Kiawah Island Post Storm Beach Report

Hurricane Matthew

Prepared by Jim Jordan, Wildlife Biologist

October 11, 2016

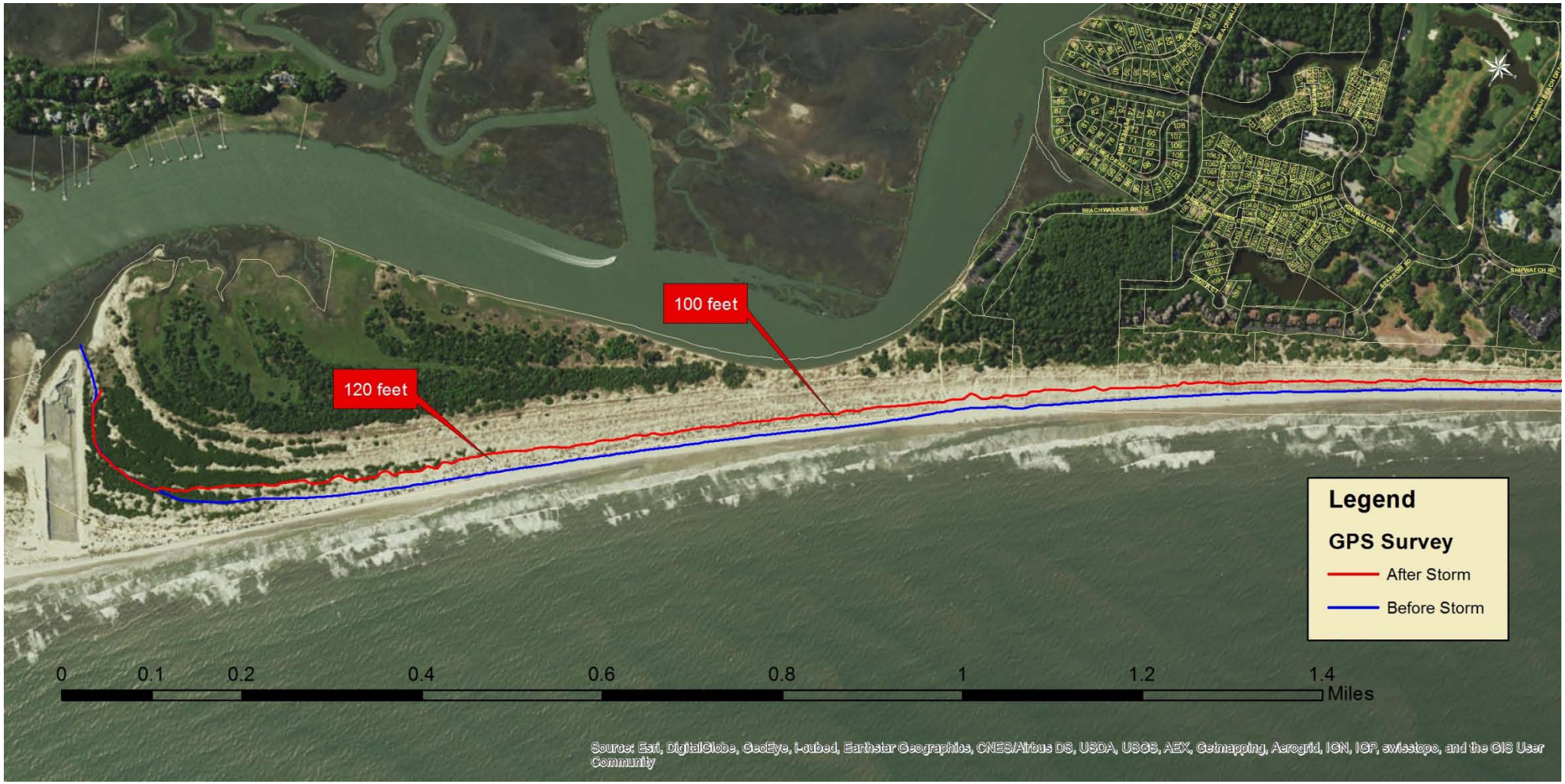
Town Staff conducted a GPS survey of the dune line before and after Hurricane Matthew. The pre-storm survey was conducted on October 5 and the post-storm survey was conducted on October 10. Surveys were conducted using a survey grade GPS with submeter accuracy. Overall, Kiawah's beach suffered extensive erosion but no homes were impacted by erosion. Beach walkovers sustained significant damage and all walkovers will require inspection and repairs.

