Peril of Flood
Webinar
March 31, 2017
10:00 to 11:00 AM
Originating from:
Tampa Bay Regional Planning Council
Pinellas Park, FL
This Morning’s Agenda

- Overview/recap of the introductory Peril of Flood Workshops
  - Pinellas Park (TBRPC) – March 3rd
  - Brooksville (SWFWMD) – March 27th
- Overview and demonstration of sea level rise and coastal flood exposure mapping and analysis tools
- Brief introduction to literature about hazard mitigation in comprehensive planning
- Exit Survey!
Peril of Flood
Introductory Workshops

Brady Smith, AICP, CFM
Principal Planner
Tampa Bay Regional Planning Council
March 31, 2017
Peril of Flood Act

- CS/CS/CS/SB 1094 approved by Governor Scott on 5/22/15
- Laws of Florida Chapter No. 2015-69
- Effective July 1, 2015

https://www.flsenate.gov/Session/Bill/2015/1094/?Tab=BillHistory
Peril of Flood Act

- Amends s. 163.3178(f)(2), Florida Statutes

- Mandates new requirements for the coastal management element of a local government comprehensive plan
Peril of Flood Act

- s. 163.3178(f)(2), Florida Statutes
  - 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:
Peril of Flood Act

- s. 163.3178(f)(2), Florida Statutes
  - 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.
o s. 163.3178(f)(2), Florida Statutes
  o 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:

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.
Peril of Flood Act

- s. 163.3178(f)(2), Florida Statutes
  - 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:

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.
Pinellas Park Introductory Workshop
(TBRPC – March 3, 2017)

58 in attendance
Brooksville Introductory Workshop (SWFWMD – March 27, 2017)

19 in attendance

Southwest Florida Water Management District

WATERMATTERS.ORG • 1-800-423-1476
Peril of Flood
Introductory Workshop Recap

- Overview of the Peril of Flood Act and its requirements
- Examples of Peril of Flood related amendments already proposed/adopted
- Presentation from Shawn College on the City of Tampa’s Peril of Flood amendment (DEO #17-1ESR) and corresponding sea level rise vulnerability assessment

TBRPC Peril of Flood Workshop:
City of Tampa 2015 Peril of Flood Act Vulnerability Assessment
Shawn College, AICP, Team Leader, Environmental Planning, Infrastructure and Research
Jurisdictions that have proposed and/or adopted Peril of Flood amendments

- St. Petersburg (DEO #15-5ESR)
- Clearwater (DEO #16-1ESR)
- Treasure Island (DEO #16-1ESR)
- Madeira Beach (DEO #16-1ESR)
- South Pasadena (DEO #16-1ESR)
- Tampa (DEO #17-1ESR)
Jurisdictions that have proposed and/or adopted Peril of Flood amendments

- Boynton Beach (DEO #16-1ER)
- Broward County* (DEO #13-2ESR)
- Cutler Bay (DEO #16-2ESR)
- Duval/Jacksonville (DEO #17-1ER)
- Jupiter (DEO #16-1ESR)
- Jupiter Inlet Colony (DEO #16-1ER)

* Adopted Prior to Peril of Flood Act effective date
Jurisdictions that have proposed and/or adopted Peril of Flood amendments

- Miami Beach (DEO #16-1ESR)
- North Miami (DEO #15-2ESR)
- North Port (DEO #16-2ER)
- Palm Bay (DEO #15-2ESR)
- Pinecrest* (DEO #15-2ESR)
- Santa Rosa County (DEO #16-1ER)

* Adopted Prior to Peril of Flood Act effective date
Jurisdictions that have proposed and/or adopted Peril of Flood amendments

- City of Sarasota (DEO #16-2ER)
- Satellite Beach (DEO #16-1ESR)
Overview and Demonstration of Web-based Mapping and Analysis Tools for Assessing Potential Exposure to Sea Level Rise and Coastal Flood Events

Heidi Stiller
Coastal Management Specialist
National Oceanographic and Atmospheric Administration (NOAA)
St. Petersburg, FL
Click the link below to download Heidi Stiller’s (NOAA) March 31st demonstration (WMV video):
http://www.tbrpc.org/events/PerilOfFlood/033117/PerilOfFlood_Workshop3_033117.wmv

Link to NOAA Sea Level Rise viewer (Beta):
https://coast.noaa.gov/slr/beta/

Link to NOAA Coastal Flood Exposure Mapper:
Thank you, Heidi!

Heidi Stiller
Coastal Management Specialist
National Oceanographic and Atmospheric Administration (NOAA)
St. Petersburg, FL

Heidi.Stiller@noaa.gov
Integration of Flood Hazard Mitigation Policies and Strategies into the Comprehensive Plan: A Brief Review of Existing Literature and Other Resources

Brady Smith, AICP, CFM
Principal Planner
Tampa Bay Regional Planning Council
Pinellas Park, FL
Integrating Hazard Mitigation into the Comprehensive Plan

- Integrating Hazard Mitigation into Local Planning: Case Studies and Tools for Community Officials
- FEMA
- Case Studies and Examples

https://www.fema.gov/media-library/assets/documents/31372
Integrating Hazard Mitigation into the Comprehensive Plan

- Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards
- FEMA
- Flood section – pages 21-31

Integrating Hazard Mitigation into the Comprehensive Plan

- Hazard Mitigation: Integrating Best Practices into Planning, James C. Schwab, Editor
- APA Planning Advisory Service Report #560
- Case Studies
  - Including Lee County, Florida

https://www.planning.org/publications/report/9026884/
Integrating Hazard Mitigation into the Comprehensive Plan

- Coastal Zone Management, Elizabeth Felter and Marya Morris
- APA Planning Advisory Service Report #581
- Chapter 4, page 34
  - Adaptation and Resilience Planning

https://www.planning.org/publications/report/9026904/
Integrating Hazard Mitigation into the Comprehensive Plan

