

**STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
GRANT WORK PLAN
DEP AGREEMENT NO.: R2133**

ATTACHMENT 3

I. TITLE PAGE

1. PROJECT TITLE: Vulnerability Study Phase I

2. GRANTEE Contact Information:

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3. GRANT MANAGER Contact Information:

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II. WORK PLAN

9. **PROJECT SUMMARY:** In collaboration with the City of Port St. Lucie, City of Fort Pierce, and St. Lucie Village, St. Lucie County is proposing to develop a vulnerability assessment assist in analyzing water issues, critical buildings and infrastructure, historic resources and vulnerable populations. A multi-jurisdictional steering committee will be established to guide the process. Lectures and discussion sessions will be held to engage community stakeholders. This assessment will form the foundation of an evidence-based, strategic resilience plan that systematically prioritizes and develops adaptive strategies to address areas of vulnerability.
10. **PROJECT DESCRIPTION:** In collaboration with the City of Port St. Lucie, City of Fort Pierce, and St. Lucie Village, St. Lucie County is proposing to develop a vulnerability assessment to assist in analyzing potential impacts of climate change. The project will include an assessment of water resources (quantity, quality, erosion, storage), critical buildings and infrastructure, historic resources and vulnerable populations. This vulnerability assessment will form the foundation of an evidence-based, strategic resilience plan that systematically prioritizes and develops adaptive strategies to address areas of vulnerability. Resiliency will be developed through the creation of a robust and integrated communication and collaboration network of shared information with a major strength being the ability to engage and build these four assessments/analyses as one project.

St. Lucie County is located along the Atlantic Ocean in South-Central Florida and encompasses 688 square miles. With 21 miles of coastline, and the St. Lucie River and Indian River Lagoon within its boundaries, natural resources have defined the culture of this community throughout its history. St. Lucie County is rich in natural resources and cultural diversity, with African Americans making up 20 percent and Hispanic Americans 18 percent of the county's 313,000 population.

The county also has its challenges. Between 2000 and 2010, it was one of the fastest growing counties in the nation, adding more than 80,000 people during that time and putting strain on natural resources and infrastructure. In addition, poverty levels are high in St. Lucie with one in five families classified as food insecure, and about 13.4 percent of the population living below the poverty line according to the 2010 census. Additionally, it should be considered that the 2010 median income for a St. Lucie household was \$36,363, or approximately \$20,000 less than the state median household income.

St. Lucie County, the City of Port St. Lucie, City of Fort Pierce and St. Lucie Village recently hosted a Community Resilience Planning Workshop for elected officials and staff. This full-day workshop included expert speakers covering a variety of issues from the local government perspective. The workshop was intended to provide staff from all jurisdictions with a greater understanding of resilience planning to facilitate the next steps in the process. The county chair and three mayors addressed the workshop exemplifying their support for resiliency efforts in our area.

A formal agreement between the county and municipalities to work collaboratively on resilience planning and assemble a multi-jurisdictional steering committee is expected to be completed in late 2019. This steering committee will initially be tasked with reviewing physical and social areas of vulnerabilities and developing the scope of services for consultant services. Because it is essential to coordinate with community stakeholders during the development of this assessment/analysis the Steering Committee will also be tasked with identifying and making recommendations for stakeholder additions to committee and/or subcommittees to assist in determining several aspects of the project during the evolution of the assessment/analyses.

The intent of this preemptive vulnerability assessment and analysis is to provide a foundation to develop and implement a community resilience plan looking over a 30 to 50-year horizon and integrate resiliency and adaptive strategies into planning documents within various sectors of government. This project is unique in that it will focus on identification of hazards, potential impacts, and vulnerabilities at the whole community level, including the county and its municipalities. This project will result in a detailed and comprehensive hazard and vulnerability assessment and analysis for St. Lucie County, Port St. Lucie, Fort Pierce and St. Lucie Village that identifies potential threats to critical natural and man-made infrastructure, water quality, quantity, and storage, historical assets, and vulnerable populations. The assessment will include recommended actions and examine the capacity within St. Lucie to implement adaptive strategies.

