



SOUTHWEST FLORIDA REGIONAL PLANNING COUNCIL

1926 VICTORIA AVENUE

FORT MYERS, FL 33901

PHONE: (239) 338-2550 FAX: (239) 338-2560

Sea Level Rise Mapping

The study area for the region is divided into uplands (433 square miles/277,050 acres) and wetlands (915 square miles/585,766 acres) below 10 feet in elevation, which only exist in the four coastal counties (1,348 total square miles/862,816 acres). This area below 10 feet subject to sea level rise impacts is 22.4 percent of the total region's land area. Existing land use data is used to determine wetlands and uplands. Land elevations, future land use local government comprehensive plans, county critical facilities emergency mitigation plans and assumptions regarding development rights are used to determine sea level rise protection scenarios. A current population of approximately 607,000 people lives in 357,000 dwelling units. Millions of square feet of commercial, office and other uses are within the study area. This area is expected to be essentially built-out in the next 50 years with a population level of people.

Assuming no protection measures against sea level rise, upland areas can be expected to experience vegetation changes, higher hurricane storm surges causing greater flood damages to private and public property, salt water intrusion to public and private wells, and higher flood insurance elevation levels, cost and expanding coverage areas. Assuming protection measures are implemented in developed areas wetland impacts are expected to be significant because of two factors. Sedimentation accommodation space for wetland vegetation that cannot keep pace with accelerating sea level rise and lack of wetland migration space due to wetlands being squeezed between the rising sea and the upland protective structures. Essentially most of the regions developed natural shorelines will be replaced with various types of human created barriers to hold back the sea with a resultant decline of estuarine productivity.