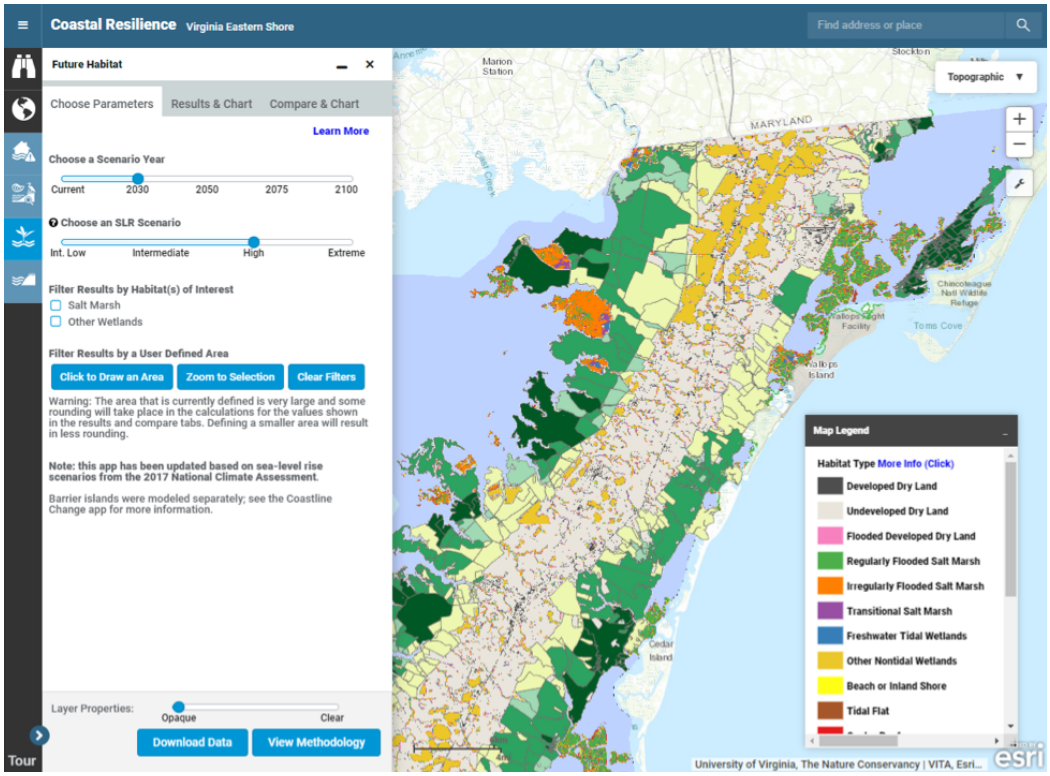
Mid-Atlantic Coastal Resilience Planning and Web Tools



Location:
Accomack County, Wallops and Chincoteague Islands, Virginia

Contracting Party:
National Fish and Wildlife Foundation (NFWF)

Project Dates:
February 2015 – March 2017

Services Provided:

- Multi-disciplinary Project Leadership
- Stakeholder Engagement
- Subject Matter Expertise Hydrodynamic Modeling
- Climate Change Risk Assessment
- Green-Gray Infrastructure
- Geographic Information Systems (GIS) Mapping
- Multi-Sector Analysis
- Underserved Community Focus
- Scenario-Based Approaches
- Trainings and Reports

Key Outcome:
Created a GIS-based online decision support tool to visualize the impacts of sea-level rise and vulnerability to storm surge and to identify risk-reduction solutions, including using nature-based options; conducted training for local communities.

Project Summary:
The key project goal was to develop a GIS-based scenario tool to help communities along the Virginia coast understand and solve challenges of sea level rise and storms on their coast and towns. GIS data combined with hydrodynamic models and ecological data were used to develop sea-level rise and storm surge scenario assessments. The resulting interactive tool was designed to enable communities, planners and government officials craft risk reduction resilience strategies that also incorporated ecosystem restoration. The program consisted of a stakeholder engagement approach that included envisioning, community based risk assessments, development of a web mapping tool, and training a network of practitioners. The tool supports resilience, hazard mitigation and climate change adaptation strategies. The specific project focused on rural, and frequently underserved communities along the Virginia coast in Accomack County, including Wallops and Chincoteague Islands. The project was implemented with funding from the National Fish and Wildlife Foundation's (NFWF) Hurricane Sandy Coastal Resilience Fund, and our efforts were in partnership with The Nature Conservancy (TNC) & the National Aeronautics and Space Administration (NASA)

The coastal resilience program, using the GIS webtool that we helped to develop, has since expanded to encompass 17 coastal states, as well as parts of Mexico, Central America, the Caribbean, Australia, and Indonesia.

The tool can be found online at: https://maps.coastalresilience.org/virginia.