11. PROJECT NEED AND BENEFIT:

A. Explain the demonstrated need, which the project addresses. Central and Southeast Florida coastal communities are highly vulnerable to sea level rise due to the peninsular geomorphology and low topography. While not yet experiencing the level of severity being seen in South Florida, St. Lucie is experiencing a number of changes locally that collectively serve as a bellwether requiring attention to evidence-based planning and adaptive strategies. Over the past several years, St. Lucie has seen significant increases in flooding and erosion, an influx of invasive plant and wildlife species, and an increase in insect populations that can carry vector-borne diseases. As mentioned in the project description, the county also has its challenges of development pressures, aging infrastructure, and a high level of poverty and low-income families.

However, in the ever constricting and fiscally strained environments in which local governments must operate, planning, constructing, and preserving resilience assets can be expensive and time consuming. Preparedness and mitigation activities and practices must be strategic and holistic in approach to remain viable and sustainable in application. Coupling projects together to address multiple issues is efficient and fiscally beneficial.

This assessment is an example of strategic planning that is an efficient use of funds by conducting several research elements at the same time. This project will help build individual and collective resiliency by taking this collaborative approach.

St. Lucie, Port St. Lucie, Fort Pierce and St. Lucie Village have proactively endeavored to face the wide-ranging challenges of mitigation and preparedness in their communities by taking the initial step of conducting a hazards and vulnerability analysis. Resiliency will be developed through the creation of a robust and integrated communication and collaboration network of shared information with a major strength being the ability to engage and build these four assessments/analyses as one project. Vulnerability identification will provide community stakeholders with essential information on potential unmet needs, and the opportunity to provide ideas and input on strategies and solutions.

Additional benefits of this in-depth assessment include providing a foundation of information needed to build resiliency and adaptation strategies into all operational and planning documents. Responding effectively to risks related to critical infrastructure, water resources, and vulnerable populations is crucial to the health and well-being of citizens. In addition, the safety and efficient recovery of privately and publicly held assets is directly related to the economy, a return to normal life after a crisis, and social well-being.

B. Explain how the proposed project meets the purpose of one or more of the Goals and Priorities for FRCP.

❖ **Compliance with “Peril of Flood” statute (Sec. 163.3178(2)(f) F.S.) for communities with a Coastal Management Element in their comprehensive plan**

St. Lucie County completed its latest round of EAR-based Comprehensive Plan amendments and was found in compliance on April 2, 2019. It should be noted that these policies cover the basics of future development or redevelopment within the coastal and flood prone areas.

This vulnerability assessment, modeling, and analysis will aide in identifying areas, assets, and populations at risk. This information will be used to design appropriate strategies to address potential impacts to public and private resources. Specific development and redevelopment principles and strategies will be consistently reviewed and integrated into the Comprehensive Plan during the long-range planning period.

❖ **Development of Adaptation Action Areas and associated Goals, Objectives, and Policies for communities with a Coastal Management Element in their comprehensive plan**

Adaptation action areas and associated goals, objectives and policies will be determined by the steering / stakeholder committees and leadership during and subsequent to the grant period and completion of the vulnerability assessment.

❖ **Vulnerability Assessments, Adaptation Plans or Resilience Plans other than that necessary for compliance with Peril of Flood requirements.**

The intent of this preemptive assessment and analysis is to provide a foundation to develop and implement a community resilience plan looking over a 30 to 50-year horizon and integrate resiliency and adaptive strategies into planning documents within various sectors of government. This project will provide the information necessary to strategically and comprehensively plan in a collaborative way.

This project is unique in that it will focus on identification of hazards, potential impacts, and vulnerabilities at the whole community level, including the county and its municipalities. It will result in a detailed hazard and vulnerability assessment and analysis for St. Lucie County, Port St. Lucie, Fort Pierce and St. Lucie Village that identifies potential threats to critical natural and man-made infrastructure, water resources, historical resources, and vulnerable populations. Infrastructure and assets may include, but not be limited to: critical buildings and man-made infrastructure, natural/green infrastructure, water management and storage facilities, wastewater treatment facilities, protective drainage assets and lock systems, utilities, educational facilities, hospitals, healthcare, assisted living facilities, and other public facilities that serve community residents. Potential hazards may include, but not be limited to: storms/hurricanes, sea level rise, storm surge, wildfires, erosion and flooding.

