



Regional Sea Level Rise Projections in Context

Whitney Gray, Administrator, FRCP, Tallahassee
(850) 245-2098 Whitney.Gray@FloridaDEP.gov



Florida Resilient Coastlines Program

Vision and Mission

Synergizing community resilience planning, natural resource protection tools and funding to prepare Florida's coastal communities for the effects of climate change, especially coastal flooding, erosion and ecosystem changes from sea level rise.



Florida Resilient Coastlines Program



RESOURCES

Florida Adaptation Planning
Guidebook & Technical
Assistance



FUNDING

Resilience Planning &
Implementation Grants



COORDINATION

Quarterly Coastal
Resilience Forum



Steps to Creating Adaptation Plans



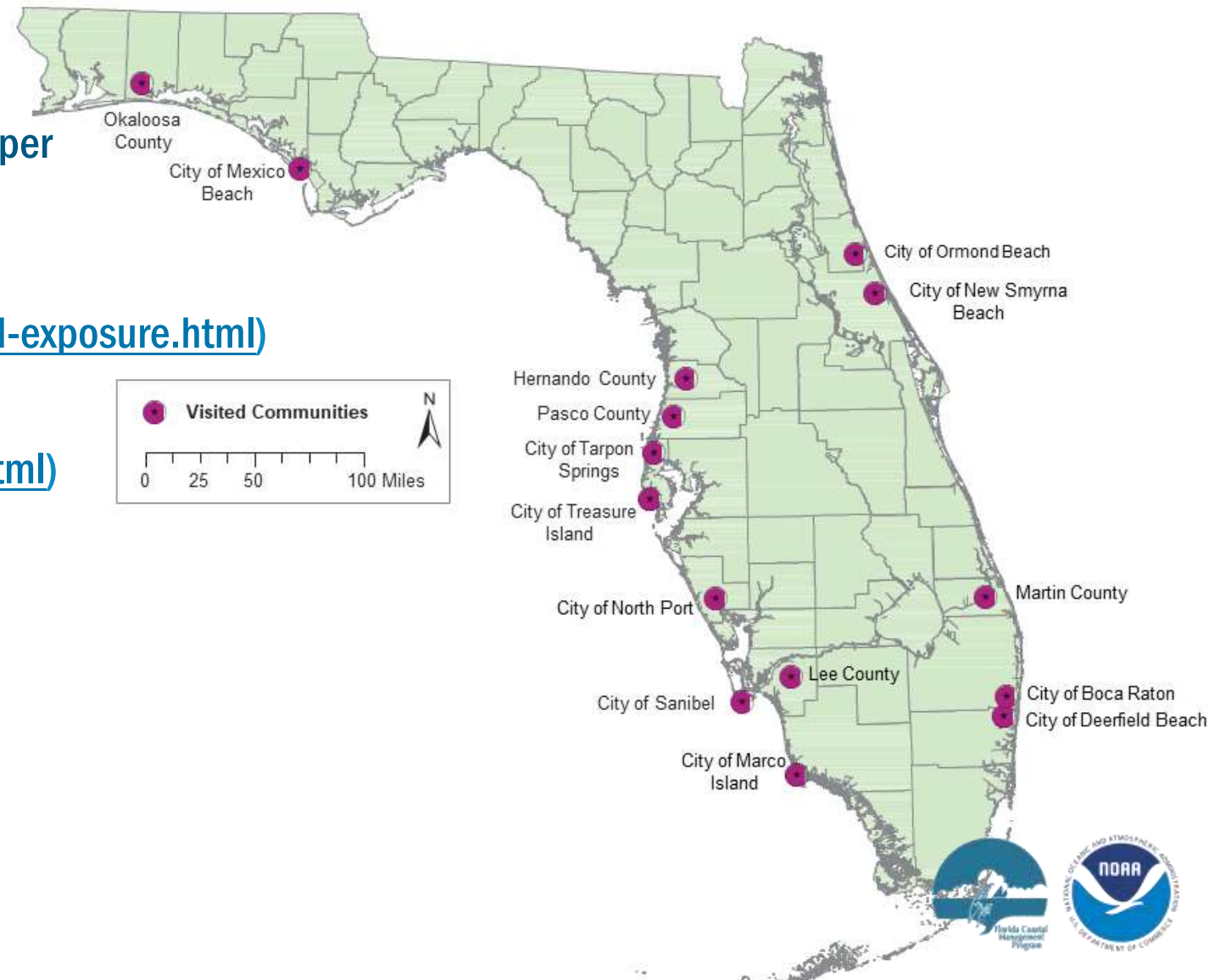
Figure 1. Communities can follow this roadmap of steps to create an adaptation plan.



