

North Atlantic Region

The Park Service successfully terminated New York City's operation of the Fountain Avenue Landfill within Gateway NRA as of Dec. 31, 1985. Studies by

our Rutgers CRU are now being formulated to ensure that adequate final closure is carried out to protect the Jamaica Bay ecosystem and to allow safe recreational use of the site. This site will provide Gateway with long-term revenues from a methane gas extraction project being conducted jointly with the City.

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A report entitled "Geomorphic Analysis, Fire Island Inlet to Montauk Point, Long Island, NY" and edited by S.P. Leatherman and J.R. Allen has been completed. This comprehensive synthesis of field studies, funded by the Corps of Engineers, New York District, was conducted over the past six years through NARO. The 375-page study presents details of the geophysical interpretation, morphologic analysis, quantitative shoreline and environmental change,

geochronology, sedimentology, and stratigraphy of this barrier island/upland coast, and includes a review of expected impacts from proposed Corps of Engineers erosion control and hurricane protection schemes.

The Long Island barrier chain does not follow the "rollover" model, but is dominated by inlets – with a longshore spit extension forcing a westward migration of historically permanent Fire Island Inlet on the western end of the chain and the breaching by storms at 50- to 75-year intervals on the eastern end, as well as the intervening inlets providing bayside sedimentation for the barrier substrate. Thus, the west is axially stable but narrowing, while the east is rapidly transgressive with wide marshes and a migration rate of one island width in the last 300 years. The subaerial portion of the barrier chain is comprised of a thin, but locally complex, veneer of aeolian sands overlying a continuous overwash wedge.

As a result of these studies, Fire Island NS is now the subject of one of the most detailed geomorphic data banks on barrier islands in the world.

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In September 1985, Hurricane Gloria, with winds up to 90 mph, swept over Fire Island NS. The effect of this disturbance on the Sunken Forest – a maritime forest community – will be studied this summer by Dr. Henry Art of Williams College, Massachusetts.