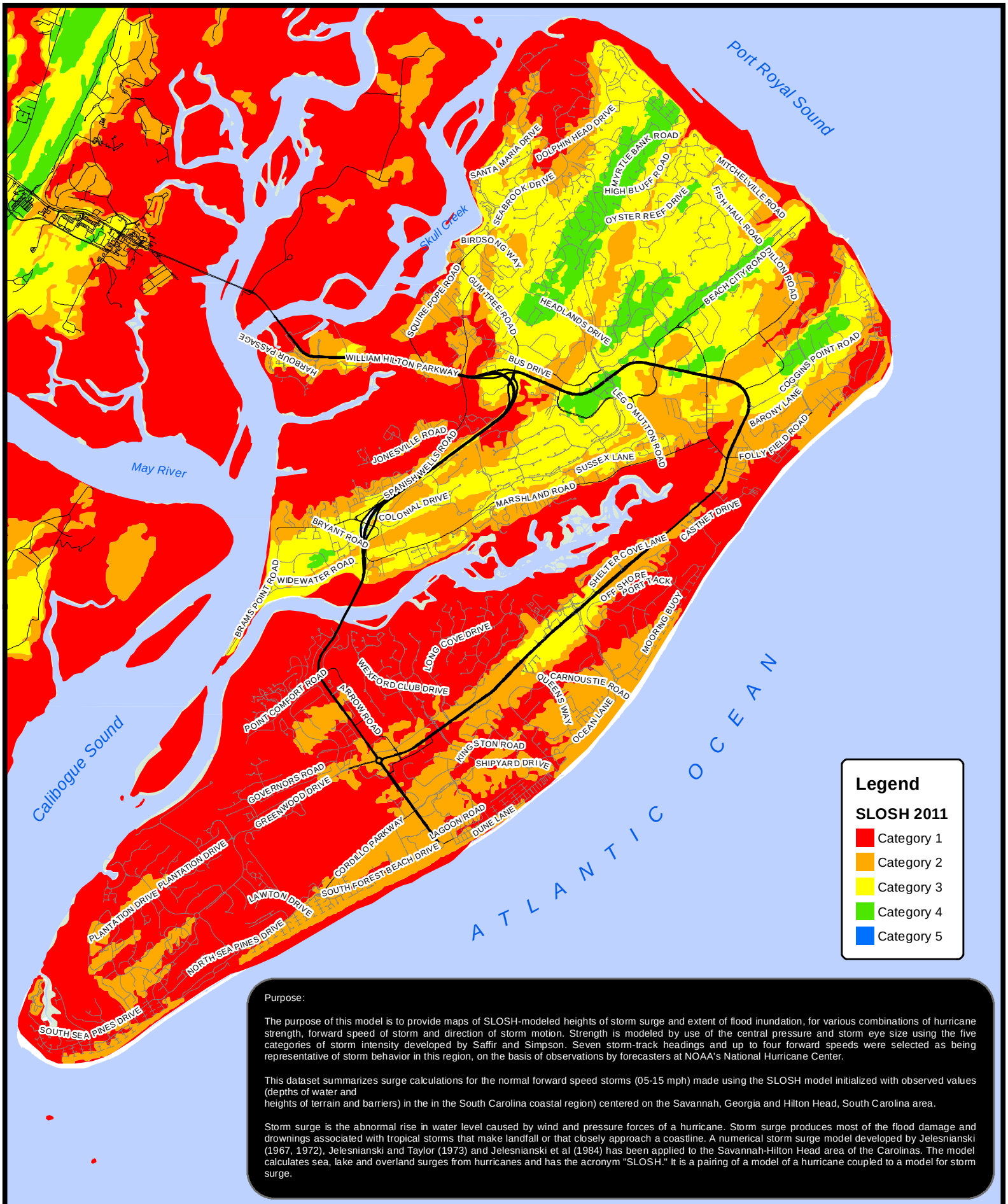

Purpose:

The purpose of this model is to provide maps of SLOSH-modeled heights of storm surge and extent of flood inundation, for various combinations of hurricane strength, forward speed of storm and direction of storm motion. Strength is modeled by use of the central pressure and storm eye size using the five categories of storm intensity developed by Saffir and Simpson. Seven storm-track headings and up to four forward speeds were selected as being representative of storm behavior in this region, on the basis of observations by forecasters at NOAA's National Hurricane Center.

This dataset summarizes surge calculations for the normal forward speed storms (05-15 mph) made using the SLOSH model initialized with observed values (depths of water and
heights of terrain and barriers) in the in the South Carolina coastal region) centered on the Savannah, Georgia and Hilton Head, South Carolina area.

Storm surge is the abnormal rise in water level caused by wind and pressure forces of a hurricane. Storm surge produces most of the flood damage and drownings associated with tropical storms that make landfall or that closely approach a coastline. A numerical storm surge model developed by Jelesnianski (1967, 1972), Jelesnianski and Taylor (1973) and Jelesnianski et al (1984) has been applied to the Savannah-Hilton Head area of the Carolinas. The model calculates sea, lake and overland surges from hurricanes and has the acronym "SLOSH." It is a pairing of a model of a hurricane coupled to a model for storm surge.

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Project - StormSurgeMap_8x11

Town of Hilton Head Island

Hurricane Storm Surge Areas

Source Data: 2011 SLOSH Model

0.5 0.25 0 0.5 Miles

1 inch = 6,917 feet

N W E S

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