

Preparing for Sea Level Rise Scenarios in the Sarasota Bay NEP Region

Sara Kane ¹ and Barbara Lausche ²

¹Sarasota Bay Estuary Program, Sarasota, FL ²Marine Policy Institute, Mote Marine Laboratory, Sarasota, FL

Objective

Develop a sea level rise (SLR) visualization tool that supports long-range planning for sea level rise scenarios in Sarasota Bay.

Methods

Two components were completed in 2011:

Component 1: Technical workshops, discussion groups, and other outreach activities to test and introduce a SLR web visualization tool to community leaders and the public.

Component 2: Development of an interactive SLR web visualization tool that is site specific to Sarasota Bay. The latest digitized LiDAR elevation data from Sarasota and Manatee counties was used to show different scenarios of local SLR, with and without storm surge. The SLR viewer has sector data available on three areas: parks/protected areas, coastal natural habitats, and major stormwater drainage systems/canals.

Background:

- Coordinated with local government GIS departments, EPA Climate Ready Estuaries program and NOAA Coastal Services center.
- Created project team for SLR viewer development.
- Studied other NOAA/USGS web visualization tools.
- Tested SLR viewer with SBEP Citizens Advisory Committee, Technical Advisory Committee, Management Board, Policy Board, and Mote Marine Laboratory staff.
- Tested SLR viewer with focus groups and selected community leaders.
- Screened SLR viewer with key policy leaders.
- Screened SLR viewer with Manatee and Sarasota County resource managers.
- Posted SLR viewer on the SBEP website.
- Engaged community with King High Tide project.



Sarasota Bay Estuary Program is one of 28 National Estuary Programs in the United States

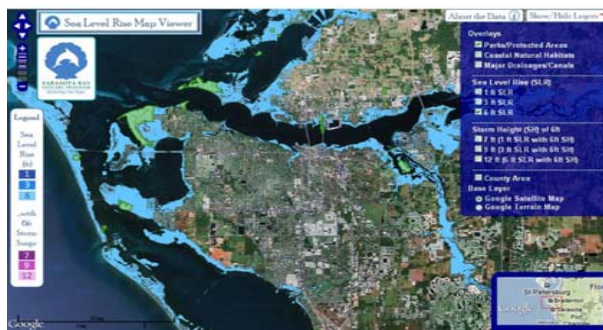
Results

- Successful creation of SLR visualization tool.
- SLR tool is available on the SBEP website.
- Local planners are already using this tool.
- Currently monitoring visits to the SLR tool.

SLR web visualization tool



Parks/Protected Areas, Coastal Natural Habitats, Major Drainages/Canals



Parks/Protected Areas with 6 feet SLR



Parks/Protected Areas with 6 feet SLR and 6 feet Storm Surge

SLR awareness photo campaign



South Lido Key bayside kayak launch at low tide and king high tide



Sarasota Bay downtown waterfront at low tide and king high tide

Conclusions

- Identified sites of greatest vulnerability as priorities for long-range adaptation planning.
- Continue reaching out to the public including special interest groups regarding the SLR tool and related issues.
- Continue to collaborate with key organizations and partners.
- Anticipate divergent view points regarding SLR scenarios.
- Encourage community discussions of future economic impact of changing conditions.

