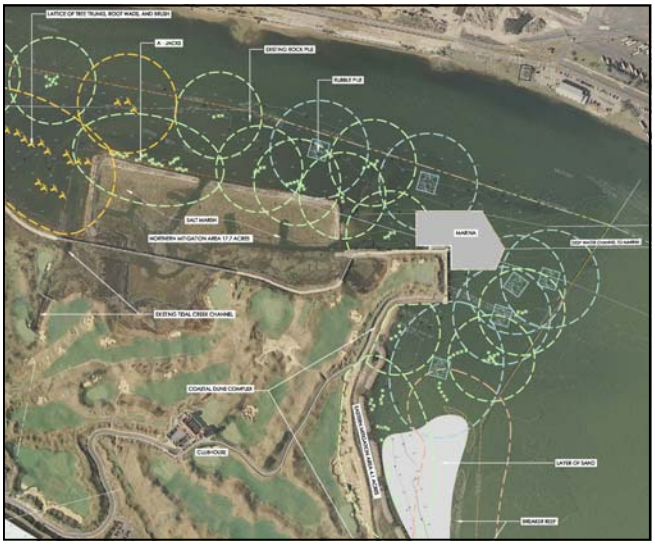
Constable Hook Marine Preserve
Estuarine Habitat Mitigation Bank

Bayonne Golf Club

Bayonne, NJ



Princeton Hydro has a prominent role in developing New Jersey's first estuarine shallow water mitigation bank. To partially off-set centuries of over-exploitation, water quality impairment, and habitat degradation, as well as provide a source of credits to permittees who trigger regulatory mitigation needs in the Hudson—Raritan Estuary (HRE), the first phase of the planned Constable Hook Marine Preserve will integrate over twenty acres of existing coastal marsh, as well as coastal dune complex with approximately sixty acres of enhanced intertidal—subtidal habitat. Subsequent project phases ultimately may expand the Preserve to more than three hundred acres.

For years, Princeton Hydro has overseen wetland habitat mitigation at the world-class Bayonne Golf Club site. The existing coastal wetland mitigation areas have developed into prime examples of ecological uplift possibility in an urban setting; a public access promenade is the focus for bird-watchers and recreational fishermen who enjoy the area.

Presently, submerged areas at the site generally lack structural complexity as well as connectivity to other estuarine settings. Through additions of strategically-placed materials and objects, we expect to improve habitat conditions suitable for a varied assemblage of marine invertebrates, fish, water-birds, and other animals.

Moreover, the Constable Hook Marine Preserve project dove-tails with a majority of Target Ecosystem Characteristic (TEC) elements identified in the 2009 release of the HRE Comprehensive Restoration Plan issued by the United States Army Corps of Engineers and a consortium of resource trustees and leading estuarine scientists who were directed to develop a long-term approach and tangible goals for restoring HRE ecosystem services and functions.

The project design emphasizes creation, enhancement, and interconnection of a mosaic of submerged, wetland, and terrestrial habitat types, especially habitat types suitable for use by species that are habitat-limited.