The analysis will also examine the capacity within each jurisdiction to implement adaptive strategies that position St. Lucie to respond to any challenge, and protect the health, safety and well-being of citizens.

❖ **Regional collaboration**

This initiative will be a collaboration between St. Lucie County, the City of Port St. Lucie, the City of Fort Pierce and St. Lucie Village. In addition, we will be engaging citizen stakeholders in the process, as well as working with neighboring counties/cities to share and learn from one another.

St. Lucie County and its municipal partners historically have worked together on items related to sustainability and resiliency. For example, in 1994, with nearly 70 percent of the vote, citizens passed an environmentally significant land acquisition initiative, resulting in the

preservation of over 12,000 acres. In 2005, the county established the Sustainability Advisory Committee comprised of elected officials from each municipality, as well as community stakeholders. This committee led the charge to: develop a county sustainability plan, to certify the county as a Local Green Government, and to host two Treasure Coast Green Conferences that reached nearly 500 elected officials and government staff from six counties. The county and cities have worked closely on a number of stormwater management projects, economic development plans, and most recently, the successful initiative to increase sales tax to fund water quality improvements, sidewalks and roadways.

The County and Cities have a number of resiliency-based plans and projects. This planning process will aide in tying together existing resilience-related resources and projects and continuing these efforts in a focused way.

❖ **Environmental Justice to ensure that all aspects of the environment are being considered in the plan and its outcomes, such as those for historic resources or stormwater management systems.**

This assessment will include social vulnerability and an analysis to identify areas and populations more vulnerable to the impacts of a changing environment. This project endeavors to identify the public and private critical infrastructure and provide recommendations to strengthen the capacity to serve and provide infrastructure equitably throughout the community.

St. Lucie County is a culturally diverse community, with African Americans making up 20 percent and Hispanic Americans 18 percent of the county's 313,000 population.

While not exclusive to the assessment area, the City of Fort Pierce has several low socio-economic communities that have aging infrastructure and older homes, making them more vulnerable to flooding and other impacts from hazardous conditions. Two of these communities – the Peacock District and Lincoln Park District – are historically African American communities that were established prior to Comprehensive Plan adoption and stronger building codes. While stormwater, economic, and other redevelopment investments have been initiated in these two districts, many vulnerability issues still exist.

As part of this planning initiative, vulnerable historical assets will be identified. At least two action areas that will be looked at are the Fort Pierce downtown waterfront and St. Lucie Village community. These areas are steeped in history with numerous historical assets and will be two of the first areas to be affected by sea level rise and increased storms. Having adaptive strategies in place will aide in preserving these assets through fortification or relocation as determined through the resilience planning process.

Finally, managing water resources equitably throughout the community is a priority to address vulnerable populations, historical assets, and the community as a whole. Through this assessment and planning process, strategies and capacities will be considered to upgrade stormwater systems in areas of high vulnerability.

C. Discuss how the project is feasible and can be completed by the grant period deadline. St. Lucie County and its municipal partners have a long history of working together on plans that impact the greater community. Resilience planning works best as a collaborative effort to include input and commitments from all stakeholders to ensure its success. St. Lucie

County, Port St. Lucie, Fort Pierce and St. Lucie Village are all committed to working together on this initiative.

As discussed, St. Lucie County has already taken some important steps toward resilience planning, including hosting a multi-jurisdictional Community Resilience Workshop for elected officials and municipal staff. The workshop was intended to provide staff from all jurisdictions with a greater understanding of resilience planning to facilitate the next steps in the process.

