

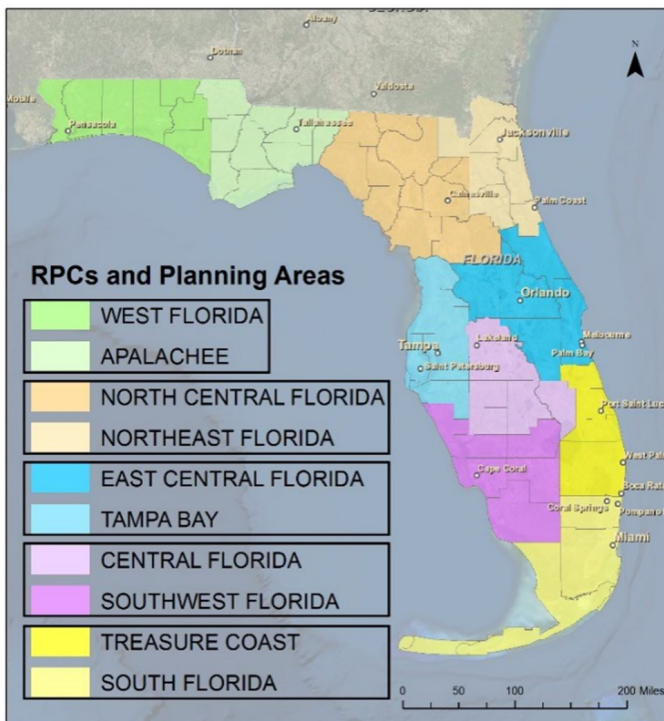


**18 months - 10 Regional Planning Councils – 4 Tools – 1 Cohesive Resilience Plan
Building Capacity through Technical Assistance and Outreach**

This pamphlet provides guidance on organizing and implementing regional trainings and facilitating community vulnerability assessments.

PROJECT OVERVIEW

This project promotes the translation of science to policy and risk preparedness in Florida communities by increasing understanding of, access to, and utilization of a range of existing tools. Projected sea level rise (SLR) impacts threaten to exacerbate the vulnerability of Florida’s at-risk coastal resources. Adapting to and mitigating sea level rise impacts will require that it be incorporated into all levels of hazard mitigation and land use planning in Florida. The Florida Department of Economic Opportunity (DEO), in partnership with the South Florida Regional Council, University of Florida (UF), and National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management will undertake a Training of Trainers intervention that will increase local capacity to project, assess, and respond to sea-level rise throughout the ten regional planning.



PROJECT GOALS

This project will enhance understanding of coastal vulnerability by increasing Regional Planning Councils’ capacity to train and provide technical assistance regarding the use of coastal flood hazard tools and associated vulnerability assessment techniques. This project will work with regional planning councils and local governments to increase their understanding and use of coastal flooding assessment tools and to inform and lead their constituents in coastal adaptation.





SUMMARY OF THE TRAINING EVENT

The process of setting up the statewide training required preparation and communication. The group was lucky enough to have Heidi Stiller from NOAA as a facilitator. On frequent phone calls, Heidi walked the organizers through setting up the training using a process agenda and planning all of the components of the training to meet the needs of the participants. This required several calls, email communication, and a survey to measure what the unique needs each region were. In addition to diversity in Florida's regions, there was a diverse group of representatives. Some of the participants had more of a geographic information systems (GIS) and mapping background, while others had emergency management or environmental planning backgrounds. Therefore, it was important to have very broad introduction that touched upon all of these topics in relation to coastal resilience.

Process Agenda

A process agenda is a detailed agenda that can be used to facilitate the design of a meeting or workshop. Creating a process agenda helps organizers think through the details and the objectives of a meeting.

For more information, please see NOAA's Introduction to Planning and Facilitating Effective Meetings at <https://coast.noaa.gov/digitalcoast/publications/effective-meetings>

The event took place in Orlando on March 30-31, 2016. It began with everyone participating in introductions. Next, the concepts about coastal flooding, mapping, adaptation action areas, adaptation planning ideas, and sea level rise risks were introduced. The United States Army Corps of Engineers (USACE) sea level rise calculator was demonstrated. Once everyone was on the same page, there was an introduction about each of the tools. Next, there was a session to go over the needs and objectives for each region. This turned into an informal conversation in which everyone felt comfortable sharing their concerns and which directions they wanted

to go in. The tools café was a popular component in which the group broke out into different tables where tools were being demonstrated further. Finally, participants were instructed to get into groups based on planning areas and to flesh out their plans for regional trainings and vulnerability assessments. Towards the end of the training, a presentation was given on adult learning that outlined tips on how to engage participants to learn about and apply tools at the regional trainings.

