

# PERIL OF FLOOD WORKSHOP

## OPPORTUNITIES TO IMPROVE COMMUNITY RESILIENCE THROUGH IMPLEMENTATION

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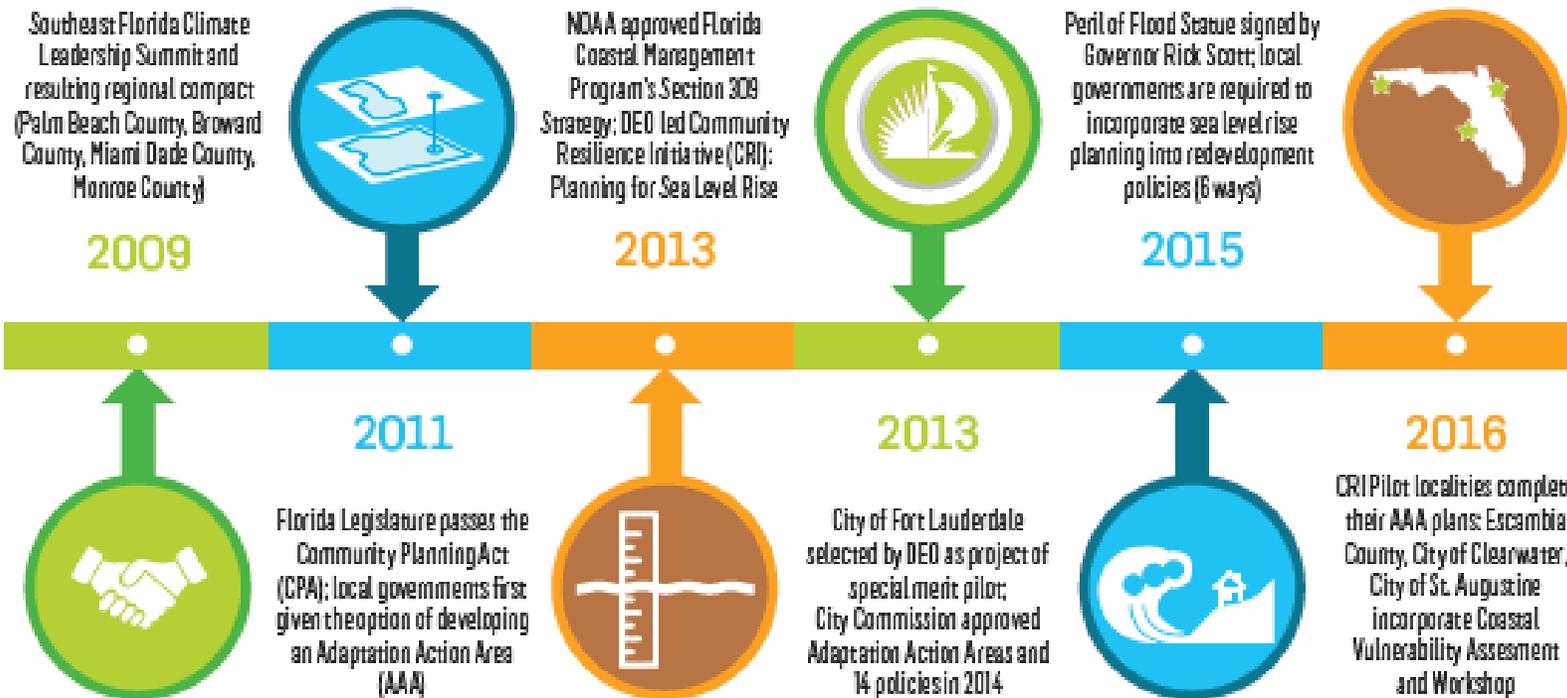
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UNIVERSITY OF FLORIDA RESILIENT COMMUNITIES INITIATIVE

SESSION 1, JUNE 14, 2019

TAMPA BAY REGIONAL PLANNING COUNCIL

# 21st Century Adaptation Planning in Florida



COMPREHENSIVE PLAN:  
COASTAL MANAGEMENT ELEMENT  
FLORIDA STATUTES § 163.3178

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# 2015 PERIL OF FLOOD

## F.S. §163.3178(2)(F) (2018)

(f) A redevelopment component that ~~which~~ outlines the principles that must ~~which shall~~ be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. The component must:

1. Include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas . . . from . . . related impacts of sea-level rise.
2. Encourage . . . the removal of coastal real property from [FEMA] flood zone designations.
3. Site development techniques and best practices [to] reduce [flood] losses [and] flood insurance claims.
4. [C]onsistent with, or more stringent than, the Florida Building Code and [FEMA] flood regulations 44 C.F.R. part 60.
5. Construction seaward of the coastal construction control lines must be consistent with chapter 161.
6. Encourage local governments to participate in the NFIP CRS to achieve flood insurance premium discounts for their residents.

