

Beach Nourishment Monitoring

Beaches along the Atlantic Ocean and Raritan Bay, New Jersey



A piping plover adult in Sea Bright, New Jersey

Large volumes of sand were swept off of New Jersey beaches when Hurricane Sandy made landfall in 2012. As a result, the ecological and recreational values of these sand-starved beaches were compromised. Without the addition of more sand, the beaches would remain unable to guard against future storm surges and be unsuitable for recreation.

No exception, the stretch of

beaches along the Raritan Bay and Atlantic Ocean, from Keansburg to Ashbury Park, suffered significant losses of sand, and a series of beach nourishment projects were undertaken during the summer of 2013. However, this area is also a known nesting habitat for a number of threatened bird species, including the black skimmer (*Rynchops niger*), least tern (*Sternula antillarum*), roseate tern (*Sterna dougallii*), and the Federally endangered

Biohabitats ensured that Hurricane Sandy-related beach nourishment projects were conducted without harm to threatened bird and plant species.

piping plover (*Charadrius melodus*). The Federally endangered plant, seabeach amaranth (*Amaranthus pumilus*), has also been found in the area. For these reasons, Biohabitats was called on to monitor bird and plant species of concern for the duration of beach renourishment activities.

Before dredging began, Biohabitats conducted a baseline bird and plant survey in order to note the species and populations present and suggest minimally-invasive locations for the dredging pipe and equipment. Even though no seabeach amaranth was found within the project area prior to the start of dredging activity, Biohabitats continued to scrupulously monitor

the beach for new growth throughout the duration of the project, providing a weekly presence or absence assessment to the client.

Throughout the piping plover and least tern nesting periods, Biohabitats closely monitored bird presence and behavior to ensure that the dredging project did not interfere with the birds in any way, especially with regard to the chicks' ability to fledge. In Monmouth Beach, approximately 40 least tern chicks successfully fledged in 2013. Notably, the only two piping plover chicks to fledge in Sea Bright in 2013 did so under Biohabitats' careful watch.

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800.220.0919

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