• Subdivision Design and Flood Hazard Areas, James C. Schwab, Editor

• APA Planning Advisory Service Report #584

https://www.planning.org/publications/report/9112664/
Integrating Hazard Mitigation into the Comprehensive Plan

- Multi-jurisdictional Local Mitigation Strategies

Pinellas County Local Mitigation Strategy

<table>
<thead>
<tr>
<th>GOALS</th>
<th>ACTIVITY CLASS</th>
<th>OBJECTIVES</th>
<th>ACTIONS</th>
<th>IMPLEMENTATION DOCUMENTS</th>
<th>AGENCY/DEPTS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOAL 1: Become a more disaster resilient community.</td>
<td>Structural Projects</td>
<td>Objective 1.1: Support the construction of structures that reduce the impact of hazards, including storm water control, foundation, structural, security and monitoring capabilities, and safe rooms.</td>
<td>Incorporate land development codes regarding hardening shorelines (where appropriate) and developing more disaster resistant housing; design improvements utilizing climate change and sea level rise for the life expectancy of the structure.</td>
<td>Land development regulations, Florida Building Code, Beaches Coastal Construction Code</td>
<td>Public Works, Environmental Management, PCGL</td>
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<tr>
<td>GOAL 2: Minimize Coastal Flooding Losses in the CBHA, Coastal Storm Area and Hurricane Vulnerability Zone.</td>
<td>Preventive Measures</td>
<td>Objective 2.1: Limit permanent residential density increases, expenditure of public funds, and the location of critical facilities within the Coastal High Hazard Area (CBHA), the Coastal Storm Area (CSA) where applicable, and the Hurricane Vulnerability Zone (HVZ).</td>
<td>Develop appropriate land development regulations to implement coastal protection policies, implement goals, objectives, and policies in local comprehensive plans.</td>
<td>Comprehensive Plan, Land development regulations</td>
<td>Planning, Building, Rev. Review Services</td>
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<td>Preventive Measures</td>
<td>Objective 2.2: Enhance adopted building codes and floodplain management regulations.</td>
<td>Carry out obligations to participate in the National Flood Insurance Program and its associated CRS program.</td>
<td>Building code, land development regulations, comprehensive plan</td>
<td>Building, Rev. Review Services, Planning</td>
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<td>Preventive Measures</td>
<td>Objective 2.3: Develop a program which provides incentives to encourage coastal flood mitigation construction and design.</td>
<td>Investigate the feasibility of initiating floodplain requirements greater than 1 foot</td>
<td>Land development regulations</td>
<td>Building, Rev. Review Services</td>
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<td>Property Protection</td>
<td>Objective 2.4: Develop local programs that encourage and provide incentives to residents to alleviate their homes or businesses in the CBHA, Coastal Storm Area, or Hurricane Vulnerability Zone.</td>
<td>Participate in Flood Mitigation Assistance Program through sponsorships of applications for grant funds</td>
<td>Floodplain Management Plan</td>
<td>Floodplain Management Section, Building, Rev. Review Services</td>
</tr>
</tbody>
</table>

http://www.pinellaslms.org/pdf/Pinellas-LMS.pdf
Integrating Hazard Mitigation into the Comprehensive Plan

• Lee County Climate Change Resiliency Strategy (CCRS), J.W. Beaver, et al.

• “What Lee County Can Do...”

Integrating Hazard Mitigation into the Comprehensive Plan

• Summary and Commentary on Sea-Level Rise Adaptation Language in Florida Local Government Comprehensive Plans and Ordinances, Thomas Ruppert, Esq. & Alexander Stewart

• Florida Sea Grant

https://www.flseagrant.org/climatechange/coastalplanning/case-studies/
Integrating Hazard Mitigation into the Comprehensive Plan

- City of Satellite Beach
  Community Based Planning for Coastal Resiliency

Integrating Hazard Mitigation into the Comprehensive Plan

- DEO Division of Community Planning
- Adaptation Planning page

[Adaptation Planning - Planning for Coastal Flooding and Sea Level Rise]

1. Protection: Protection strategies involve “hard” and “soft” structurally defensive measures to mitigate the impacts of current and future flooding, such as seawalls or beach nourishment, in order to maintain existing development.
2. Accommodation: Accommodation strategies do not act as a barrier to inundation but rather, alter the design, construction, and use of structures to handle periodic flooding. Examples include elevating structures and improving wetlands that improve drainage or use natural areas to soak up or store water and runoff (e.g., green infrastructure).
3. Strategic Relocation: Strategic relocation involves the possible relocation of existing development to safer areas through voluntary or incentivized measures in populated, hazard-prone areas that reduce the intensity of development and eventually cause setbacks over time. Such options usually involve the transition of vulnerable land from private to public ownership, but may also include other strategies such as transfer of development rights, purchase of development rights, and rent agreements.
4. Avoidance: Avoidance involves anticipatory actions taken to direct new development away from vulnerable lands to safer areas. Examples include land conservation, conservation easements, transfer of development rights, and increased coastal setbacks.
5. Procedural: Procedural strategies aim to generate vulnerability and adaptation information, increase awareness of vulnerabilities and adaptation options, and/or incorporate such information into plans or policies. Examples include vulnerability assessments, community outreach and education.

Next Steps

- Exit Survey! – Please provide your feedback
- Peril of Flood Report – Mid-April
- Final Peril of Flood Workshop
  - Friday, May 5, 2017, 9:30 until 11:00 a.m.
  - at TBRPC
Thank you for your participation in today’s webinar!

Peril of Flood Workshops web page:
http://www.tbrpc.org/events/perilofflood/index.shtml

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