Kiawah's extensive dune system performed its role exactly as it should have. The role of dunes is to sacrifice themselves to protect inland areas. This is exactly what occurred. Beaches are extremely resilient and eroded sand will slowly make its way back up onto our beaches and dunes will begin to rebuild naturally.

Erosion maps and descriptions for each of 6 beach sections are provided on the following pages.

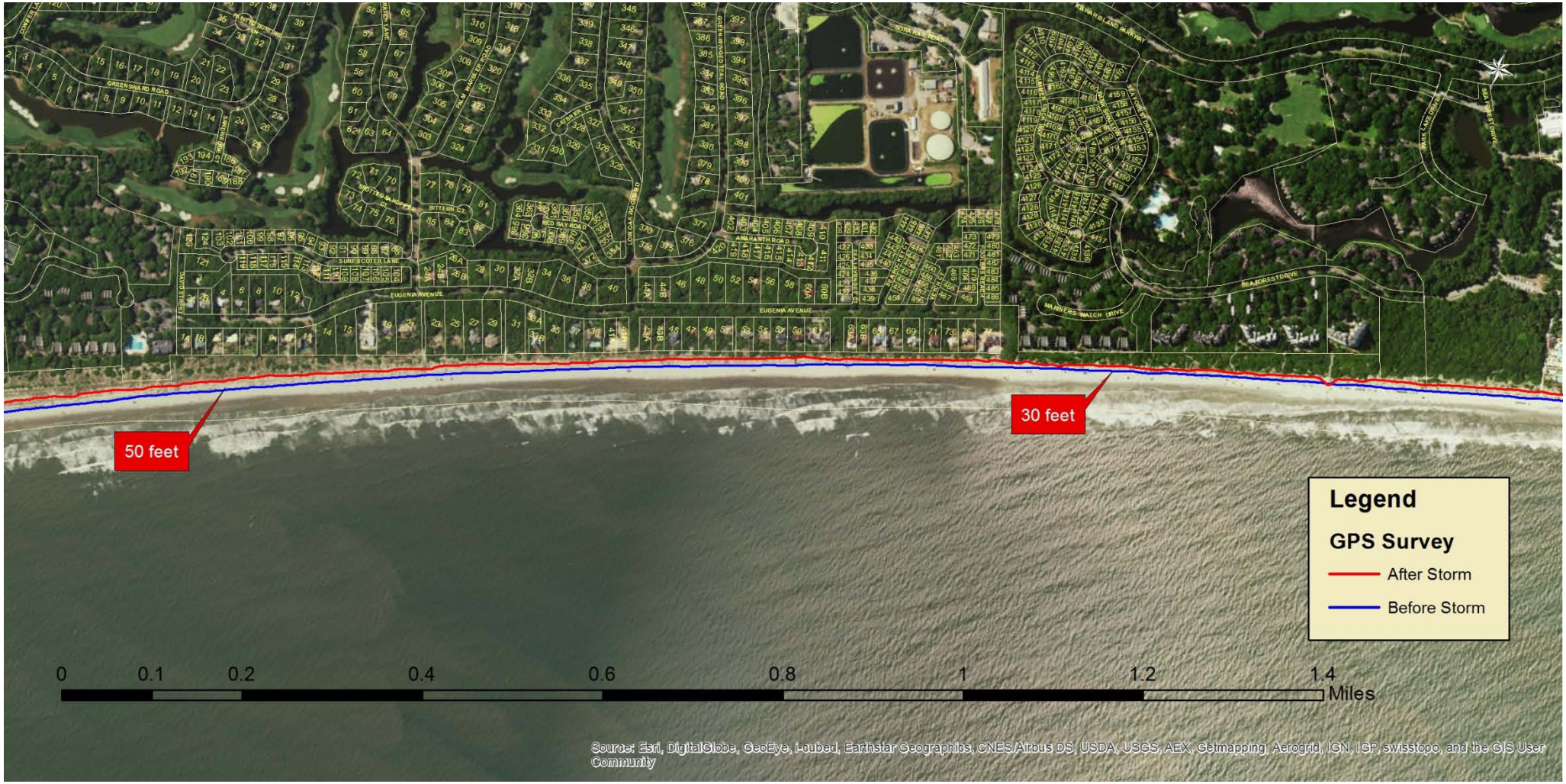
Captain Sam's Inlet to Beachwalker County Park

This area sustained 70-120 feet of erosion. The primary and secondary dunes were completely destroyed. There are no structures or boardwalks in this area.



