5 Missions of National Estuarine Research Reserve System

“Living laboratories” focus on issues important to coastal communities

Overview

The National Estuarine Research Reserve System (NERRS) is a growing network of 29 sensitive coastal areas across 23 states and Puerto Rico. Congress established the system in the early 1970s, as part of the Coastal Zone Management Act, to protect and facilitate the study of our nation’s estuaries. The National Oceanic and Atmospheric Administration (NOAA) works in partnership with coastal states to administer and manage the overall system and specific sites.

NERRS guidelines call for reserve sites across 29 distinct biogeographical subregions along the U.S. coasts and Great Lakes. Governors submit letters of interest regarding prospective sites to NOAA, and if the agency approves moving forward, the state leads a public process to nominate the site and develop its management plan. Once the Secretary of Commerce—who oversees NOAA—designates a reserve, it generally meets these five missions, all intended to support the understanding and conservation of the system, and of all U.S. estuaries.

Public Education

NERRS sites serve as living outdoor classrooms for students, teachers, and the public.

The Elkhorn Slough NERR in central California developed the Estuary Explorers Club to educate students from the local elementary school about coastal habitats.

Monitoring

Staff members at each NERRS site collect data on issues ranging from water quality to habitat. These data are shared with other experts to help assess and manage U.S. estuaries nationwide.

College intern Kanoelani Lizama monitors conditions at the South Slough, Oregon, NERRS site.
Stewardship

Programs at NERRS sites foster an understanding of the importance of conserving the sites and responsibly managing coastal areas.

A participant in “Teen Paddle,” a weeklong canoeing expedition for high school students, steers along the Patuxent River, within the Chesapeake Bay, Maryland, NERRS site.

Research

NERRS sites serve as living laboratories for studying climate change, invasive species, storms, and more.

Georgia Institute of Technology research scientist Max Kolton at work at the Sapelo Island, Georgia, NERRS site. Kolton hopes to discover insights into ways salt marshes can be restored.

Training

Researchers and educators use NERRS sites to develop curricula on issues important to coastal management.

A staff member at the San Francisco Bay NERR Estuary and Ocean Science Center trains community members to determine the accurate boundaries of protected wetlands.