

## Attachment 1

## SCOPE OF WORK

1. **GRANT AUTHORITY.** This Community Planning Technical Assistance grant is provided pursuant to section 163.3168, F.S., and Specific Appropriation 2224Q, Chapter 2017-70, Laws of Florida, to provide direct and/or indirect technical assistance to help Florida communities find creative solutions to fostering vibrant, healthy communities, while protecting the functions of important State resources and facilities.
2. **PROJECT DESCRIPTION:** Grantee shall develop *Infrastructure Protection Resources* for the City of Miami and Hallandale Beach (henceforth referred to as the *two communities*), both of which have a high risk of inundation from coastal flooding. This will be accomplished through comprehensive modeling of current flooding due to tidal extremes, likely future sea-level rise scenarios, and current and projected future storm surge inundation extents. Data collection and analysis will be supplemented by an overview of existing comprehensive plan deficiencies and previously published vulnerability assessments to provide a robust depiction of current conditions, projected future conditions, and adaptive capacity within the communities.

Grantee shall identify areas within the two communities susceptible to current and future flood risk. Grantee shall review and evaluate the two communities' existing comprehensive plan strategies and other implementation tools in terms of potential effectiveness in reducing flood risk, consistent with the *Peril of Flood* requirements set out in section 163.3178(2)(f), Florida Statutes. Grantee shall prepare comprehensive plan amendment(s) in support of the *two communities'* response to Peril of Flood.

3. **GRANTEE RESPONSIBILITIES:** To perform the tasks and timely provide DEO with the deliverables identified in this paragraph and the table in paragraph 5 below pursuant to the terms of this Agreement.

**A. Deliverable 1: Coastal Flood Risk Analysis**

**Part 1: The SFRPC will analyze tidal flooding conditions to identify tidal flooding hotspots within the two communities.**

Grantee shall:

- A. Compile maps and tables of NOAA historical high water level data in the region, including storm and 2017 King Tide data. Using these resources, the SFRPC will create a GIS map series overlaying observed extreme tide levels with the VDATUM MHHW surface in the region and for the two communities.
- B. Compile LiDAR surface elevation data for the region. Using the extreme tide level data (from A., above), and the LiDAR surface elevation data, the SFRPC will create a GIS map series of zoomed-in areas susceptible to tidal flooding (*hotspots*) within the two communities.

- C. Create a GIS map series depicting those areas within the two communities projected as susceptible to future flooding vulnerability through the addition of one additional foot of inundation, and two additional feet of inundation, to observed extreme tide levels.
- D. Create a GIS map series depicting current Federal Emergency Management Agency (FEMA) Flood Zone designations and Base Flood Elevation (BFE) for the two communities. The SFRPC will also model current and future storm surge from a Category 1 hurricane (with future storm surge based on at least one sea-level rise scenario). [Doesn't FEMA FIRM info, as described, already exist in GIS for these two communities?] [Is the idea here to apply modeled current and future storm surge to the FEMA flood zones and create maps illustrating the combined effects or is it intended to create discrete maps (and if so, why are they put together here in "D?")]

**Part 2: The SFRPC will provide a summary report in support of the *Infrastructure Protection Resources*.**

Grantee shall:

- A. Prepare a written assessment of both communities' existing comprehensive plan strategies and other implementation tools in terms of potential effectiveness in reducing flood risk, consistent with the *Peril of Flood* requirements set out in section 163.3178(2)(f), Florida Statutes.
- B. Assessment will include a minimum of four (4) examples of strategies, principles, and related engineering solutions and/or site development techniques that can reduce flood risk and/or losses to property in coastal areas resulting from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea level rise.

**B. Deliverable 2: Comprehensive Plan Amendments and Transmittal Public Hearing**

The SFRPC will prepare comprehensive plan amendment(s) addressing deficiencies in the two communities' responses to Peril of Flood.

Grantee shall:

- A. Obtain a letter of support from each of the two communities, indicating the local governments' willingness to assist in preparing and conducting a transmittal public hearing to consider the proposed comprehensive plan amendments that address the Peril of Flood requirements in section 163.3178(2)(f), Florida Statutes.
- B. Draft proposed comprehensive plan amendments that are consistent with section 163.3178(2)(f), Florida Statutes, and supported by the data and analysis produced in Deliverable 1.

C. Prepare a memorandum with recommendations for integrating the proposed comprehensive plan strategies into other related planning documents and implementation tools used by the two communities.

D. **DEO REVIEW OF PLAN AMENDMENTS PRIOR TO DELIVERABLE DUE DATE:** Grantee shall provide a copy of the proposed plan amendments to DEO for review and comment no later than ten (10) business days before the deliverable due date. Proposed plan amendments submitted to DEO as a deliverable under this agreement must address any comments provided by DEO under this paragraph.