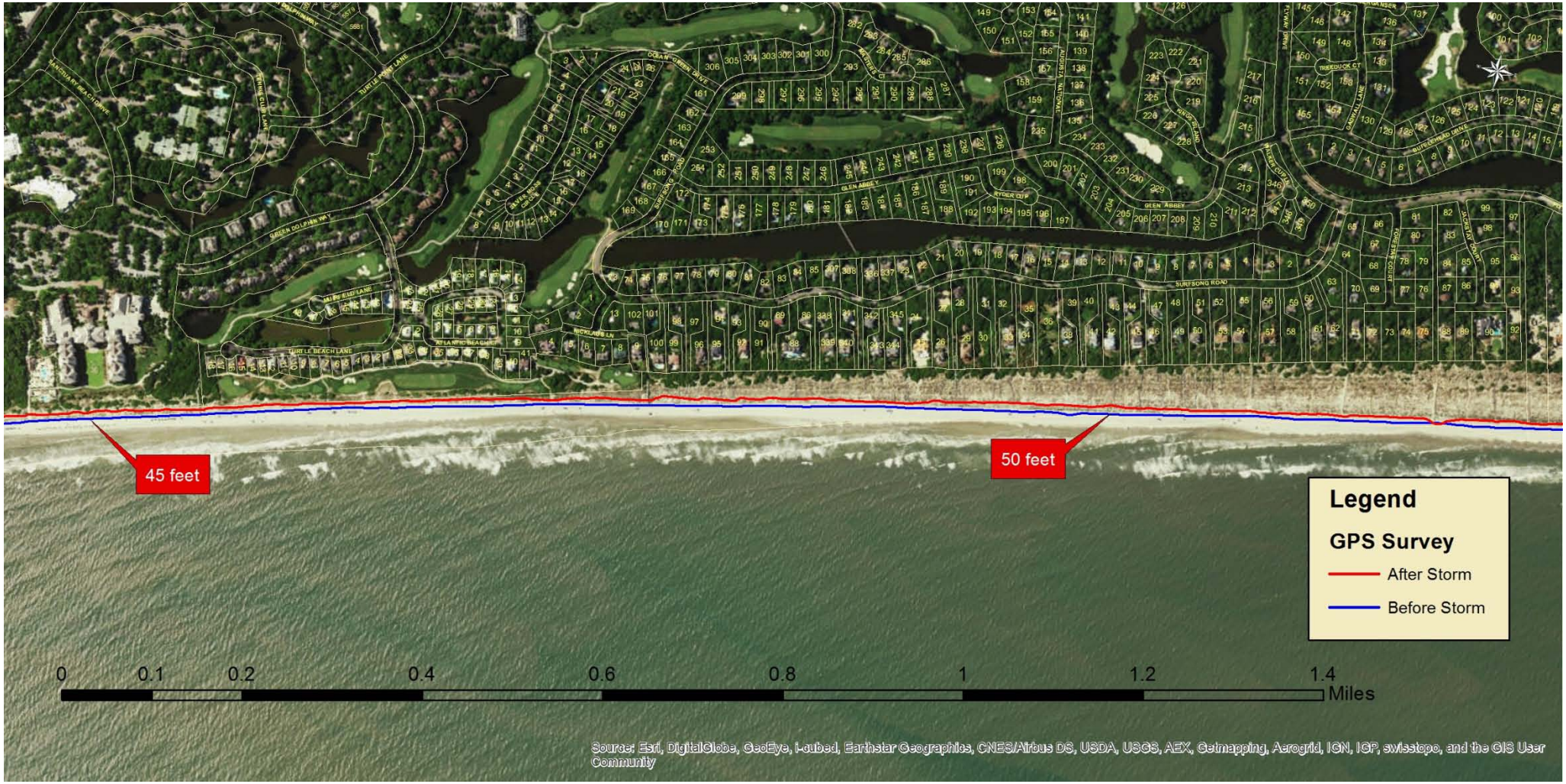
Beachwalker County Park to The Sanctuary

This area sustained 30-50 feet of erosion. Highest rates were seen near West Beach and the western portion of Eugenia Avenue.



