Adaptation Planning in Florida

21st Century Adaptation Planning in Florida

- **2009**: Southeast Florida Climate Leadership Summit and resulting regional compact (Palm Beach County, Broward County, Miami-Dade County, Monroe County)
- **2013**: NOAA approved Florida Coastal Management Program’s Section 309 Strategy; DEO led Community Resilience Initiative (CRI): Planning for Sea Level Rise
- **2015**: Peril of Flood Statue signed by Governor Rick Scott; local governments are required to incorporate sea level rise planning into redevelopment policies (6 ways)
- **2011**: Florida Legislature passes the Community Planning Act (CPA); local governments first given the option of developing an Adaptation Action Area (AAA)
- **2013**: City of Fort Lauderdale selected by DEO as project of special merit pilot; City Commission approved Adaptation Action Areas and 14 policies in 2014
- **2016**: CRI Pilot localities complete their AAA plans: Escambia County, City of Clearwater, City of St. Augustine incorporate Coastal Vulnerability Assessment and Workshop
Steps to Creating Adaptation Plans

1. **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

2. **Vulnerability Assessment**
   - Conduct an exposure analysis
   - Conduct a sensitivity analysis
   - Assign focus areas

3. **Adaptation Strategies**
   - Assess adaptive capacities
   - Prioritize adaptation needs
   - Identify adaptation strategies
   - Integrate into existing plans

4. **Implementation Strategies**
   - Assess implementation capabilities
   - Create a schedule of activities, actions, and actors
   - Monitor and evaluate

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

Set the stage

- **Who**: Steering Committee
- **What**: Topics i.e., infrastructure, natural resources, health, safety, economy
- **Why**: Guiding Principles and Motivations
- **When**: Timeframe
- **Where**: Geographic Context
- **How**: Data sources, tools, resources, public meetings, outreach
Banking, finance and insurance are often overlooked

Vulnerable communities need to be actively recruited
Guiding Principles and Motivations

The principles and motivations examine how the community operates and set its vision for the future, which leads to planning goals.

Overarching Goals

- Leadership & Strategy
- Economy & Society
- Health & Wellbeing
- Infrastructure & Environment
Geographic Context
Public Outreach

Community members beyond the Steering Committee

- Governmental entities other than the lead
  - Elected officials
  - Government staff
- Community organizations
  - Church groups
  - Civic groups
  - Homeowner associations
  - Specific interest groups
- Businesses
  - Real estate
  - Banking/insurance
  - Directly or indirectly affected by SLR
- General public
  - Minorities
  - Disadvantaged/vulnerable populations
  - Youth
Vulnerability Assessment

Exposure
- Exposure indicators
  - E.g., storm surge depth

Sensitivity
- Sensitivity indicators
  - E.g., asset condition

Adaptive Capacity
- Adaptive capacity indicators
  - E.g., length of detour around asset

**Steps to Create Adaptation Plans**

1. **Vulnerability Assessment**
   - Conduct an exposure analysis
   - Conduct a sensitivity analysis
   - Assess capacity indicators

2. **Adaptation Strategies**
   - Select appropriate adaptation strategies
   - Develop implementation strategies

3. **Implementation Strategies**
   - Develop implementation strategies
   - Outline key implementation activities

4. **Implementation**
   - Implement adaptation plans
   - Monitor implementation progress

Note: Community and stakeholder input is critical to adaptation plans.
Adaptation Strategies

Adaptive Capacity

“The ability of a system to adjust to climate change ... to moderate potential damages, to take advantage of opportunities, or to cope with the consequences” (IPCC)

What are our...

• Regulatory and planning capabilities?
• Administrative and technical capabilities?
• Fiscal capacities?
• Infrastructure assets?
Prioritize Adaptation Needs

- Awareness of the impacts of potential sea level rise and flooding
- Focus areas identified
- Inventoried the capacity of the community to adapt

Combine findings and create a short list of biggest challenges to determine what can feasibly be done where and when

Prioritize Adaptation Needs
Strategy Types

TYPES OF ADAPTATION STRATEGIES

Once major needs and priorities are defined, specific adaptation strategies can be developed, vetted, and defined.

01 Protection
Protection strategies are structurally defensive measures that directly protect vulnerable structures, allowing them to be left largely unaltered.

02 Accommodation
Accommodation strategies alter physical design of vulnerable structures to allow the structure or land use to stay in place with modification.

03 Retreat
Retreat from areas or infrastructure where protection or accommodation will not be efficient or effective can be voluntary, incentivized, or done gradually.

04 Avoidance
Avoidance involves guiding new development away from areas that are subject to coastal hazards and can be done by implementing policy and/or offering of incentives.

Figure 19. Types of Adaptation Strategies.
Adaptation Action Areas

- Added to Florida Community Planning Act in 2011 session
- Florida Statutes 163.3177(6)(g)10
- Optional comprehensive plan designation for areas that:
  - experience coastal flooding
  - are vulnerable to the related impacts of rising sea levels
- Purpose: prioritizing funding for infrastructure and adaptation planning
Implementation Strategies

- Funding
- Prioritization
- Integrate into other plans
- Monitor and evaluate
Guidebooks

*Florida Adaptation Planning Guidebook & PDRP Addendum*

- Provide research-developed best practices and step-by-step processes
- Appropriate for city, county, regional planners and emergency/floodplain managers
Appendices

- The Economic Value of Sea Level Rise Adaptation Planning
- The Community Rating System and Sea Level Rise Adaptation
- Protecting and Preserving Historic and Cultural Resources
- Adaptation Action Areas to Protect Natural Resources
- Funding Opportunities
- Examples
Florida Community Resiliency Initiative Pilot Project

Adaptation Plan
for St. Augustine, Florida

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Florida Resilient Coastlines Program

The Florida Department of Environmental Protection is committed to marshalling resources to prepare Florida's coastal communities and habitats for the effects of climate change, especially rising sea levels. Through the Florida Resilient Coastlines Program, DEP continues its efforts to help ensure collaboration among Florida's coastal communities, to offer technical assistance and funding to coastal communities dealing with increasingly complex flooding, erosion, and habitat shifts.