

As a member of the Hunter College community and the United States Army Corps of Engineers, I have been working with my colleagues to document, determine and repair the damages to the NY beaches and barrier islands. Our initial mission is to aid NY State and Suffolk County in designing breach closure procedures and cost estimates.

Hurricane Sandy battered the coastline for several tidal cycles producing severe flooding of coastal communities and erosion for many NY and NJ beaches. The prolonged storm surge and waves in excess of 25 ft breached the NY barrier island system in 3 locations (Figure 1). Two of the breaches, located within Suffolk County park lands will be closed immediately to prevent any unanticipated flooding of bayside communities. The breach within the Fire Island National Seashore will remain open and be monitored extensively to determine the effects of barrier island breaches on circulation and water quality in Great South Bay.

The barrier islands also experienced overwashing, where dunes were wiped out and splayed across roads and wetlands in extensive fan deposits (Figure 2). In some of the more vulnerable washover regions, the elevations of the barrier islands remain a few feet above sea level. Without a protective dune, these locations may be susceptible to breaching during the 2012-2013 winter storm season which has just begun.

The pictures within this document were taken by myself, both on the ground and from the air during a three day reconnaissance mission.

Sincerely,

Frank Buonaiuto

Associate Professor, Hunter College



Breach 1: Wilderness Area, Fire Island National Seashore, 11-2-2012



Breach 2: Smiths Point County Park, Fire Island, 11-2-2012



Breach 3: Cupsogue County Park, Dune Road, 11-2-2012



Breach 3: Cupsogue County Park, Ground Photo, 11-1-2012



Overwash: Tiana Beach, Dune Road, Ground Photo 11-1-2012



Overwash: Tiana Beach, Dune Road, Ground Photo 11-1-2012



Overwash: Tiana Beach, Dune Road, 11-2-2012



Overwash: Smiths Point County Park, 11-2-2012