(f) . . . **The component must:**

1. Include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise.

2. Encourage the use of best practices development and redevelopment principles, strategies, and engineering solutions that will result in the removal of coastal real property from flood zone designations established by the Federal Emergency Management Agency.

3. Identify site development techniques and best practices that may reduce losses due to flooding and claims made under flood insurance policies issued in this state.

4. Be consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable floodplain management regulations set forth in 44 C.F.R. part 60.

5. Require that any construction activities seaward of the coastal construction control lines established pursuant to s. [161.053](#) be consistent with chapter 161.

6. Encourage local governments to participate in the National Flood Insurance Program Community Rating System administered by the Federal Emergency Management Agency to achieve flood insurance premium discounts for their residents.

# STATE OF FLORIDA PDRP FLORIDA PDRP GUIDE



2<sup>nd</sup> revised  
Edition  
recently  
posted

<https://floridadep.gov/fco/florida-resilient-coastlines-program/documents/post-disaster-redevelopment-planning-guidebook>

# FLORIDA ADAPTATION PLANNING GUIDEBOOK



<https://floridadep.gov/fco/florida-resilient-coastlines-program/documents/adaptation-planning-guidebook>

**Provides framework to develop or update an existing adaptation plan based on current Florida law, requirements and recommendations.**

**Appendix contains specialty topics, (cultural and natural resources), sample vulnerability assessments and adaptation plans.**

# VULNERABILITY ANALYSIS

## Steps to Create Adaptation Plans

### CONTEXT

- Assemble a steering committee
- Set guiding principles and motivations
- Establish planning area and describe geographic context
- Define public outreach approach and opportunities for community participation

### ADAPTATION STRATEGIES

- Assess adaptive capacities
- Prioritize adaptation needs
- Identify adaptation strategies
- Integrate into existing plans

### VULNERABILITY ASSESSMENT

- Conduct an exposure analysis
- Conduct a sensitivity analysis
- Assign focus areas

### IMPLEMENTATION STRATEGIES

- Assess implementation capabilities
- Create a schedule of activities, actions, and actors
- Monitor and evaluate



