

**STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
GRANT WORK PLAN
DEP AGREEMENT NO.: CM936**

ATTACHMENT 3

Project Title: Fernandina Beach Downtown Waterfront Resiliency Master Plan

Grantee

Organization Name: City of Fernandina Beach
Chief Elected Official or Agency Head: Dale L. Martin
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Project Manager

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Attachment 3, DEP Agreement #: CM936

1 of 5

FEID No.: 59-6000317

DUNS No.: 079192274

Project Summary

Location: Downtown Fernandina Beach Waterfront

Project Summary: The *Fernandina Beach Downtown Waterfront Resiliency Master Plan* proposed within this funding request would be to enable Fernandina Beach to efficiently and effectively plan future infrastructure investments to ensure the preservation and protection of our historic coastal downtown area from the effects of rising sea levels. The Plan would be comprised of data, analysis, and recommendations to enable Fernandina Beach to systematically understand and prepare for the impacts of existing and future downtown flooding which results from high-tide events, storm surge, flash floods and sea level rise combined with stormwater runoff and subsidence hazards. Furthermore, the completed multi-year ***Fernandina Beach Downtown Waterfront Resiliency Master Plan*** will integrate new waterfront resiliency planning with existing City of Fernandina Beach waterfront planning projects, to produce one highly-actionable multi-year plan which recommends best practices and design, phases of project completion, funding requirements and proposed funding mechanisms, public outreach and communication requirements, and overall recommended policy, capital and comprehensive plan changes, for each project or phase defined within the Plan.

Project Description: As it has been since the 19th century, the City of Fernandina Beach is working hard to be a beautiful place to visit and live in the years to come. Stabilizing the riverfront shoreline to protect our historic, natural, cultural, and economic resources is a key component toward that goal. In 2016, Hurricane Matthew significantly damaged the City's marina and the related storm surge inundated several downtown blocks and buildings. While Hurricane Irma's effect a year later was less significant, both storms re-confirmed concerns detailed in previous reports to City officials: but for the grace of an eastward shift by Hurricane Matthew and a westward shift by Hurricane Irma, downtown Fernandina Beach would have suffered greatly, likely including the hundreds of historic structures located within blocks of the Fernandina Harbor Marina. As the report *Vulnerability Assessment: City of Fernandina Beach* discusses, "Flooding and storm surge still present a very significant threat to the City and its assets." The enclosed 2015 reports, *Shoreline and Resiliency Planning* and *Natural Hazard Adoption and Resiliency*, describe the challenges to Fernandina Beach associated with specific natural disasters (such as hurricanes) and long-term environmental trends (tidal surges and sea level rise). The near-misses of recent storms have raised the awareness and urgency that the City must prepare for and seek resiliency and mitigation options to address the unrelenting power of water.

In Nassau County's Local Mitigation Strategy (LMS), an evaluation and planning document specific to addressing strategies to mitigate Sea Level Rise in waterfront areas remains the #1,

yet unfunded, project. Fernandina Beach has an array of disparate resilience planning documents that require integration and inclusion of additional data to serve for comprehensive planning. Before proceeding with any new resiliency construction improvements on our downtown waterfront district, the City requires the completion of a comprehensive plan that builds upon various local resilience documents, integrates current coastal water and weather projections, and provides recommendations for improvements that will meet the stormwater and coastal challenges of the decades ahead.

Technical Needs and Approach:

Before proceeding with any construction improvements, the City seeks to ensure that investments made are those which adequately serve to protect our historic and cultural resources effectively. Requested components of this study will (at a minimum) include the following:

- **Flooding Assessment:** Summary of flooding problems, identified causes, and categorized potential flood mitigation measures. Consideration of the type of flood event should be addressed to provide recommended actions for nuisance flooding, intermediate flooding, and extreme flooding.
- **Subsidence Hazards and Sea Level Rise:** Examination of existing conditions resulting in subsidence within the study area and impact of sea level rise projections through 2060.
- **Mitigation Measures:** A feasibility study of the identified mitigation measures as a solution to the identified problems and analysis of any existing regulatory challenges stemming from the City's Comprehensive Plan or Land Development Code. Study shall take existing infrastructure into account including Front Street, marina and railroad.
- **Data Review:** Consideration of flooding, subsidence, and sea level rise within the context of cultural and natural resources and any repetitive loss structures within the study area. Existing infrastructure and planned improvements shall be evaluated as well as studies and conceptual plans, including:
 - Fernandina Harbor Marina's Failing Seawall
 - Vulnerability Assessment: City of Fernandina Beach
 - 2017 City of Fernandina Beach Historic District and CRA within a Special Flood Hazard Area
 - 2017 GAI Stormwater Masterplan
 - Waterfront Stormwater Discharge Points
 - Shoreline and Resiliency Planning
 - Natural Hazard Adoption and Resiliency
 - Waterfront Park Schematic Plans
 - Parking Lot B – Construction Drawings
 - Alachua Street RR Crossing 90% Construction Drawings
 - Railroad crossing safety upgrades
 - Proposed Marina Northern Expansion
 - Expansion of mooring field
 - North Attenuator / Fuel Dock repair
 - Attenuator replacement

- Proposed realignment of South Marina basin
- Dredging maintenance operations

- **Community Involvement:** Consultant shall and form and organize meetings of a steering committee to provide guidance on goals and objectives. Consultant shall design and organize public outreach and assist City staff with implementation. Existing citizen groups shall be engaged to solicit input on mitigation recommendations and potential impacts.
- **Methods:** Define and analyze costs and benefits of mitigation solutions that involve structural design or alteration and incorporate existing schematic engineering plans for Front Street and waterfront park construction.
 - A subcomponent of the study is the need for a multi-modal feasibility analysis and concept renderings of converting existing two-way east/west streets on Ash Street and Alachua Street to one-way streets to obtain more on-street parking options and recommendations with renderings for North and South Front Street traffic flow. The sub-element of the planning document will serve to promote conditions for a safe and lively connection to the waterfront where pedestrians, bicyclist, and all users can feel safe and comfortable while minimizing intermodal conflicts.
- **Final Recommendations:** Including concept renderings and impact analysis on existing structures for long-term flood protection with an approach for phasing of improvements in connection with the City's established waterfront park plans. Recommendations should include a schematic level landscape plan specific to the recommended mitigation strategies. Any policy level changes specific to the City's Comprehensive Plan or Land Development Code to address recommended approaches should be provided. A proposed implementation schedule and capital improvement plan shall be provided, as well as a summary of level of protection provided for each phase.
- **Funding Options:** A summary of the opportunities that exist for the City to pursue grants and opportunities for public-private partnerships to support City funding for implementation of recommended mitigation measures. An analysis and recommendation concerning special assessment or incentive for privately owned waterfront property shall be included. Summary of grants shall include FEMA Flood Mitigation Assistance and Pre Disaster Mitigation, U.S. Army Corps of Engineers Continuing Authority Programs, SJRWMD REDI and Innovative Projects Cost Share programs.

Total Budget Summary:

AGREEMENT TOTAL	\$ 35,700
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Categories	Task 1	TOTAL BY CATEGORY
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Salaries	\$	\$
Fringe	\$	\$
Contractual	\$35,700	\$ 35,700
Indirect	\$	\$
SUB-TOTAL BY TASK	\$35,700	\$ 35,700

Total Project Timeline: The tasks must be completed by the corresponding task end date and all deliverables must be received by the designated due date. *Delete any rows that are not applicable.*

Task/ Deliverable No.	Task or Deliverable Title	Task Start Date	Task End Date	Deliverable Due Date	Task Funding Amount
1a	Flooding and SLR Assessment	08/30/2018	12/31/2018		\$8,925
1b	Data Review and Mitigation Evaluation	08/30/2018	3/31/2019		\$8,925
1c	Community Outreach	12/31/2018	6/30/2019		\$8,925
1d	Final Report			08/30/2019	\$8,925

Tasks and Deliverables

Task 1

Title: Waterfront Resiliency Master Plan Preparation

Description: Evaluation, study and mitigation planning to provide recommendations for waterfront Resiliency

Deliverable: Final Master Plan document

Due Date: September 30, 2019

Task 1 Funding Amount: \$35,700

Performance Measure: The Department will review the deliverable(s) to ensure it meets the specifications provided in the Task Description, above. *Delete any rows that are not applicable.*

Budget for Task 1:

Category	Grant Funds
Contractual:	\$ 35,700
TASK TOTAL:	\$35,700