

# Countywide Vulnerability Assessment Phase II

## PROJECT OUTLINE

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# RESILIENT FLORIDA PLANNING GRANT



## PROJECT PURPOSE

The project will incorporate the necessary steps to meet the full requirements of a vulnerability assessment, including adding all critical assets outlined in 380.093 (F.S.) and modeling Intermediate-High sea level rise, rainfall-induced, and compound flooding scenarios. The project will also expand the exposure analysis completed in Vulnerability Assessment Phase I to include more public and private assets, study impacts to infrastructure, identify fiscal risks, and identify policy and regulatory actions to assist in updating the comprehensive plan.

## PROJECT COMPONENTS & OUTCOMES

### **TASK 1: Stakeholder Engagement and Public Outreach**

Inform and seek input from the community and BOCC (including internal staff) on the data collection efforts, modeling approach, modeling output, findings, and recommendations.

- Kick-Off Meetings
- General Workshops/Meetings
- Meetings with Elected Officials
- Other updated online communications tools

### **TASK 2: Data Collection and Preparation**

Conduct research and compile the data and metadata needed to perform the VA, based on the requirements as defined in Section 380.093, F.S. Three main categories of data are required to perform a VA: 1) critical and regionally significant asset inventory, 2) topographic data, and 3) flood scenario-related data.

- Technical report to outline the data and metadata compiled and findings of the gap analysis
- GIS files with appropriate metadata of the data compiled

### **TASK 3: Exposure Analysis**

Identify the depth of water caused by various flooding and sea-level rise across Pinellas County and illustrate the spatial extent of flooding using scenarios and standards

outlined in s. 380.093, F.S. The water surface depths (i.e. flood scenarios) used to evaluate assets shall include the following data: tidal flooding, current and future storm surge flooding, rainfall-induced flooding, and compound flooding, all as applicable, as well as the scenarios and standards used for the exposure analysis shall be pursuant to s. 380.093, F.S.

- draft VA report that provides details on the modeling process, type of models utilized, and resulting tables and maps illustrating flood depths for each flood scenario
- GIS files with results of the exposure analysis for each flood scenario as well as the appropriate metadata that identifies the methods used to create the flood layers.

#### **TASK 4: Sensitivity Analysis**

Perform the sensitivity analysis to measure the impact of flooding on assets and to apply the data from the exposure analysis to the inventory of critical assets created in the Exposure Analysis Task. The sensitivity analysis should include an evaluation of the impact of flood severity on each asset type and at each flood scenario and assign a risk level based on percentages of land area inundated and number of critical assets affected.

- Draft VA report that provides details on the findings of the exposure analysis and the sensitivity analysis, and includes visual presentation of the data via maps and tables, based on the statutory-required scenarios and standards
- Initial list of critical and regionally significant assets that are impacted by flooding.

#### **TASK 5: Final Vulnerability Assessment**

Finalize the VA report pursuant to the requirements in s. 380.093, F.S. and based upon the steering committee and public outreach efforts. The final VA must include all results from the exposure and sensitivity analyses, as well as a summary of identified risks and assigned focus areas. It should contain a list of critical and regionally significant assets that are impacted by flooding and sea level rise, specifying for each asset the flood scenario(s) impacting the asset.

- Final VA Report that provides details on the results and conclusions, including illustrations via maps and tables, based on the statutory-required scenarios and standards in s. 380.093, F.S.

- Final list of critical and regionally significant assets that are impacted by flooding. The list of critical and regionally significant assets must be prioritized by area or immediate need and must identify which flood scenario(s) impacts each asset.
- Electronic mapping data used to illustrate flooding and sea level rise impacts identified in the VA, to include the geospatial data in an electronic file format and GIS metadata
- A signed VA Compliance Checklist Certification

### **TASK 6: Peril of Flood Compliance**

The goal of this task will be to bring the County more fully into policy compliance with the Peril of Flood mandate in Section 163.3178(2)(f), F.S. .

- Draft resolution to update the County's Comprehensive Plan to create a redevelopment component of the Comprehensive Plan that addresses the requirements of the Peril of Flood mandate
- Draft ordinance amending land development code as required to ensure consistency with the updated comprehensive plan.
- Draft resolution and presentation to deliver to Pinellas County BOCC.

### **TASK 7: Adaptation Plan**

Under this task, the County will develop a set of conceptual adaptations strategies, in compliance with the Peril of Flood requirements, aligned with FDEP's Sea Level Impact Tool's adaptation strategies, and consistent with the Florida Adaptation Planning Guidebook, which will serve the County as a strategic guidance document for planning. This plan will integrate natural as well as engineered alternatives and will serve as strategic guidance to stakeholders to understand and prioritize these alternatives for the County to move forward. The plan will also include a list of prioritized projects for each asset class as defined in subsection 380.093(2), F.S., for consideration and implementation.

- A list of recommended projects, policies, and practices with the order of magnitude costs to be considered for funding and implementation
- Final Adaptation Plan or Report