Great Bay
National Estuarine Research Reserve

Location: 15 miles from the ocean, near the New Hampshire and Maine border

Date Designated: 1989

Area Protected: 10,235 acres

Web Address: *greatbay.org*

Management: Daily oversight is provided by the New Hampshire Fish and Game Department, Marine Fisheries Division. NOAA's Office for Coastal Management provides funding, national guidance, and technical assistance.

Access and Infrastructure

- The education headquarters is located in the Great Bay Discovery Center in Greenland, New Hampshire, and features interpretive exhibits. Another education facility, the Hugh Gregg Coastal Conservation Center, provides valuable meeting space and exhibits.

- A trail and boardwalk allow visitors to explore a variety of habitats, including upland hardwood forests, freshwater wetlands, salt marsh, and mudflats.

- Visitors can stand on the deck of a 19th century gundalow replica, which is a colonial-era vessel, explore a replica Native American camp, or wander through native gardens. Birders enjoy opportunities to see Great Bay's wintering eagle population, migratory warblers, waterfowl, and nesting pairs of osprey. The reserve also provides a number of boat launching sites.

- A community wildlife demonstration area shows homeowners how they can maintain a beautiful landscape that supports native wildlife and plants.

The **Great Bay National Estuarine Research Reserve** is a complex embayment and New Hampshire's largest estuarine system, encompassing all of Great Bay and Little Bay, as well as the tidal portions of five major river systems: Bellamy, Oyster, Lamprey, Squamscott, and Winnicut. This site is considered an "inland" estuary, since it is about 15 miles removed from the ocean.

The Great Bay reserve includes diverse land and water areas, including upland forest, salt marsh, mudflat, tidal creek, rocky intertidal, eelgrass, and upland field habitats. The bay's cultural heritage is equally diverse, from Paleo-Indian villages dating back 6,000 years to colonial transportation and industrial use, as well as a proposed oil refinery in 1973.

NOAA Office for Coastal Management

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Interesting Things to Know

- The reserve is a refuge for 23 species of threatened or endangered animals and plants.

- Colonial settlers along these shorelines established saltwater farms where they harvested salt hay. The gundalow was a flat-bottomed vessel built to transport goods across estuarine waters.

- The reserve's Hugh Gregg Coastal Conservation Center includes a life-size diorama that depicts how the land was shaped by Native Americans and early settlers. Artifacts with a focus on hunting and fishing are housed in a special collections room.

- Goat Island is the largest island and has a rich history. A cultural trail brings people to the old Piscataqua Bridge abutments and the remains of a tavern and stables.

About the Programs

The nation's 30 research reserves represent a tremendous asset, protecting nearly 1.4 million acres and providing habitat where plants and wildlife thrive. Community benefits include recreation, flood protection, and water filtration. Because the following programs are offered at each reserve, the system is able to make an environmental impact at the local level, as well as nationally.

Stewardship. Site protection and enhancement are part of every research reserve. Activities may include managing land and water resources, restoring habitat, controlling invasive species, maintaining biodiversity, and reducing environmental stressors. The reserve uses cutting-edge habitat mapping and modeling to strategically protect and restore coastal wetlands.

Research. Reserve research is focused on how environmental factors—such as nutrient loading, climate change, invasive species, and storms—impact coastal ecosystems. The System-Wide Monitoring Program, or SWMP, provides long-term data on water quality, weather, biological communities, habitat, and land-use and land-cover characteristics. This combination of research and data provides a strong, science-based foundation for addressing coastal management challenges.

Training. To provide the community with the information and skills needed to integrate coastal science into local decision-making and everyday lives, reserves provide specialized courses and information. Reserve training professionals are active in community planning and improvement initiatives.

Education. Local data generated at the reserve provide students with a firsthand experience of local environmental conditions. Educators lead student, teacher, and citizen field trips that are life-changing experiences, as participants see, feel, and smell what makes an estuary one of the most remarkable places in the world.

To learn more, visit coast.noaa.gov/nerrs.

Office for Coastal Management