STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
GRANT WORK PLAN
DEP AGREEMENT NO.: CM743

ATTACHMENT 3

Project Title: Community Based Resiliency in The City of Cocoa

Grantee

Organization Name: City of Cocoa
Chief Elected Official or Agency Head: Henry U. Parrish III
Title: Mayor
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City: Cocoa
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Project Manager

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Fiscal Agent

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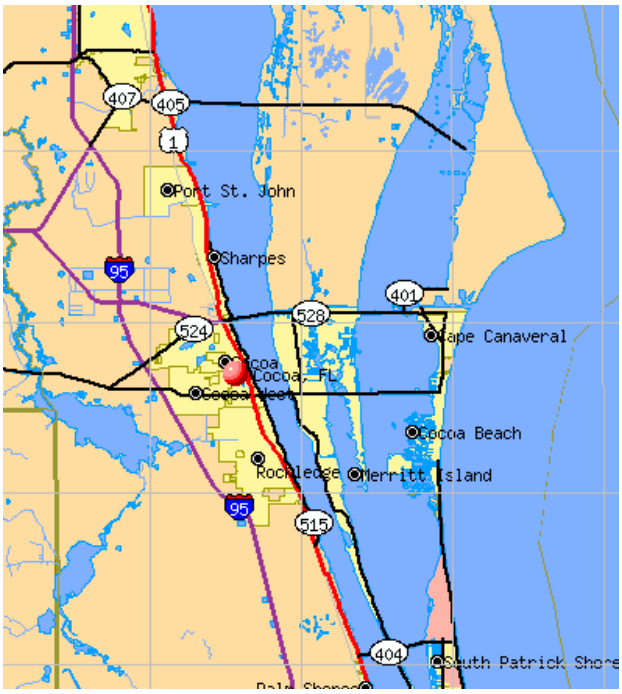
Mailing Address for Warrant (if other than the Grantee address):

FEID No.: 59-6000292

DUNS No.: 079195608



Location:
This project will take place in the City of Cocoa which is located along the intercoastal waterway of Brevard County, Florida. The City is within proximity to Cape Canaveral, Port Canaveral, Cocoa Beach, NASA, Patrick Air Force Base and Canaveral Air Station located north of Patrick Air Force Base. US 1, SR 528 and SR 520 are major thoroughfares and emergency evacuation routes that run through the City of Cocoa resulting in the City serving as the foci for evacuation, workforce and recreational access between the barrier islands, the mainland, Brevard County, Orlando and beyond. A more resilient Cocoa is crucial to the safety and economic vitality of Central Space Coast residents, business, and visitors.

Project Description:
The primary goals of this proposal are to educate and engage Cocoa's residents and businesses in the conversation of resiliency and assess impacts from sea level rise, flooding and surge. The East Central Florida Regional Planning Council will work with the City to develop educational visualizations and facilitate engagement opportunities relevant to resiliency and the future of the City. This innovative engagement and education process, combined with an assessment of the City's vulnerabilities, will guide the decision-making process for future development, infrastructure projects and programs to assist local economic growth and business resilience. This proposal is the first phase of a 4-step vision which includes the development of a "Resiliency/Disaster Preparedness Plan for Small Businesses", development of Adaptation Action Areas and related comprehensive plan goals, policies and strategies and the creation of a Sustainability Resiliency Plan. Through this grant, the project team will:

1) Conduct a vulnerability analysis and develop GIS Visualizations for education and engagement as related to sea level rise, frequent or "nuisance" flooding and storm surge;
2) Engage the residents and businesses in the City through online survey and workshops to enhance education on vulnerabilities and obtain input on priorities, policies, and resiliency and adaptation strategies for implementation;
3) Use the REMI model to estimate the economic impacts business loss due to periodic flood and compare to a scenario that implements an adaptation measure as determined through the project process.
4) Develop policies and recommendations for the City to consider for adoption into the comprehensive plan and implementation across various City departments

Community literacy and engagement is important to becoming more resilient along with understanding vulnerabilities and the capacity that current plans and policies have in planning for and implementing measures and projects that enhance the community's resiliency and economic sustainability. For this reason, the ECFRPC will focus on increasing climate literacy, assessing capacity and identifying vulnerabilities within the City through dissemination of educational materials, community workshops, on-line survey opportunities, GIS analysis and visualization techniques.

