Peril of Flood FDEP Project Workshop

March 21, 2019 8:00 a.m. to 3:30 p.m.
Tampa Bay Regional Planning Council
New Regional Resilience Project

The TBRPC in partnership with Manatee County

Technical Training and Education for Local Governments to Address the Peril of Flood Requirements

2018 grant from the Florida Resilient Coastlines Program in the Florida Coastal Office of DEP with funding from NOAA’s Florida Coastal Management Program
(1) . . . [l]ntent of the Legislature that local government comprehensive plans restrict development activities where such activities would damage or destroy coastal resources, and that such plans protect human life and limit public expenditures in areas that are subject to destruction by natural disaster.


Last modified /revised /updated in 20??
CHAPTER 85-55

Committee Substitute for House Bill No. 287

An act relating to growth management; amending part II of chapter 163, F.S.; revising the short title and various provisions of ss. 163.3161-163.3211, F.S., the Local Government Comprehensive Planning Act of 1975; revising definitions; deleting provisions relating to jurisdiction
Section 7. Section 163.3178, Florida Statutes, is created to read:

163.3178  Coastal management.--

(1) The Legislature recognizes there is significant interest in the resources of the coastal zone of the state. Further, the Legislature recognizes that, in the event of a natural disaster, the state may provide financial assistance to local governments for the reconstruction of roads, sewer systems, and other public facilities. Therefore, it is the intent of the Legislature that local government comprehensive plans restrict development activities where such activities would damage or destroy coastal resources, and protect human life and limit public expenditures in areas that are subject to destruction by natural disaster.

(2) Each coastal management element required by s. 163.3177(6)(g) shall be based on studies, surveys, and data; be consistent with coastal resource plans prepared and adopted pursuant to general or special law; and contain:
(1) . . . it is the intent of the Legislature that local government comprehensive plans restrict development activities where such activities would damage or destroy coastal resources, and protect human life and limit public expenditures in areas that are subject to destruction by natural disaster.
(2) Each coastal management element required by s. 163.3177(6)(g) shall be based on studies, surveys, and data; be consistent with coastal resource plans prepared and adopted pursuant to general or special law; and contain:
(2)(a) A land use and inventory map of existing coastal uses, wildlife habitat, wetland and other vegetative communities, undeveloped areas, areas subject to coastal flooding, public access routes to beach and shore resources, historic preservation areas, and other areas of special concern to local government.
(2)(b) An analysis of the environmental, socioeconomic, and fiscal impact of development and redevelopment proposed in the future land use plan, with required infrastructure to support this development or redevelopment, on the natural and historical resources of the coast and the plans and principles to be used to control development and redevelopment to eliminate or mitigate the adverse impacts on coastal wetlands; living marine resources; barrier islands, including beach and dune systems; unique wildlife habitat; historical and archaeological sites; and other fragile coastal resources.
(2)(c) An **analysis** of the effects of existing **drainage systems** and the **impact of point source and nonpoint source pollution** on estuarine water quality and the plans and principles, including existing state and regional regulatory programs, which shall be used to **maintain or upgrade water quality** while maintaining **sufficient quantities of water flow**.
(2)(d) A component which outlines principles for hazard mitigation and protection of human life against the effects of natural disaster, including population evacuation, which take into consideration the capability to safely evacuate the density of coastal population proposed in the future land use plan element in the event of an impending natural disaster. The Division of Emergency Management shall manage the update of the regional hurricane evacuation studies, ensure such studies are done in a consistent manner, and ensure that the methodology used for modeling storm surge is that used by the National Hurricane Center.
(2)(e) A component which outlines principles for protecting existing beach and dune systems from human-induced erosion and for restoring altered beach and dune systems.
(2)(f) A redevelopment component that outlines the principles that must be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. The component must:
2015 Peril of Flood

(f) A redevelopment component that outlines the principles that must 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.


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.
(f) A redevelopment component that outlines the principles that must 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 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 flood plain management regulations set forth in 44 C.F.R. part 60.

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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.
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)
- **2011**: Florida Legislature passes the Community Planning Act (CPA); local governments first given the option of developing an Adaptation Action Area (AAA)
- **2013**: NOAA approved Florida Coastal Management Program’s Section 308 Strategy; DEO led Community Resilience Initiative (CRI): Planning for Sea Level Rise
- **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
- **2015**: Peril of Flood Statute signed by Governor Rick Scott; local governments are required to incorporate sea level rise planning into redevelopment policies (6 ways)
- **2016**: CRI Pilot localities complete their AAA plans; Escambia County, City of Clearwater, City of St. Augustine incorporate Coastal Vulnerability Assessment and Workshop
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

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
Vulnerability Analysis

Adaptation Planning: Road to Implementation

CONTEXT: Set the Stage (6 Months)
1.1 Assemble steering committee
1.2 Set guiding principles and motivations
1.3 Describe geographic context/planning area
1.4 Identify community participation opportunities

VULNERABILITY ASSESSMENTS (9 Months)
2.1 Conduct exposure analysis
2.2 Conduct sensitivity analysis
2.3 Assign focus areas

ADAPTATION STRATEGIES (9 Months)
3.1 Assess adaptive capacities
3.2 Prioritize adaptation needs
3.3 Identify adaptation strategies
3.4 Integrate into existing plans

IMPLEMENTATION
Monitor and evaluate

Adaptation Plan Complete

Figure 11. Public participation points during the Adaptation Planning Process.
## Vulnerability Analysis

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