A formal agreement between the county and municipalities to work collaboratively on resilience planning and assemble a multi-jurisdictional steering committee is expected to be completed in late 2019. This steering committee will initially be tasked with reviewing physical and social areas of vulnerabilities and developing the scope of services for consultant services. The establishment of the steering committee prior to grant funding will help to ensure this committee is knowledgeable and ready to move forward on the assessment once funding becomes available.

As a collective, we have also developed significant platforms for community outreach, participation and education which will be critical for engaging the public.

The scope of work appears to be feasible within the project period, based on conversations with professional consultants. And the St. Lucie community is excited to begin this important work.

- D. Explain how this project is addressing social vulnerability or vulnerability of historic resources or stormwater management systems.** Please see Environmental Justice section above.

12. DESCRIPTION OF PROJECT OUTCOMES:

OUTPUTS	OUTCOMES
Education & Community Outreach	Knowledgeable and engaged citizens
Steering Committee	Coordinated approach to V.A. & Recommendations
Consultant Services	Professional and comprehensive approach to V.A.
Vulnerability Assessment/Analysis	Greatly enhanced information, data, modeling to Recommended Actions aide in developing action areas & adaptation strategies

- 13. BUDGET SUMMARY:** Allowable budget categories and form of payment with the costs for this project are listed in the table below.

BUDGET SUMMARY BREAKDOWN

Budget Categories	Payment	Task 1	Task 2	Grant Amount Awarded
Salaries & Fringe	Fixed Price	\$0	\$0	\$0
Contractual Services*	Fixed Price	\$10,000	\$65,000	\$75,000
GRANT AGREEMENT TOTAL		\$10,000	\$65,000	\$75,000

- A. Describe how the project costs was determined:** The project cost was determined by comparing the costs of resiliency planning efforts and vulnerability studies previously conducted by local governments of similar size, location, and issues. In addition, costs were discussed with Assessment Consultants.

B. Contractual Services Selection*: Upon a selected Sub-Contractor(s) (if applicable), the Grantee will Provide a signed certification statement giving a description of the procurement process that was utilized for the selection of the sub-contractors. The description must include:

- a. What procurement process was utilized
- b. Justification as to how & why you made your final selection.
- c. For competitively obtained Sub-Contractor also include:
 - i. A list of all entities that you received bids/quotes from,
 - ii. Names and addresses of those entities that provided bids/quotes,
 - iii. Actual amounts of the bids/quotes that were submitted.

14. PROJECT TIMELINE: All tasks are to be completed and submitted no later than the task/deliverable due date listed in the table below. Requests for any change must be submitted prior to the current task/deliverable due date listed in the project timeline. Requests are to be sent via separate email to the Department's Grant Manager, with the details of the request being made and the reason for the request.

PROJECT TIMELINE

Task No.	Task Title	Deliverable Due Date	Task Amount
1	Draft Vulnerability Study	06/15/2021	\$10,000
2	Final vulnerability assessment transmitted to DEP	06/15/2021	\$65,000
Total			\$75,000

15. PERFORMANCE MEASURES: The Grantee will submit all deliverables for each task via **one pdf document** to the Department's Grant Manager on or before the Task/Deliverable Due Date listed in the Project Timeline. The Department's Grant Manager will review the task/deliverables to verify that they meet the specifications in the Grant Work Plan and this task description, to include any work being performed by any sub-contractor(s). Upon review and written acceptance by the Department's Grant Manager of all deliverables under this task, the Grantee may proceed with payment request submittal.

16. CONSEQUENCES FOR NON-PERFORMANCE: The Department will reduce each Task Funding Amount by 5% for every day that the task/deliverable(s) is not received on the specified due date in the most recent Project Timeline, for the Agreement. Should a Change Order or Amendment be requested on the date of or after the most current task/deliverable due date, the 5% reduction of that Task Funding Amount will be imposed until the date of the requested change is received, via email by the Department.

17. PAYMENT REQUEST SCHEUDLE: Grantee may submit a request for the Task Funding Amount to be paid using the Exhibit C, after all deliverables for that task have been approved by the Department. Request(s) for payment must include the Exhibit A showing 100% completion of that task and must be submitted within 45 days of the task/deliverable due date. Please refer to the [website Grants page](#) for "How to Request Payment", and "Checklist for Requesting Payment".

