Restoring barrier beach dynamics to the Breezy Point Tip, Rockaway, New York: A Habitat Manipulation Experiment.

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Management of the Breezy Point Tip



Protected zones include saltmarshes, primary dunes, freshwater marshes, and waterbird nesting sites. Access is highly restricted in these areas, especially during the nesting season from March – August. Human activities are limited to walking the beach and fishing at the Tip.

Other areas such as the Surf Club and Jacob Riis Park are managed as recreational areas. Swimming, wading, and other beach activities are permitted.

Breezy Point is new land: developed after a jetty was built on the western tip of the Rockaway Peninsula in the early 1930's.

The beach profile is slowly shifting away from the conditions of seasonal contrasts and producing adjustments to the natural variations in the beach profile.

The updrift compartment of the jetty is full, so rather than sand accumulating and shifting the profile seaward, the profile is building in elevation (Psuty 2005)

Gateway NRA GIS; 1911_34uscgs.mxd, June, 2004 mkm

Due to the effects of the Jetty and the absence of significant coastal storm events, American Beachgrass has become very dense and has extended over much of the beachfront.

Proposed Project

To restore a beach profile, by removal of vegetation, which will allow for the natural scouring of the shoreline during overwash events.

Anticipated Outcomes Establishing more natural habitat conditions

Provide habitat for a diversity of wildlife, including threatened and endangered species that inhabit and /or feed along the beach strand.

Additional Benefits

May reduce conflicts between human access and habitat management and sensitive species protection.

Proposed action is in accordance with NPS Management Policies (2001) which state:

"Impacts to natural systems resulting from human disturbances include the introduction of exotic species, changes to hydrologic patterns and sediment transport; acceleration of erosion and sedimentation; and the disruption of natural processes. The Service will seek to return human-disturbed areas to the natural conditions and processes characteristic of the ecological zone in which the damaged resources are situated."

PROCESS

Established a Cooperative Agreement with St. John's University and developed a summary report on the issues at Breezy Point.

Using the St. John's University document as the primary resource document, NPS is evaluating the issue and proposed action through the Environmental Assessment Process. (National Environmental Policy Act)

Identified Alternatives

No Action Removal of Jetty Removal of Vegetation (beach profile management) vegetation removal using a combination of bulldozing, rhizome removal and beach raking

Next Steps

Finalize EA (include beach profile data and final project design)

Internal Park and Regional Review Other Agency Review and Permitting Public Involvement

Project Implementation Winter 2005/6 3 year post monitoring Evaluations and options for adaptive management

Contributors

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