This proposal is timely in that it will provide necessary information and engagement opportunities to enhance the conversation with businesses in the community and begin to provide direction for the City

staff and administration to help support the economic integrity of these businesses when faced with a natural disaster or nuisance flooding. The efforts of this proposal will tie directly into the efforts of the City as they begin the discussion of how to help arm businesses with the appropriate tools and knowledge to be better prepared. This process and the public engagement process aims to transfer the ideas, lessons learned and methodology established in the successful Florida Department of Environmental Protection Coastal Partnership Initiative grant funded pilot project "Community Resiliency in the City of Satellite Beach" to the City of Cocoa, as well as other activities occurring simultaneously in the region. Through the FDEP CPI grant used in the City of Satellite Beach, the ECFRPC developed essential and rewarding partnerships which have moved other resiliency projects through the City of Satellite Beach. The proposal provides opportunity to create even more relationships with critical assets such as KSC, Port Canaveral, PAFB and others.

Through this proposal, ECFRPC will coordinate with the City to participate in at least 3 workshops with stakeholders, businesses and staff to discuss opportunities, vulnerabilities, and other needs which will be used for inclusion in the MetroQuest parameters. It is proposed to develop two surveys with one focusing on main stakeholder feedback and the second geared specifically for the business community. The outcome of the engagement surveys will help the City to develop adaptation strategies, priorities and actions and begin taking actionable steps. The final workshop will provide an overview of the survey results and potential strategies and next steps as well as other pertinent topics that may emerge during the engagement process.

The project team, at a minimum, will utilize the UF GeoPlan Sea Level Sketch Planning Tool to determine impacts to the City relative to the various rate curves. The team will assess the rate curves as identified by the city which will include at a minimum the 2013 USACE High curve. With direction and input from the stakeholders, and based on input from the East Central Florida Regional Resiliency Action Plan, it may be deemed necessary to also assess the NOAA 2017 Intermediate High and High rate curves or the 2012 NOAA curves. The team will also utilize other data from NOAA to assess the potential for frequent or "nuisance" flooding as well as modeling from the Tampa Bay Regional Planning Council which evaluates new storm surge impacts as sea levels rise. A vulnerability assessment using these data and parameters will evaluate facilities critical to City function, health and safety, and evacuation support, as well as all roadway facilities, business impacts, land use and social characteristics to help identify social vulnerabilities to better assist in public services and response. Findings will be compiled into a final report to include tables, charts, maps and text.

Understanding the economic impacts of increased flooding on businesses and the potential impacts of implementing adaptation scenarios is a necessary step to validate appropriate adaptation strategies that provide the greatest return and long-term solutions. The ECFRPC will use the REMI Model to assess the economic impacts of business interruption or loss from flooding and, through the outreach process results, work with the City to determine at least one adaptation scenario to analyze through economic modeling to assess retained, gained and lost revenue and other economic impacts associated with job loss/retention, new land use, and other parameters determined to be appropriate for the strategy.

To be truly effective to engage and educate the public about vulnerabilities and to use the information in messaging, visualization of the information in an easy to understand format is important. This is where ESRI's story maps can be utilized. The project team will create at least one-story map to tell the story of the data, analysis, findings and strategies. Additional visualization techniques may be developed.

