Report Period	July 1, 2015 – December 31, 2016	
Report Due	January 30, 2016	
Summary		

This is an interim progress report to the Service Project Officer for the project entitled Analysis of Piping Plovers/Other Beach-Dependent Species taking place on Fire Island in New York. Under the agreement, Virginia Tech will provide:

- 1. intensive field work west of Old Inlet in the Federal Wilderness Area, Fire Island National Seashore, thereby greatly increasing the range of habitat conditions that can be assessed for resiliency under both natural processes and coastal stabilization;
- 2. fine and course scaled collection of habitat data for expansion and scaling of the sea level rise (SLR) modeling to Long Island; and
- 3. data on migratory shorebird habitat use concurrent with the early part of the hurricane season (June 1<sup>st</sup> through August 15<sup>th</sup>) and piping plover breeding season on Long Island, including an assessment of the use of piping plovers as a surrogate species for beach habitat conservation.

## 1. Progress on goals and objectives

- 1. Piping plover brood monitoring was conducted July 1, 2015 August 2015
- 2. Since October 2014, we have also contributed for a second year to a large-scale study of piping plover habitat use along the Atlantic Coast of the United States, led by the US Geological Survey and Virginia Tech. As part of this study, which is investigating habitat use and the impacts of sea-level rise on piping plovers, we used the mobile smartphone application "iPlover" to characterize the geomorphic setting, vegetation type and density, and substrate type at nesting locations and at random locations throughout Fire Island. During the 2015 breeding season, we contributed 55 iPlover points, which were added to the 44 points collected in 2014. These data are currently being used in conjunction with points from 61 other sites along the Atlantic Coast to train a Bayesian network, which will be used to answer questions such as (i) whether region specific differences exist in piping plover nesting preferences and (ii) where areas of high habitat suitability exist now and in the future with ongoing sea level rise. Lidar and aerial photography flown by Virginia Tech this year are also currently being analyzed in support of research to answer (ii).
- 3. Shorebird surveys were conducted July 1, 2015 September 28, 2015.

## 2. Barriers to meeting goals and objectives

Piping plover monitoring in the Wilderness Area and shorebird surveys were completed as planned.

## 3. Other pertinent information relevant to project results

Number of veterans hired: 0 Number of youth hired: 3

Our annual report for the 2015 field will be provided after undergoing review by sponsors.