ROLES OF PARTICIPANTS

Participants were asked to attend the event and develop a vulnerability assessment and training modules for their area based on the tools presented at the training. Their next step is to facilitate local trainings in their planning area and present tailored modules and have the participants at the regional training conduct a vulnerability assessment using a tool or tools which are appropriate. Document progress and share their feedback and lessons learned from the trainings.



Tool Web Address

NOAA CanVis

coast.noaa.gov/digitalcoast/tools/canvis

NOAA Sea-Level Rise Viewer

coast.noaa.gov/digitalcoast/tools/slr/

NOAA Coastal Flood Exposure Mapper

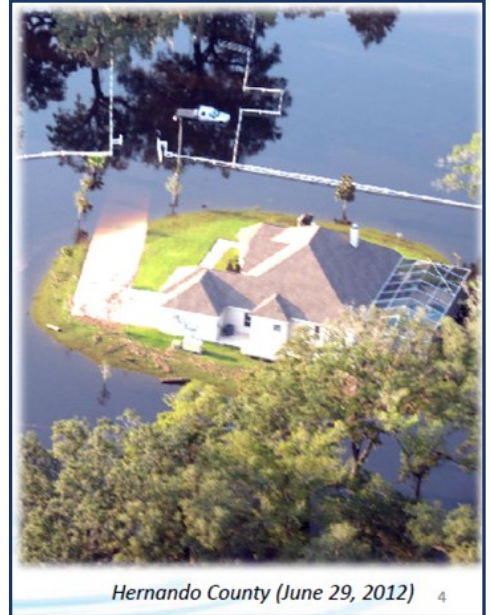
coast.noaa.gov/floodexposure

FDOT's Geoplan

sls.geoplan.ufl.edu/

BENEFITS

This coordinated effort at the state and regional level will educate and promote the use of coastal flood hazard assessment tools and enhance the understanding of coastal vulnerability and adaptation in Florida communities. The ability of Regional Planning Councils to train and provide technical assistance on the use of coastal flood hazard tools and associated techniques will offer greater support to local governments interested in pursuing coastal adaptation.



AN OVERVIEW OF THE FOUR TOOLS

FDOT/UF's Geoplan Sketch Planning Tool: A free visualizer and modelling software package intended to promote stakeholder engagement, scoping/inventory, assessment/analysis, and planning, the Geoplan Sketch Planning Tool offers a variety of sea-level rise analyses related to transportation.

NOAA's Digital Coast Sea Level Rise Viewer: A free visualizer which can facilitate stakeholder engagement, scoping and inventory, and assessment and analysis, SLR Viewer offers an online interactive platform in map format to display a variety of sea-level rise scenarios.

NOAA's Coastal Flood Exposure Mapper: Helps start community discussions about hazard impacts with maps of your area that show people, places, and natural resources exposed to coastal flooding. Select a section to view maps showing flood hazards or different aspects of community exposure to those flood hazards.

NOAA's CanVis: A free visualizer which is intended to elicit higher levels of stakeholder engagement, CanVis utilizes no data and modifies imagery to show potential inundation scenarios.

TOOLS AT WORK

NOAA's CanVis

This easy-to-use visualization tool enables users to "see" potential community impacts from coastal development or sea level rise by allowing users to upload their own pictures, or select pictures from NOAA's photo object library, and create realistic visualizations.

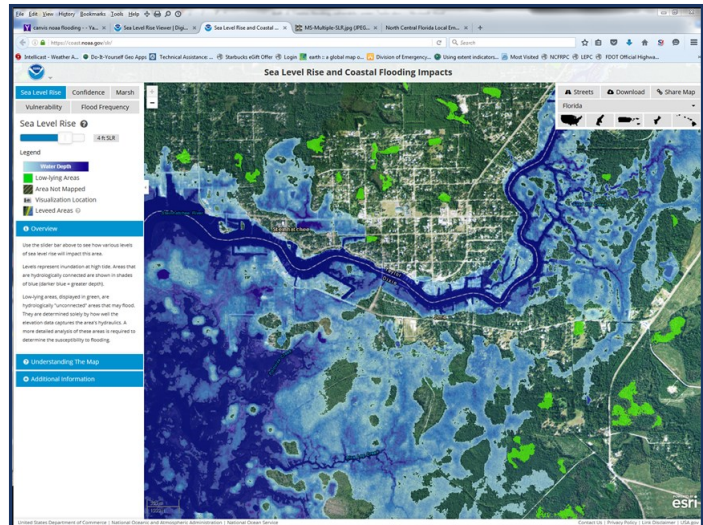


An example of CanVis

TOOLS AT WORK (CONTINUED)