Finally, using the resiliency portal developed by the ECFRPC and through other grant mechanisms, www.perilofflood.org, the final reports and links to the story maps will be made available for easy access to stakeholders and other communities.
The final deliverables will consist of:

- Vulnerability assessment report with maps, figures and charts focused on sea level rise, nuisance flooding and surge
- Summary of public engagement findings and processes
- Policy and recommendation report to include recommendations and draft policies for implementation by the City
- Economic impact findings report

Total Budget Summary:

	Grant
AGREEMENT TOTAL	**$ 77,200**

TOTAL GRANT FUNDS

Categories	Task 1	TOTAL BY CATEGORY
Contractual	$77,200	$77,200
SUB-TOTAL BY TASK	$77,200	$77,200

All materials created will include DEP, NOAA, and FCMP logos. A sample or electronic version is required to be sent to angel.baratta@floridadep.gov or 3900 Commonwealth Blvd, MS 235, Tallahassee, FL 32399-3000, to receive prior approval from the FCMP Administrator. (See paragraph 27(A) of the grant agreement for details.)

PROJECT TIMELINE: The tasks must be completed by the corresponding task end date and all deliverables must be received by the designated due date.

Task	Deliverable	Start Date	End Date	Deliverable Due Date
1	Vulnerability Assessment	10/1/2018	6/1/2019	6/15/2019
1	Economic impact findings report	10/1/2018	6/1/2019	6/15/2019
1	Public Meetings (agendas, sign ins, presentations, and summaries) and Online Survey Results	10/1/2018	6/1/2019	6/15/2019
1	Policy and recommendation report to include recommendations and draft policies for implementation by the City	10/1/2018	6/1/2019	6/15/2019

TASKS AND DELIVERABLES

Task 1 Description: Public Engagement, Assessments and Policy Development to include the following

1) Conduct a vulnerability analysis and develop GIS Visualizations for education and engagement as related to sea level rise, frequent or "nuisance" flooding and storm surge;
2) Engage the residents and businesses in the City through online survey and workshops to enhance education on vulnerabilities and obtain input on priorities, policies, and resiliency and adaptation strategies for implementation;
3) Use the REMI model to estimate the economic impacts business loss due to periodic flood and compare to a scenario that implements an adaptation measure as determined through the project process.

4) Develop Peril of Flood and Adaptation Actin Area policies and recommendations for the City to consider for adoption into the comprehensive plan; and
5) Create an Action Plan for the City to implement through various departments and programs.

Staff will coordinate with the City to participate in at least 3 workshops with stakeholders and staff to discuss vulnerabilities and gather input concerning issues, opportunities, and needs which will be used for inclusion in the MetroQuest parameters. The final workshop will provide an overview of the survey results, potential strategies and policy language and next steps as well as other pertinent topics that may emerge during the engagement process. The outcome of the engagement tool will help the City to develop proposed strategies, priorities and policies to address resiliency and actionable steps. These will form the core of the presentation at the final workshop.

The project team will conduct a vulnerability assessment to sea level rise, frequent or "nuisance" flooding as well as modeling from the Tampa Bay Regional Planning Council which evaluates new storm surge impacts as sea levels rise. A vulnerability assessment using these data and parameters will evaluate facilities critical to City function, health and safety, and evacuation support, as well as all roadway facilities, business impacts and land use and social characteristics to help identify social vulnerabilities to better assist in public services and response. Findings will be compiled into a final report to include tables, charts, maps and text.

The ECFRPC will use the REMI, Inc. Model to estimate the economic impacts of business loss due to periodic flood and compare to a scenario that implements an adaptation measure as determined through the project process. Findings will be compiled into a final report to include tables, charts, maps and text. The project team will create at least one (1) Storymap to tell the story of the data, analysis, findings and strategies. Additional visualization techniques may also be used in addition to the story map.

Deliverables: A copy of all subcontractor agreements with the City of Cocoa for this project. The final project report will include summaries of the public engagement process; major findings; policy and strategy recommendations; vulnerability assessment, and economic impact analysis. Appendixes will contain workshop agendas, sign-in sheets, survey results, maps, GIS metadata, and other relevant graphics, and data. The final report and links to the Storymap will also be available on the Peril of Flood website.

Due Date/Frequency/Performance Period: June 15, 2019

Performance Measure: The Department will review the deliverable(s) to ensure it meets the specifications provided in the Task Description, above.

Funding for Task:

Category	Grant Funds
Contractual:	$77,200
TASK TOTAL:	**$77,200**