Technical Assistance

Outreach to Local Governments

- The Nature Conservancy's Coastal Resilience Mapper (<http://maps.coastalresilience.org/network/>)
- NOAA's Coastal Flood Exposure Mapper (<https://coast.noaa.gov/digitalcoast/tools/flood-exposure.html>)
- NOAA's Sea Level Rise Viewer (<https://coast.noaa.gov/digitalcoast/tools/slr.html>)
- UF GeoPlan/FDOT Sea Level Sketch Planning Tool (<http://sls.geoplan.ufl.edu/#intro>)
- GulfTREE (<http://www.gulftree.org/>)
- Joseph.Bauer@FloridaDEP.gov

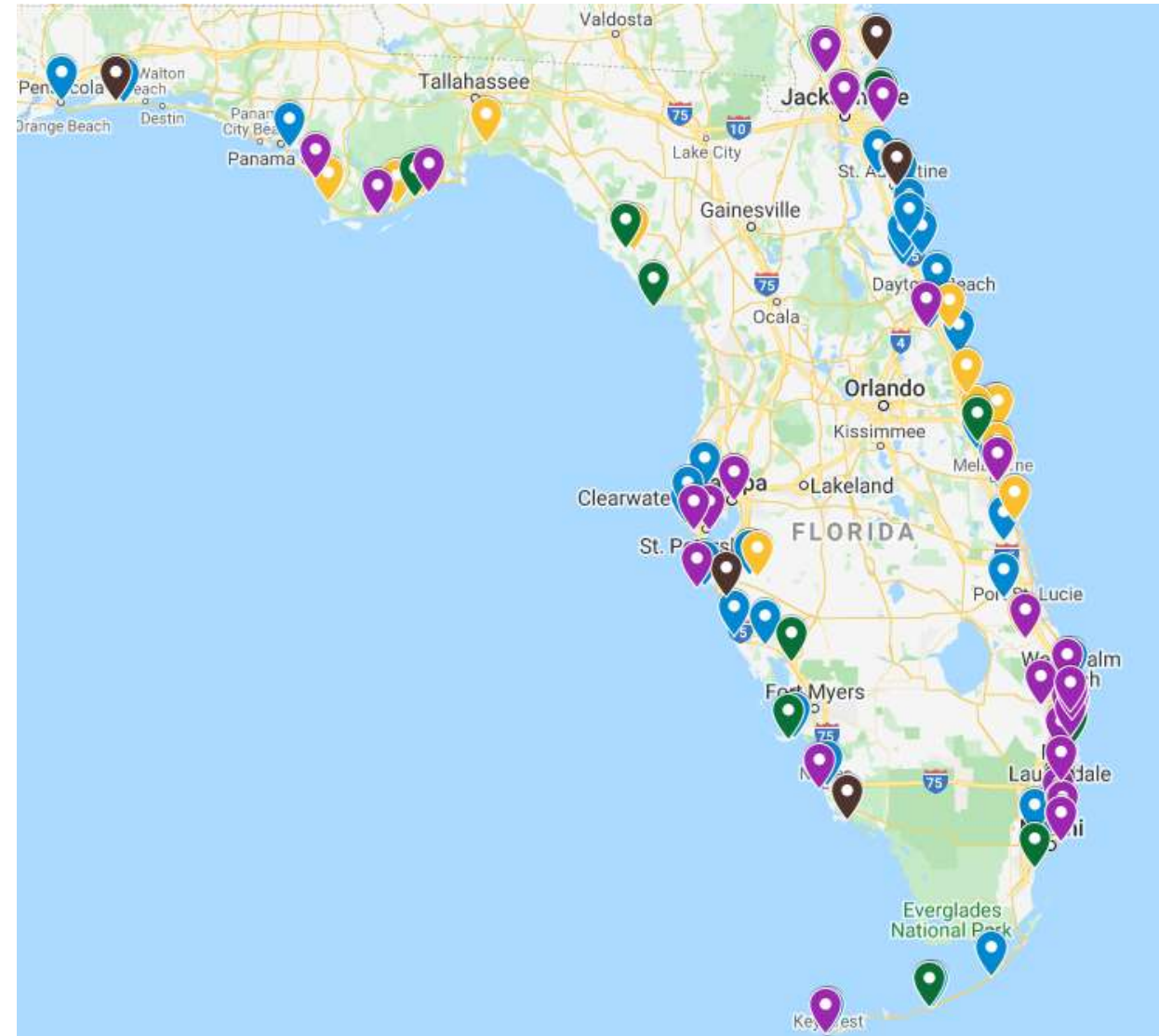




FRCP Grant Program Status

- **61 total grant agreements: \$4,036,124**
- **69 communities total served**
 - **Planning Projects**
 - 51 total RPGs
 - Total amount for RPGs = \$2,715,872
 - Average grant amount for RPGs = \$53,252
 - **Implementation Projects**
 - 10 projects
 - Total amount = \$1,320,252

Focused on compliance with Peril of Flood statute, vulnerability assessments, adaptation plans, and implementation of adaptation plans.





Coordination

Coastal Resilience Forum



ACOE
AECOM
American Planning Association
Apalachee RPC
Apalachicola Riverkeeper
ARPC
Audubon Florida
BRACE
Brevard County
Brizaga/Sea Level Rise Ready
Broward County
Broward MPO
Calusa Waterkeeper
CFRPC
City of Cape Coral
City of Clearwater
City of Crystal River
City of Fernandina Beach
City of Ft. Lauderdale
City of Hallendale Beach
City of Jacksonville
City of Jacksonville Beach
City of Miami