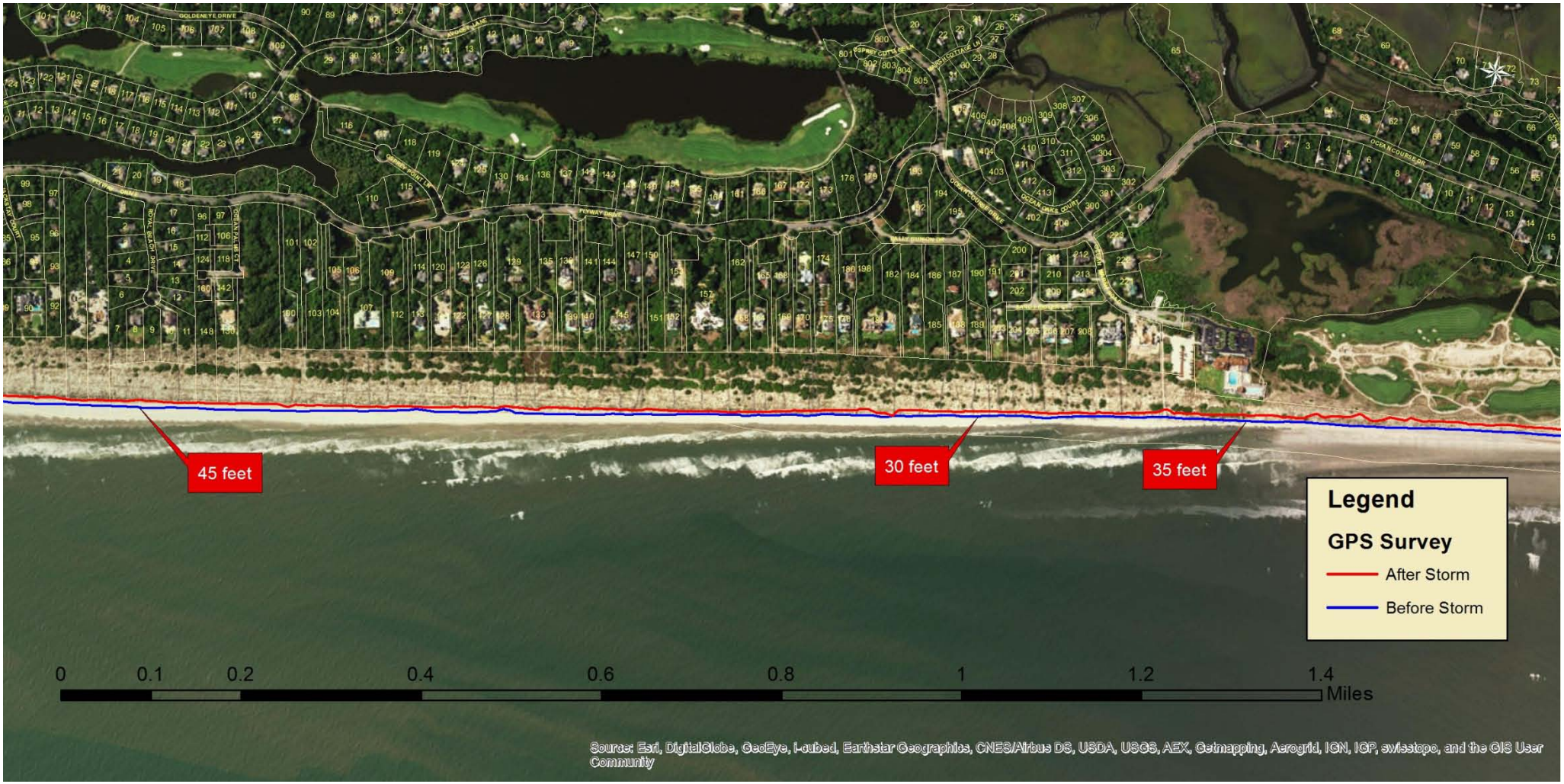
The Sanctuary to Jackstay Court

This area sustained 30-50 feet of erosion. Erosion rates were fairly uniform in this section, with the lowest rates adjacent to the eastern end of Surfsong Road.