Or

Grantee may submit one request for the Grant Amount Awarded, by using the Exhibit C, after the project is 100% completed. The request for the Grant Amount Awarded, must include an Exhibit A showing 100% completion for all tasks, and must be submitted within 45 days of the last task/deliverable due date.

18. FUNDING SOURCE: Grantee agrees to include on all publications, printed reports, audiovisuals (including videos, slides, and websites except that unless required under special terms of this Agreement, this requirement does not apply to audiovisuals produced as research instruments or for documenting experimentation or findings and which are not intended for presentation to the general public) or similar materials must include the DEP logo (which can be found on the Department's website at <https://floridadep.gov/resilience> or by contacting the Department's Grant Manager for a copy) and the following statement on, the following language.

"This work was funded in part through a grant agreement from the Florida Department of Environmental Protection, Florida Resilient Coastlines Program, by a grant provided by the Office of Resilience and Coastal Protection. The views, statements, findings, conclusions and recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of the State of Florida or any of its subagencies."

The next printed line shall identify the month and year of the publication.

III. TASKS & DELIVERABLES

Task #1

A. Title: Draft Vulnerability Study

B. Goal: Review & submit draft vulnerability study

C. Description: October 1, 2020 – December 30, 2020 hold at least 1 steering committee meeting; facilitate/ work with consultant on V.A.; review draft vulnerability study, host at least 1 educational lecture & discussion session.

D. Deliverable(s): The Grantee will submit all deliverables for each task via **one pdf document** to the Department's Grant Manager on or before the Task/Deliverable Due Date listed in the Project Timeline.

1) For the steering committee meeting:

- a. Copies of all workshop/meeting announcements/advertisements
- b. Agendas and sign-in sheets from each workshop/meeting indicating location, date, and time of the meeting
- c. Presentations and other meeting materials/handouts
- d. Brief summary report from each workshop/meeting including attendee feedback and workshop outcomes
- e. Any materials created at each workshop/meeting (as applicable)

2) For the educational lecture and discussion session:

- a. Copies of all workshop/meeting announcements/advertisements
- b. Agendas and sign-in sheets from each workshop/meeting indicating location, date, and time of the meeting
- c. Presentations and other meeting materials/handouts
- d. Brief summary report from each workshop/meeting including attendee feedback and workshop outcomes
- e. Any materials created at each workshop/meeting (as applicable)

3) Draft Vulnerability Study including steering committee review comments

Task #2

- A. Title:** Final vulnerability assessment transmitted to DEP
- B. Goal:** Submit final vulnerability assessment to DEP
- C. Description:** January 1, 2021 – April 30, 2021 hold at least 1 steering committee meeting; Assessment completed, Review by staff & steering committee, finalize assessment, begin discussion on process moving forward, host at least 2 lectures/discussion sessions, Final assessment/final report
- D. Deliverable(s):** The Grantee will submit all deliverables for each task via **one pdf document** to the Department's Grant Manager on or before the Task/Deliverable Due Date listed in the Project Timeline.
 - 1) For the steering committee meeting:
 - a. Copies of all workshop/meeting announcements/advertisements
 - b. Agendas and sign-in sheets from each workshop/meeting indicating location, date, and time of the meeting
 - c. Presentations and other meeting materials/handouts
 - d. Brief summary report from each workshop/meeting including attendee feedback and workshop outcomes
 - e. Any materials created at each workshop/meeting (as applicable)
 - 2) For each lecture/discussion session:
 - a. Copies of all workshop/meeting announcements/advertisements
 - b. Agendas and sign-in sheets from each workshop/meeting indicating location, date, and time of the meeting
 - c. Presentations and other meeting materials/handouts
 - d. Brief summary report from each workshop/meeting including attendee feedback and workshop outcomes
 - e. Any materials created at each workshop/meeting (as applicable)
 - 3) Report summarizing staff and steering committee review comments
 - 4) Final vulnerability study