City of Miami Beach
City of Naples
City of Punta Gorda
City of Satellite Beach
City of St. Augustine
City of West Palm Beach
Coastal Waterways
Collier County
Collier County Waterkeeper
Conservancy of SW Florida
Deady Law
DEM
DEO
DEP
Dewberry
DOS
East Central Florida Regional

Planning Council
Emerald Coastkeeper
FAU
FDOT
FEMA
FGCU
FIND
FIU
FDACS
Fla Sea Grant
Flagler County
Florida League of Cities
Florida Chamber of Commerce
Florida Climate Institute
Florida Earth Institute
FRCA
FSU
FSU Center for Ocean-Atmospheric
Prediction Studies
FSU Law
FWC
GCFI
Gulf Archaeology Research Institute
Hillsborough County
Institute for Sustainable
Communities
IRLNEP
Kennedy Space Center
Lake Worth Waterkeeper
Martin County
Matanzas Riverkeeper
Miami Waterkeeper
Miami-Dade County
Monroe County
Nassau County
NC Division of Coastal Management
NCFRPC
NEFRPC
NOAA
NOAA/ANERR

NOAA/GTM
NOAA/RBNERR
North Florida Land Trust
NFWFMD
Palm Beach County
Pasco County
Pinellas County
RBNERR
RWParkinson Inc
Sanibel-Captiva Conservation
Foundation
Sarasota Estuary Program
Sea Turtle Conservancy
SEFRCC
SFRPC
Southwest Florida Community
Foundation
St. John's Riverkeeper
Stearns Weaver
Stetson University
Suncoast Waterkeeper
SWFRPC
Tampa Bay Waterkeeper
Taylor Engineering, Inc.
TBEP
TBRPC
TCRPC
The Nature Conservancy
TNC
Tortoise Island
UF
UF (Geology)
UF (planner)
UF Geoplan
UF/IFAS Extension-Florida Sea Grant
USACE
USF
WFRPC
Youth Environmental Alliance