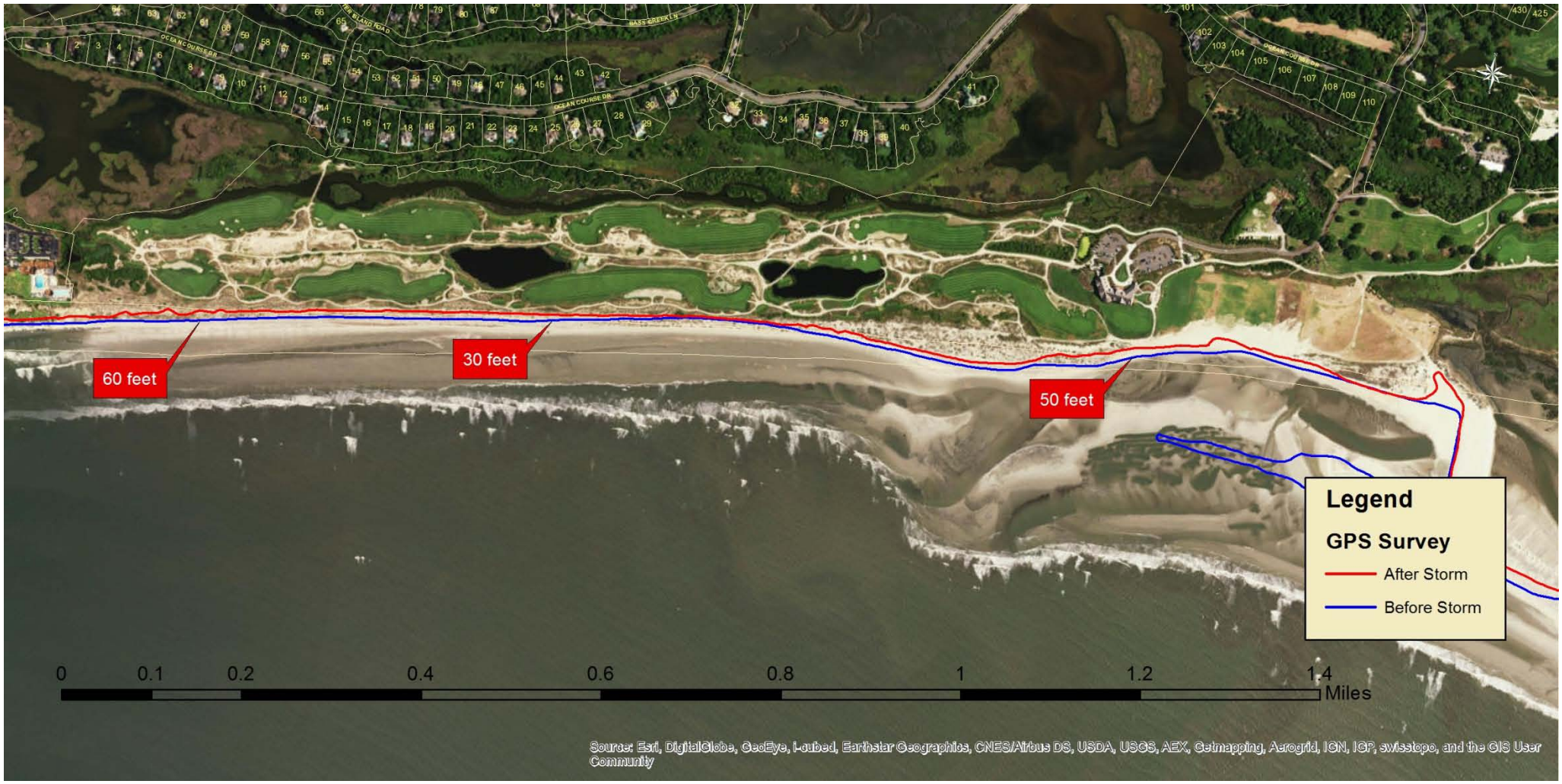
Jackstay Court to The Beach Club

This area sustained 25-45 feet of erosion. Highest rates were seen adjacent to Ocean Palms.



The Beach Club to Ocean Course Clubhouse

This area sustained 10-60 feet of erosion. Highest rates were seen just east of the Beach Club and adjacent to the Ocean Course Clubhouse.



Ocean Course Clubhouse to New Inlet

This area sustained 10-220 feet of erosion. Sand fencing installed after the East End project was damaged but most remains in place. The new dike constructed during the East End Project was not breached and remains intact. The outer beach dune ridge directly in front of the Ocean Course Driving Range was completely destroyed. This will have a positive long-term benefit since it will allow waves to push additional sand directly onto the beach adjacent to the driving range and clubhouse.