



City of Hallandale Beach City Commission Agenda Cover Memo

Hallandale Beach
PROGRESS. INNOVATION. OPPORTUNITY.

Meeting Date:	September 18, 2019		Item Type: <i>(Enter X in box)</i>	Resolution X	Ordinance	Other
Fiscal Impact: <i>(Enter X in box)</i>	Yes	No	Ordinance Reading: <i>(Enter X in box)</i>	1st Reading		2nd Reading
	X			Public Hearing: <i>(Enter X in box)</i>	Yes	No
Funding Source:	Florida Department of Environmental Protection Resilient Coastlines Grant		Advertising Requirement: <i>(Enter X in box)</i>		Yes	
						X
Account Balance:	\$66,000		Quasi-Judicial: <i>(Enter X in box)</i>	Yes		No
						X
Project Number :			RFP/RFQ/Bid Number:			
Contract/P.O. Required: <i>(Enter X in box)</i>	Yes	No	Strategic Plan Priority Area: <i>(Enter X in box)</i>			
	X					
			Quality <input checked="" type="checkbox"/>			
			Vibrant Appeal <input type="checkbox"/>			
Sponsor Name:	Greg Chavarria, City Manager		Department: Public Works	James Sylvain, P.E., Public Works Director		

Short Title:

A RESOLUTION OF THE MAYOR AND CITY COMMISSION OF THE CITY OF HALLANDALE BEACH, FLORIDA, AUTHORIZING CONTRACT WITH REYNOLDS, SMITH AND HILLS, INC TO CONDUCT VULNERABILITY ASSESSMENT AND ADAPTATION PLAN UTILIZING GRANT FUNDS OF SIXTY-SIX THOUSAND (\$66,000) DOLLARS; AND PROVIDING FOR AN EFFECTIVE DATE.

Staff Summary:

Summary:

The City of Hallandale Beach (City) is seeking authorization to enter into a contract with RS&H under Section 23-8 (5) “unique circumstances” of our Procurement Code to conduct a Vulnerability Assessment and Adaptation Plan (VAAP). The VAAP will examine flooding, groundwater resources, shoreline change, and the costs and benefits associated with risks and related resilience strategies. The City will utilize grant funds provided by the Florida Department of Environmental Protection in the amount of \$66,000 for this purpose.

Background:

Since at least 2016, the City of Hallandale Beach has committed to resilience in the face of climate change. On November 1, 2016 the City accepted the Southeast Florida Regional Climate Change Compact’s Unified Sea-Level Rise Projections (Exhibit 2). On August 16, 2017 the City passed a Resolution committing the City to the Paris Climate Accord and striving to meet its goals and objectives (Exhibit 3). On May 16, 2018 the City adopted the Sustainability Action Plan, which includes projects to assess climate change vulnerability and mitigate greenhouse gasses (Exhibit 4). On March 6, 2019 the City Commission adopted a Resolution committing to the greenhouse gas emission reduction goals in the UN Intergovernmental Panel on Climate Change Climate Change Special Report on Global Warming of 1.5°C (Exhibit 5).

The City has been subject to three vulnerability assessments in the past decade: a 2010 Broward County Vulnerability assessment, a 2015 Regional Vulnerability Assessment by the Southeast Florida Regional Climate Change Compact, and a 2017 Vulnerability assessment done by the South Florida Regional Planning Council. Despite the abundance of reports, the City lacks a vulnerability assessment made with the best data available and examining more than one hazard and projection. The vulnerability assessment done by Broward County is outdated due to great improvements in modeling and the resolution of data. The SFRPC assessment focuses on the compound risk of category 1 hurricane storm surge and sea-level rise only. Each of the previous vulnerability assessments only examine sea-level rise and do not provide analysis on changes in precipitation, groundwater resources, or flood frequency. This is likely because each of these vulnerability assessments have been done pro-bono as part of a greater scope of work best suited for the larger governmental entity. The City of Hallandale Beach needs to conduct their own Vulnerability Assessment to suit their own needs as a community.

The Sustainability Action Plan includes the “Develop a Vulnerability/Adaptation Assessment” (VAAP) project slated for 2019. To fund this project, the City applied for funding with the Florida Department of Environmental Protection’s Resilient Coastlines program. On June 21, 2019 the City was notified of the project’s award and approval.