Sea Level Rise Projections in Context

Local Examples and Potential State Rules and Resources



**Besides your comprehensive plan, which plans or codes include policies or projects relating to sea level rise?
Please select all that apply.**

	Number of Respondents	Percent of 96 municipalities Surveyed
Local Mitigation Strategy	49	51.0%
Building Code	33	34.4%
Land Development Code	32	33.3%
Capital Improvement	32	33.3%
Flood Damage Prevention Ordinance	29	30.2%
Climate Action/Adaptation or Sustainability Plan	22	22.9%
Water Supply Plan	18	18.8%
Economic Development Plan	3	3.1%



Sea Level Rise Projections in Context

Local Examples

Broward County Regional Resilience Standards

- Future conditions modeling and mapping
 - Minimum elevation of seawalls to be
 - 4 feet NAVD 88 by 2035 and
 - 5 feet NAVD 88 by 2050
 - Higher finished floor elevations
 - Drainage and water management





Sea Level Rise Projections in Context

Local Examples

City of Miami – Ordinance 7338 (2nd reading 6/25/20)

- Codifies “NAVD 88 as the applicable vertical datum for the purpose of administering the City of Miami’s flood damage prevention regulations.”
- Minimum elevation of seawalls to be 6 feet NAVD 88 – change from 5 feet NGVD, which takes recent changes in sea level into consideration, along with increasing the minimum height.
- Must be designed to be capable of a minimum elevation of at least 8 feet to take into consideration high tides and SLR through 2070.



SLR Projections in Context

SB 178: Public financing of construction projects

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2 An act relating to public financing of construction
3 projects; creating s. 161.551, F.S.; defining terms;
4 prohibiting state-financed constructors from
5 commencing construction of certain structures in
6 coastal areas after a specified date without first
7 taking certain steps regarding a sea level impact
8 projection study; requiring the Department of
9 Environmental Protection to develop by rule a standard
10 for such studies; providing that such rule operates



Requirements of the Bill

Requires a public entity that commissions or manages a construction project, **within the coastal building zone**, using **funds appropriated from the state**, to conduct a **sea level impact projection (SLIP) study before starting construction**. The study must be conducted, submitted to DEP, and published on DEP's website for at least 30 days before construction can commence.



Source: Bill Analysis and Fiscal Impact Statement by the Professional Staff of the Florida Senate Committee on Appropriations



Requirements of the Bill

- DEP must adopt rules establishing the standards for the SLIP studies, and the standards must include certain requirements for how the studies will be conducted and the information they must contain.
- DEP must publish and maintain a copy of all SLIP studies on its website for 10 years after receipt.



Other Aspects of the Bill

- DEP may require that a PE sign off on SLIP studies submitted.
- Rules developed may not apply retroactively.
- The study must assess the flooding, inundation and wave action damage risks faced by the structure over its expected life or 50 years, whichever is less.
- The assessment must take into account potential relative sea level rise and increased storm risk, and, to the extent possible, account for the contribution of land subsidence to the relative local sea level rise.



Other Aspects of the Bill

- Potential public safety and environmental impacts resulting from damage to the structure must be analyzed:
 - Leakage of pollutants
 - Electrocution and explosion hazards
 - Floating or flying structural debris
- The assessment must provide alternatives for the coastal structure's design and siting
- The assessment must analyze the risks and costs associated with maintaining, repairing and constructing the coastal structure



DEP Implementation Steps

- Define the parameters of the SLIP study
 - Sea Level Rise Projection
 - Contributions of subsidence
 - Potential future storm risk
- Create a document management system for maintaining records for 10 years
- Rule-making



Thank you!

**Contact Whitney Gray 850-245-2098
or Whitney.Gray@FloridaDEP.gov**