# VULNERABILITY ANALYSIS

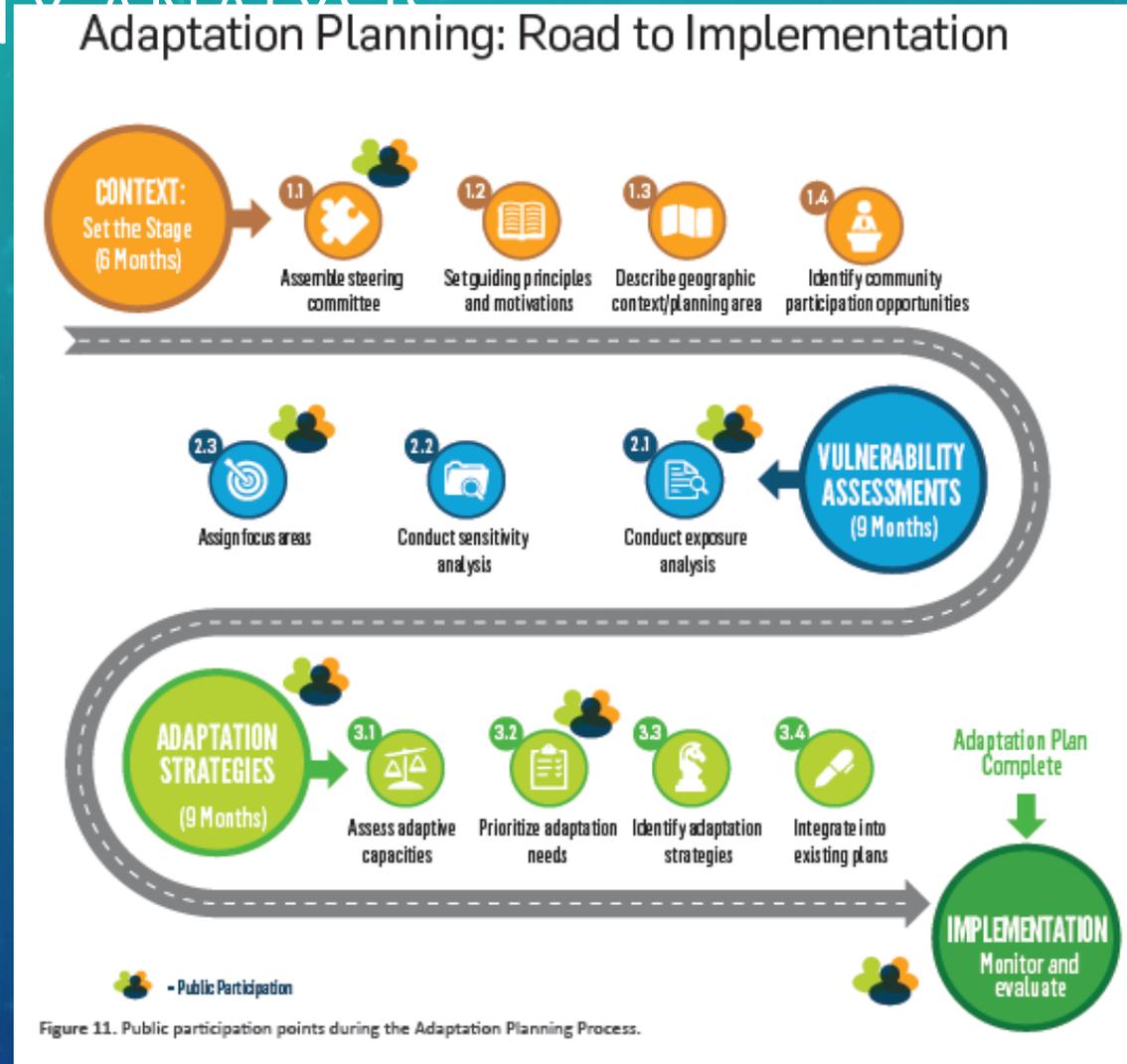


Figure 11. Public participation points during the Adaptation Planning Process.

# VULNERABILITY ANALYSIS

Sensitivity Analysis Elements	
Land	Sewage Plants
Property Value	Water Plants
Homes	Hospitals
Population	Evacuation Routes
High Social Vulnerability Population	Public Schools
Population of Color	Houses of Worship
EPA Listed Sites	Marinas
Roads	Ports and Airports
Railroads	Emergency Shelters
Passenger Stations	Acres of Future Land Use
Power Plants	Habitat Type

# OUTLINE OF PDRP COMPONENTS: CAPACITY ASSESSMENT, VULNERABILITY ANALYSIS, AND FACILITATING INPUTS

- **Capacity Assessment**—a review that provides a basis for assessing the community’s ability to implement the PDRP and identify any potential gaps in capacity.
- **Vulnerability Analysis**—provides estimates of disasters by creating scenarios of different impacts. These estimates guide long-term redevelopment strategies.
- **Facilitating Inputs**—address issues, develop strategies and actions, plan implementation, and pre-disaster public participation.

# WHAT IS A VULNERABILITY ANALYSIS/ASSESSMENT?

The vulnerability analysis is meant to provide estimations of disaster scenario impacts that would affect long-term redevelopment so that actions to address those impacts can be anticipated and included in the Post-Disaster Redevelopment Plan (PDRP).

# VULNERABILITY ANALYSIS

- to provide estimates of disasters by creating different scenarios that show impacts to long-term redevelopment in different areas.
- These impacts can then be anticipated and planned for in the PDRP.
- an overall assessment of every area or aspect that will be significantly impacted by a natural or manmade disaster. This is done using GIS to analyze how vulnerable each area is to such disasters, based on past trends. The vulnerability assessment is used as a guideline to create the tasks in the Action Plan.
- The HVA team should first use brainstorming to determine the potential disasters that the community as a whole may encounter. Disasters can be generally classified as either natural disasters or manmade disasters. The vulnerability assessment is different for every community, since some are more susceptible to disasters than others.

# VULNERABILITY ANALYSIS/ASSESSMENT

- include information gathered from existing data sources: the Local Mitigation Strategy (LMS), Comprehensive Emergency Management Plan (CEMP), and the Comprehensive Plan. The LMS identifies the hazards to which communities are most vulnerable.
- Stakeholder expertise to develop the strategies.
- Develop hazard risk scenarios that include long-term impacts.
  - educate the public
  - create tasks to address these problems

# VULNERABILITY ANALYSIS/ASSESSMENT

- Some of the most comprehensive PDRP's, include effective data about:
  - economic redevelopment initiatives,
  - financial impact analysis,
  - environmental or habitat impact analysis,
  - historical preservation assessment,
  - sea level rise inundation and increased storm surge analysis.
- Knowing when and how disaster will strike is still a highly uncertain science. Communities that have developed recovery plans in advance of a disaster can be well-positioned, whenever that inevitable time comes, to more quickly organize for recovery, engage knowledgeably with state and federal partners as well as citizens about the likely recovery needs and challenges, and ultimately achieve a more successful recovery for the entire community.

# PLAN AMENDMENTS:

- Focus on vulnerable areas
- Monitor pumping stations
- Line waste water pipes
- Monitor/retrofit stormwater facilities
- Utilize parks for attenuation
- Work to address roads and public uses at risk