E. Prepare correspondence to the two communities requesting that the local governments schedule a public hearing pursuant to sections 163.3184(3) and (11), Florida Statutes to consider transmitting the proposed comprehensive plan amendments for purpose of subsequent adoption.

F. Present the proposed comprehensive plan amendments at the transmittal public hearing (as referenced in D. above), if requested by the two communities.

4. **DEO RESPONSIBILITIES:** To receive and review deliverables and, upon acceptance of deliverables and receipt of a complete invoice, process payment pursuant to the terms of this Agreement.

5. **DELIVERABLES:** The specific deliverables, tasks, minimum level of service, due dates, and payment amounts are set forth in the following table:

Deliverables and Tasks	Minimum Level of Service	Payment Amount Not to Exceed	Financial Consequences
<p><b>Deliverable 1.</b></p> <p><b><u>Deliverable 1. Coastal Flood Risk Analysis</u></b></p> <p>Grantee shall analyze flooding conditions to identify tidal flooding hotspots within the two communities in accordance with paragraph 3.A., Part 1., above.</p>	<p>Completion of Deliverable 1, Part 1, as evidenced by submission of all of the following:</p> <ol style="list-style-type: none"><li>1. Maps and tables of NOAA historical high water level data in the region.</li><li>2. GIS map/map series overlaying observed extreme tide levels with the VDATUM MHHW surface in the region and for the two communities.</li></ol>	<p>\$12,500.00</p>	<p>As provided in paragraph 9 below.</p>

<p><b><u>Deliverable 1: Part 2 Comprehensive Plan Analysis</u></b></p> <p>Grantee shall prepare a summary report in support of the Infrastructure Protection Resources in accordance with paragraph 3.A., Part 2., above.</p> <p>Deliverable due date: January 26, 2018</p>	<ol style="list-style-type: none"> <li>3. LiDAR surface elevation data for the for the two communities</li> <li>4. GIS map series of zoomed-in areas currently susceptible to tidal flooding.</li> <li>5. GIS map series of the areas projected as susceptible to future flooding.</li> <li>6. GIS map series depicting most recently published Federal Emergency Management Agency (FEMA) Flood Zone Flood Insurance Rate Map panel information, including flood zone designations, and base flood elevations, for the communities, as well as maps and data showing the current Coastal High Hazard Area CHHA (analysis will be done using the new SLOSH superbasin) and the CHHA modelled at 1 and 2 feet of sea level rise.</li> </ol> <p>Grantee shall submit copies of all required documentation identified above on paper or electronically in MS Word or PDF format, and, if applicable, all maps identified above on a compact disc in PDF format with ArcGIS compatible shapefiles. [These seems to have gotten out of place?]</p> <p>Completion of Deliverable 1: Part 2, as evidenced by completion of each of the following:</p> <ol style="list-style-type: none"> <li>1. Written assessment of communities' existing comprehensive plan</li> </ol>		
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	<p>strategies. The assessment will include four (4) examples of strategies, principles, and related engineering solutions and/or site development techniques that can reduce flood risk and/or losses to property in coastal areas.</p>		
<p><b><u>Deliverable 2. Comprehensive Plan Amendments and Transmittal Public Hearing</u></b></p> <p>Grantee shall prepare comprehensive plan amendment(s) addressing deficiencies in the two communities' responses to the Peril of Flood in accordance with paragraph 3.B.above.</p> <p>Deliverable due date: May 31, 2018</p>	<ol style="list-style-type: none"> <li>1. Letters of support from City of Miami and Hallandale Beach.</li> <li>2. Draft proposed comprehensive plan amendments for the two communities, revised following comments from DEO and the two communities.</li> <li>3. Provide a copy of the memorandum of recommendations for integrating the risk reduction strategies into other related planning documents and implementation tools.</li> <li>4. Provide a copy of the correspondence to the two communities' requesting that the local government schedule a public hearing to consider transmitting the proposed comprehensive plan amendments.</li> <li>5. Provide a copy of the public hearing meeting notice and summary or minutes for each public hearing in which the proposed comprehensive plan amendments were considered; or, provide a copy of correspondence from any of the two communities declining the request to consider the amendments.</li> </ol>	\$12,500.00	As provided in paragraph 9 below.

	<p>Grantee shall submit copies of all required documentation identified above on paper or electronically in MS Word or PDF format, and, if applicable, all maps identified above on a compact disc in PDF format with ArcGIS compatible shapefiles.</p>		
<p><b>Total Payment Amount Not to Exceed: \$25,000.00</b></p>			