

### NORTHWEST ASSOCIATION OF NETWORKED OCEAN OBSERVING SYSTEMS (NANOOS)

The eye on the Pacific Northwest's ocean and coast

66 NANOOS provides critical life safety information to the public, aiding coastal communities to reduce risk. ??

> – Jonathan Allan, Coastal Geomorphologist Oregon Department of Geology and Mineral Industries



**NANOOS** is the Regional Association of the national Integrated Ocean Observing System (IOOS) in the Pacific Northwest, primarily Washington and Oregon. Investments in NANOOS have resulted in high-technology jobs, better-informed decisions, and new innovation.

# We help improve:



Decision-making to protect human health





Enabling preparedness and security

Preserving economic benefits of the ocean



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**IOOS** in the Pacific Northwest



#### NANOOS Increases Efficiency

The **NANOOS Visualization System** (NVS) integrates data from a wide variety of sources, and makes that data available in one online data portal, saving substantial time and money. Real-time observations and forecasts from a range of assets including buoys, shore and tidal stations, high-frequency radar, wave and current forecasts, and satellites are available in user-friendly data displays. NVS provides sophisticated yet accessible capabilities such as comparisons of forecasts with real-time observations, and customized presentations based on community feedback.



### Benefits for People and Businesses in the Pacific Northwest

#### Innovative Technology for Safe & Profitable Resource Use



NANOOS detects toxins from harmful algal blooms (HABs) from an undersea robot at La Push.

"Having the NANOOS automated HAB sampler, with toxin assessment capability, offshore between our harvest beaches and the HAB generation sites will give tribes the forewarning they need to adjust sampling protocols and better protect the health of coastal residents, tribal and non-tribal."

- Joe Schumacker, Department of Fisheries, Quinault Indian Nation

NANOOS partners with industry to develop a lower cost sensor for effective shellfish growing.

"This current generation of shellfish farmer is reliant upon data and services from NANOOS. Checking the NANOOS app before seeding a beach or filling a settling tank has become standard practice."

- Margaret Barrette, Director, Pacific Coast Shellfish Growers Association

#### Support for Maritime Operations, Safety & Fishing Commerce

"Ships crossing the Columbia River Bar face one of the most dangerous harbor entrances in the world. The Columbia River Bar Pilots rely on weather forecasts, real time buoy data along with wave and current models when determining safe times for ships to cross the bar. NANOOS provides an excellent location for us to see and compare all the available data sources."

– Captain Dan Jordan, Columbia River Bar Pilots

"NANOOS addresses a critical gap in recreational boater safety. Too many safety incidents on Pacific Northwest waters happen to pleasure boaters who make poorly informed decisions about if, when, how, and where weather may impact their safety. Sadly, many don't know how to access marine weather information freely available to them. NANOOS provides easy access weather information and routing tools to support better decision making by recreational boaters. I'm confident it will help save lives."

- Captain Margaret Pommert, National Association of Safe Boating Law Administration



#### Information for Coastal Hazard Risk Reduction



NANOOS data are used by the Oregon Department of Geology and Mineral Industries (DOGAMI) for coastal flood hazard maps; together NANOOS and DOGAMI provide tsunami hazard evacuation information to coastal populations. Both products aid risk reduction and increase coastal preparedness.

NANOOS support has "...provided us with invaluable information concerning our ongoing erosion problems. Without such assistance, we are operating blind."

– Mayor Crystal Dingler, City of Ocean Shores

"The Oregon Office of Emergency Management (OEM) appreciates the tools that NANOOS provides. The online tsunami evacuation route viewer is especially useful in helping coastal residents and visitors understand and respond to the tsunami hazards."

- Althea Rizzo, Coordinator, Oregon OEM Geologic Hazards Program



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#### For More Information

Contact us if you have any questions, or to learn more about our program: Jan Newton, NANOOS Executive Director Tel: (206) 543-9152 | janewton@uw.edu