THE NATIONAL ESTUARINE RESEARCH RESERVE OBSERVATIONS PIPELINE: IMPROVING COASTAL MANAGEMENT WITH ASSESSMENTS, CAPABILITY, AND DELIVERY

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ABSTRACT

The National Oceanic and Atmospheric Administration's (NOAA) National Estuarine Research Reserve System (NERRS) is a network of 27 estuarine and coastal protected areas that are designated for long-term research, monitoring, education and stewardship. The NERRS is a strong contributor to the Integrated Ocean Observing System (IOOS) through its System-wide Monitoring Program (SWMP) which combines real-time estuarine water and weather quality measurements with complementary terrestrial and open water observations. NERRS real-time data dissemination, integration and application efforts have developed significantly over the past three years and are now used in a suite of applications and derived products that support both current and future coastal management decision making. Highlighted products supported by the NERRS dataset include: coastal assessments and early warning notices related to episodic events such as harmful algal blooms and inundation, adjustments in mariculture operations by local commercial oyster growers, and the development of training modules that enhance coastal and ocean literacy. The NERRS provides a framework for how systematic research and monitoring efforts that are well integrated with management needs can inform and provide timely scientific data to a diverse group of users who have direct impact on coastal resource management decisions.

KEY WORDS

Monitoring, NERRS, Estuaries, IOOS, Water Quality