocean acidification is a problem we're going to be living with for generations.

This is APL **The Applied Physics Laboratory at the University of Washington in Seattle.**