NOAA's Digital Coast: Sea Level Rise Viewer

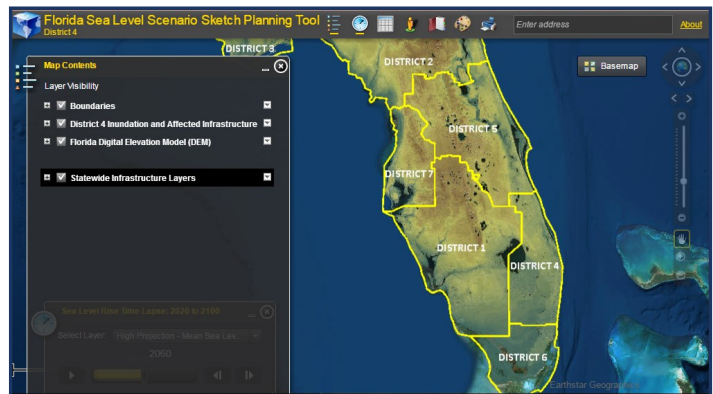
Select a geography and use the slider bar to simulate various sea level rise scenarios (from one to six feet above the average highest tides) and the corresponding areas that would be impacted by flooding. Click the camera icons for pictures that depict how local landmarks could be affected. Additional tabs provide information about marsh impacts, nuisance flood frequency, and social and economic data.



An example of the Digital Coast

FDOT/UF's Geoplan Sketch Planning Tool

The purpose of the tool is to facilitate the identification of transportation infrastructure potentially at risk from projected sea level changes. The tool visualizes various sea level scenarios at future time periods in an effort to inform transportation planners and highlight infrastructure for potential avoidance, minimization, or mitigation.

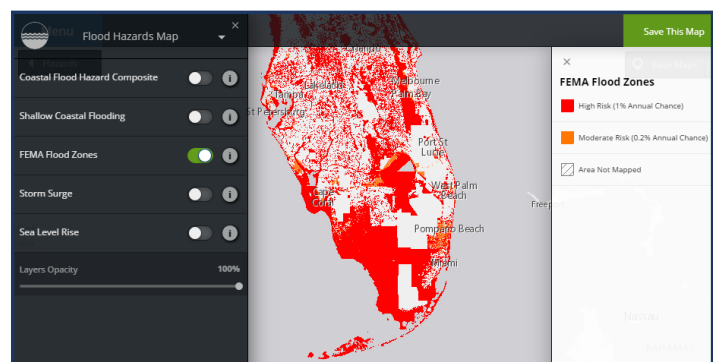


An example of the GeoPlan Sketch Planning Tool

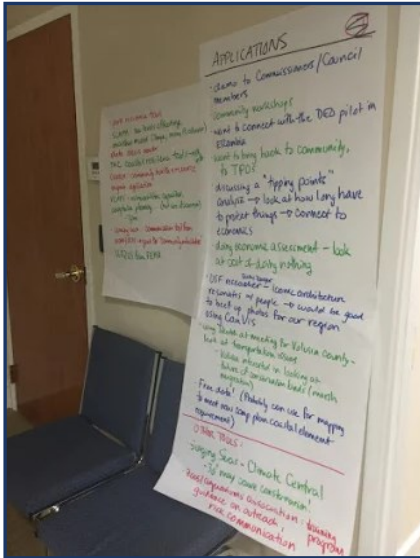
NOAA's Coastal Flood Exposure Mapper

This tool includes a range of coastal hazard layers, including sea level rise, shallow coastal flooding, storm surge, Federal Emergency Management Agency (FEMA) flood zones, and a composite hazard layer that includes all the hazards area to create hot spot of exposure zone. It also enables users to explore potential flood exposure via the following layers:

- Societal exposure: map demographic information with flood hazards
- Infrastructure exposure: map potential impacts to the built environment
- Ecosystem exposure: map exposure of natural areas to flood hazards



An example of the Coastal Flood Exposure Mapper



Vulnerability Assessments

In learning how to access and apply GIS layers from a variety of four planning tools, the five Planning Areas in Florida will work to apply the tools to create vulnerability assessments. The guidelines present requirements for each of the vulnerability assessments based on the grant requirements, in addition to optional ideas to consider and recommendations for components to add to each vulnerability assessment. A "Planning Area Vulnerability Assessment Worksheet" was handed out to participants and each was asked to provide the following information:

- Describe your study area (Name the County and/or Municipality)
- Identify tools that you will be using
- Identify datasets and sources that you will be using
- Outline the methods for defining assets
- Outline the methods for compiling counts & descriptive statistics
- Outline the methods for compiling tabular summaries

Tips & Guidance for Implementation of Vulnerability Assessments

There was a diverse group of participants with varying capacities, experience, and interests. To assist their understanding of vulnerability assessments and to better connect to planning practice, the training presented a background on SLR adaptation planning tools to connect vulnerability assessment work to potential planning and policy outcomes. Additionally, the training provided a background on the intricacies of mapping inundation and shared a background on the USACE SLR projections and the NOAA SLR projections. Example vulnerability assessments were shared to demonstrate potential options available to participants, as well as optional components for a vulnerability assessment they could consider.