With an updated and extensive VAAP, the City will be able to identify areas of risk and include capital projects to address adaptation needs in a timely manner. This VAAP will include sea-level rise, flood frequency predictions, flood economic loss predications, assessment of groundwater changes, projected shoreline changes, changes in precipitation, and adaptation strategy suggestions.

Current Situation:

Due to the 1-year turnaround time for this grant, the traditional procurement process is not feasible. Thus, Staff is requesting City Commission authorize entering a contract with RS&H to conduct the VAAP under Section 23-8 (5) "unique circumstances" of our Procurement Code. RS&H was previously contracted by the City to produce the Sustainability Action Plan and included optional services for the VAAP. As such, the firm already has data available for the VAAP analysis and an understanding of past and present resilience actions and issues. This facilitates the completion of the VAAP within the allowed one-year period of performance of the grant.

All work will be funded by the \$66,000 of grant funds provided by the Florida Department of Environmental Protection for this purpose. The Vulnerability Assessment and Adaptation Plan will examine flooding, groundwater resources, shoreline change, and the costs and benefits associated with risks and related resilience strategies. The VAAP will be created utilizing best available data and modeling techniques as well as stakeholder engagement to produce a publically-supported plan to make Hallandale Beach more resilient.

The VAAP scope of work takes place in an eight (8) month time period. All deliverables must be completed by April 30, 2020. The project will be managed by the City's Green Initiatives Coordinator. Compliance and financial oversight will be provided by the City's Grants Office.

Deliverables include:

1. Flood Hazard Mapping (sea-level rise, tidal, nuisance, storm surge recurrence for 10-year, 100-year, and 500-year flood conditions).
2. Flood Vulnerability/Loss Assessment
3. Qualitative Assessment of Groundwater Changes
4. Future Precipitation Analysis
5. Projected Changes in Shoreline Recession
6. Initial Strategy Development and Evaluation

Consultants will utilize a 15-foot horizontal resolution digital elevation model, most recent SLOSH model basins, and sea-level rise projections from the Southeast Florida Regional Climate Change Compact's 2015 Unified Projections. Consultants will utilize three sea-level rise scenarios: 0.5 foot increase from today (estimated 2030), 1 foot (estimated 2040), and 2 feet (estimated 2060). Sea-level rise will also be shown compounded with flood hazards as listed in

Deliverable 1 above. Flood scenarios will be depicted through cartographic maps which show flood depth as well as extent.

Direct economic benefits are not estimated as they will depend on the specific recommendations to be developed and require implementation of the resulting projects. However, a recent study¹ by the National Institute of Building Sciences found that every \$1 spent on pre-disaster mitigation saves \$4-7 in disaster relief. Completing the assessment will also help lower the City's FEMA CRS Score, reducing the flood insurance premiums paid by residents through the National Flood Insurance Program.

Planning for climate change and the related impacts of sea-level rise is best done as a data-driven process with ample stakeholder engagement. This VAAP will establish a stakeholder-vetted prioritized list of projects which the City can take on to reduce its vulnerability and increase overall resilience. The City will also have access to ample and Hallandale-specific vulnerability information which can be used to guide programs, education, outreach, sustainability projects, and potential Human Services work.

Fiscal Impact:

The Florida Department of Environmental Protection has granted the City \$66,000 to complete this project. There is no additional fiscal impact.

Why Action is Necessary:

The grant's timeline does not allow enough time for the City to conduct a traditional competitive bidding process. Pursuant to Chapter 23, Section 23-8, Unique Circumstances, the City Commission may find unique circumstances to establish that competitive bidding is not in the best interest of the City.

Proposed Action:

Staff recommends the City Commission approve the attached Resolution authorizing the City Manager to enter a contract with RS&H under "unique circumstances" for the purpose of the VAAP.

Attachment(s):

- Exhibit 1 – Resolution
- Exhibit 2 – Resolution (Unified Projections)
- Exhibit 3 – Resolution 17-357 (Paris)
- Exhibit 4 - Resolution 2018-042

¹ National Institute of Building Sciences, Natural Hazard Mitigation Saves: 2017 Interim Report. December 2017.

Exhibit 5 - Resolution 2019-021
Exhibit 6 - Grant Proposal
Exhibit 7 - RS&H Executed Contract