

Gulf of Maine Coastal Program

Great Bay and Hampton Harbor: identifying and protecting important habitats

The Great Bay and Hampton Harbor estuaries, located in coastal New Hampshire, provide important habitat for fish and wildlife. Great Bay provides wintering habitat for black ducks, bald eagles and many other species. Great Bay sustains runs of striped bass, shad, alewife, herring, smelt and salmon and shelters commercially important species such as lobster, clam, oysters, flounder, tomcod and pollock. Likewise, Hampton Harbor's 5,000 acres of contiguous salt marsh provide vital habitat for birds, fish and shellfish and offer the most popular location in the state for recreational shellfish harvesting.

Both Great Bay and Hampton Harbor have high natural resource value and Great Bay has a relatively low level of human impact. However, between 1960 - 1990, the population rose 72 - 300% in the neighboring towns. Although the pace of growth has slowed, current projections suggest that this seacoast region will continue to be threatened with pressures of increasing development.

In order to protect vital fish and wildlife habitat in the region, the U.S. Fish and Wildlife Service's (USFWS) Gulf of Maine Coastal Program, in cooperation with the Gulf of Maine Council on the Marine Environment, identified and mapped high value coastal and estuarine fish and wildlife habitat in the Great Bay and Hampton Harbor watersheds. Concurrently, Great Bay National Wildlife Refuge identified important fish and wildlife habitat, with a focus on freshwater and inland species in the region. With biologists working in close coordination, information gleaned from both efforts will be used by a variety of agencies, town planners and non-governmental conservation partners to identify priority areas for land protection.

USFWS biologists corresponded with biologists and decision-makers from state and local organizations to select 26 plants and animals representing a cross-section of ecologically and economically important species in the region. Where precise and complete field surveys were available, habitat was mapped from existing data. However, when scientifically verified sightings were insufficient to fully represent areas used by the species, habitat suitability profiles were developed by identifying and mapping environmental requirements of each species. Next biologists ranked relative habitat values for each species, based on habitat scarcity, intensity of use and the quality of environmental conditions. Once habitat for each species was identified, biologists created a summary map highlighting important habitat for all species studied.

The final reports and maps from the Gulf of Maine Program and Great Bay National Wildlife Refuge are catalyzing voluntary on-the-ground habitat protection efforts in the Great Bay and Hampton Harbor watersheds through partnerships with interested individuals, land trusts, conservation commissions, water quality monitoring groups, statewide conservation organizations and state and federal agencies. Results have been integrated into the *Great Bay Resource Protection Partnership Habitat Protection Plan* and have been used in acquiring habitat protection funds through the federal North American Waterfowl Management Plan. Great Bay National Estuarine Research Reserve has used the analysis to generate support to expand its boundaries. The New Hampshire Estuaries Project is also using the habitat data to complete a build-out analysis for coastal New Hampshire that will be available through GRANIT, the state's spatial database distribution center.

Contact the Gulf of Maine Program for "Important Habitats of Coastal New Hampshire," a technical report which includes maps of important habitats, or find it on our Internet home page.



For further information, please contact:

U.S. Fish and Wildlife Service
Gulf of Maine Coastal Program
4R Fundy Road
Falmouth, Maine 04105
(207) 781-8364
FAX (207) 781-8369
fw5es_gomp@fws.gov
<http://gulfofmaine.fws.gov>
Project Leader, Stewart Fefer