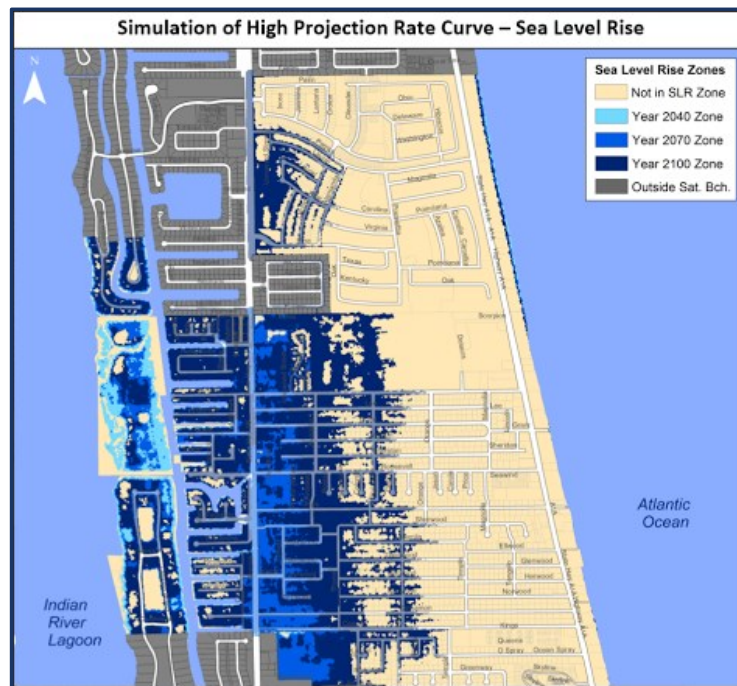
Example Vulnerability Assessments

Community Resiliency in the City of Satellite Beach - East Central Florida Regional Planning Council and City of Satellite Beach

www.ecfrpc.org/getattachment/4a863d45-ac88-49f2-b5e0-8d658f8e82cc/Vulnerability-Analysis---2015.aspx?disposition=attachment

Highlights on Exposure:

1. **Financial Exposure:** The financial exposure hazard analysis determines the total land value, building value, assessed property value and taxable property value located within each hazard zone. An example of a hazard zone would be a Category 1 Hurricane Storm Surge zone.
2. **Exposure to Built Parcels by Build Year:** This analysis summarizes the build year of all parcels within all hazard zones by decade. This allows for the analysis to account for construction dates in relation to critical building code or infrastructure ordinances.
3. **Land Use Exposure:** The land use exposure analysis summarizes the land uses of all parcels located within all hazard zones identified in the hazard analysis.
4. **Critical Facility Exposure:** This matrix details the hazard zones that each critical facility, utilizing the four hazards identified above.
5. **Environmental and Ecological Exposure:** This analysis determines the critical ecological and environmental areas located within each hazard zone



Example Vulnerability Assessments

City of Hollywood Vulnerability to Sea Level Rise Assessment Report

www.broward.org/NaturalResources/ClimateChange/Documents/ResilientCoastalComm/hollywd_slr.pdf

Mapping of different SLR scenarios can help to identify areas at potential risk and aid in planning for a sustainable community. This Geographic Information Systems (GIS) based study specifically assessed the following municipal infrastructure for the potential impacts of sea level rise: :

Airports , Bridges ,City Arterial Roads ,City Hall ,City Parks ,County Parks ,
Community Redevelopment Areas (CRAs) , Evacuation Routes , Fire Rescue Stations,
Hospitals , Law Enforcement Assets , Schools , Potable Water Treatment, Waste Water Treatment

Example of results

This table of "Vulnerable City Arterial Roads" quantifies the road segments that are vulnerable at two different sea level rise scenarios

MOFFETT ST, from US 1 to NE 14 Ave			Total Miles
			0.24
SLR Scenario	Possible	More Likely	Percent Total
1 Foot	0.10	0.00	42%
2 Foot	0.06	0.15	85%
N 14TH AVE, from Hollywood Blvd to Sheridan St			Total Miles
			1.16
SLR Scenario	Possible	More Likely	Percent Total
1 Foot	0.17	0.02	16%
2 Foot	0.38	0.65	90%



Tips & Guidance for Implementation of Regional Trainings

South Florida
Regional Council

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Blvd.
Suite 140
Hollywood, Florida

Phone: 954.985.4416

All of the resources
referenced here are
organized
at [https://goo.gl/
s5RYZD](https://goo.gl/s5RYZD)

Do's & Don'ts

- Don't Overwhelm Your Audience with Too Many Tools
- Create a Safe Environment – There are No Stupid Questions
- Use Activities, and Let Attendees See Their Input / Work
- Use Visuals
- Field-trips are great! Offer Solutions / Hope

"Robert Gagne's 9 Events of Instruction"

