

Waquoit Bay Research Reserve Education is Change on the Ground

2017

Connect



3,000 acres of land and water
4,560 people participated in programs
Visitor Center exhibits



Prepare

62 teachers trained
2862 K-12 students engaged
69 college students engaged

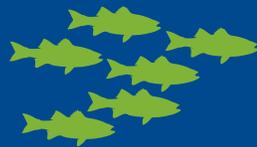
Improve



42 education volunteers
Over 1,000 education volunteer hours

"This course was well worth the time invested. The information and activities were easily incorporated into the classroom. Students were able to see how real time data is gathered and reported when we visited the NOAA website."

*Elementary teacher
Cape Cod, MA*



"I am motivated to be a better steward of the environment and to bringing the knowledge I have gained to my students to interest them in being stewards, as well."

*Elementary teacher
Cape Cod, MA*

"Thank you for showing us the Waquoit Bay. I had an amazing time. After the tour I now kind of want to be a scientist."
Grace, 5th grader, Barnstable, MA



Partnerships Link Tribe, Reserve and Community

Reserve staff joined members of the Wampanoag tribe to offer programs that connect Wampanoag culture and history with estuary science. Grade three-five STREAMSS (Science, Technology, Reading, Engineering, Art, Math, Social Studies) teachers explored the bay and Wampanoag traditions through the Teachers on the Estuary and the Wampanoag Circle of Life workshop. The Preserving Our Heritage summer program allowed Wampanoag middle school students to soak up traditional and scientific knowledge from tribal elders and reserve scientists and educators. During the school year, Reserve educators worked with the tribe's Indian Education Coordinator to engage primary students in the afterschool program to build their science literacy.

Students Study Shoreline

Reserve staff conducts lessons for twelve eighth grade classes at a public STEM Academy that reflects the Reserve's work and incorporates the topics of ocean currents, weather and climate change. NOAA's Digital Coast and a local on-line mapping tool help students investigate potential impacts and consider the vulnerability of critical structures and their own neighborhoods. During field studies, students measure the beach and estimate future tide levels based on climate change predictions for our area. Student understanding of these concepts is critical in this community where severe coastal erosion, exacerbated by the redirection of sediment from the 100 year old Cape Cod Canal is an on-going and contentious issue.

Are You Ready for the Next Big Storm?

The Reserve teamed with local organizations to offer the workshop "Are You Ready for the Next Big Storm? A Workshop for Hardy Cape Codders". Local experts raised awareness about coastal impacts in the face of sea level rise, how to make your home more resilient during power outages, food security, and local municipal actions.

Waquoit Bay NERR is one of 29 sites in the National Estuarine Research Reserve System. Each site is a state federal partnership that combines research, monitoring, and education to advance the understanding and management of estuarine environments.



WAQUOIT BAY
NATIONAL
ESTUARINE
RESEARCH
RESERVE



National Estuarine Research Reserve Education Change on the Ground in 2017

Connects

People to Estuaries

**1 million+
ACRES**

of natural classrooms & living laboratories with



**28 INTERPRETIVE
CENTERS**



**650,340
VISITORS**

learn about estuaries through Research Reserve outreach & education



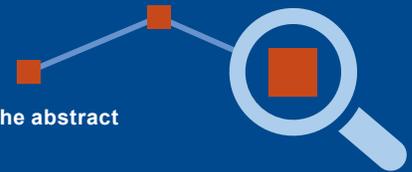
Aloha to our Hawai'i Reserve, designated in 2017!

Prepares

the Next Generation

**87,899
STUDENTS**

take learning out of the abstract & into the outdoors



**3,079
TEACHERS**

are trained in the estuary & supported in the classroom



SKILLS BUILT

- ✓ Observation
- ✓ Asking research questions
- ✓ Problem solving
- ✓ Data driven decision making

ESTUARY SCIENCE

LOCAL DATA

LAB WORK

FIELD INVESTIGATION

Improves

the Environment

**12,849
CITIZENS**

are trained & inspired to protect their coasts & estuaries



VOLUNTEER ACTIONS

- ✓ Protect wildlife
- ✓ Monitor water quality
- ✓ Plant native species
- ✓ Clean up the coasts

**28 RESEARCH RESERVE
EDUCATORS**

lead programs that foster coastal stewardship in communities in 23 states



Creating value through education
39,035 volunteer hours = \$942,305*