STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
GRANT WORK PLAN
DEP AGREEMENT NO.: R1931

ATTACHMENT 3

PROJECT TITLE:
Franklin-98 – Early Coordination for Proposed Living Shoreline (Carrabelle Beach to Eastpoint)

Grantee Contact Information:

Organization Name: Apalachee Regional Planning Council

Authorized Signer for the Organization: Chris Rietow

Title: Executive Director

Address: 2507 Callaway Road Suite 200

City: Tallahassee

Zip Code: 32303

Area Code and Telephone Number: 850-488-6211 x102

E-mail Address: CRietow@thearpc.com

Grant Manager Contact Information:

Organization Name: Apalachee Regional Planning Council

Name: Josh Adams, Regional Planner

Address: 2507 Callaway Road Suite 200

City: Tallahassee

Zip Code: 32303

Area Code and Telephone Number: 850-488-6211 x104

E-mail Address: JAdams@thearpc.com

Fiscal Agent Contact Information:

Organization Name: Apalachee Regional Planning Council

Name: Janice Watson, Finance Director

Address: 2507 Callaway Road Suite 200

City: Tallahassee

Zip Code: 32303

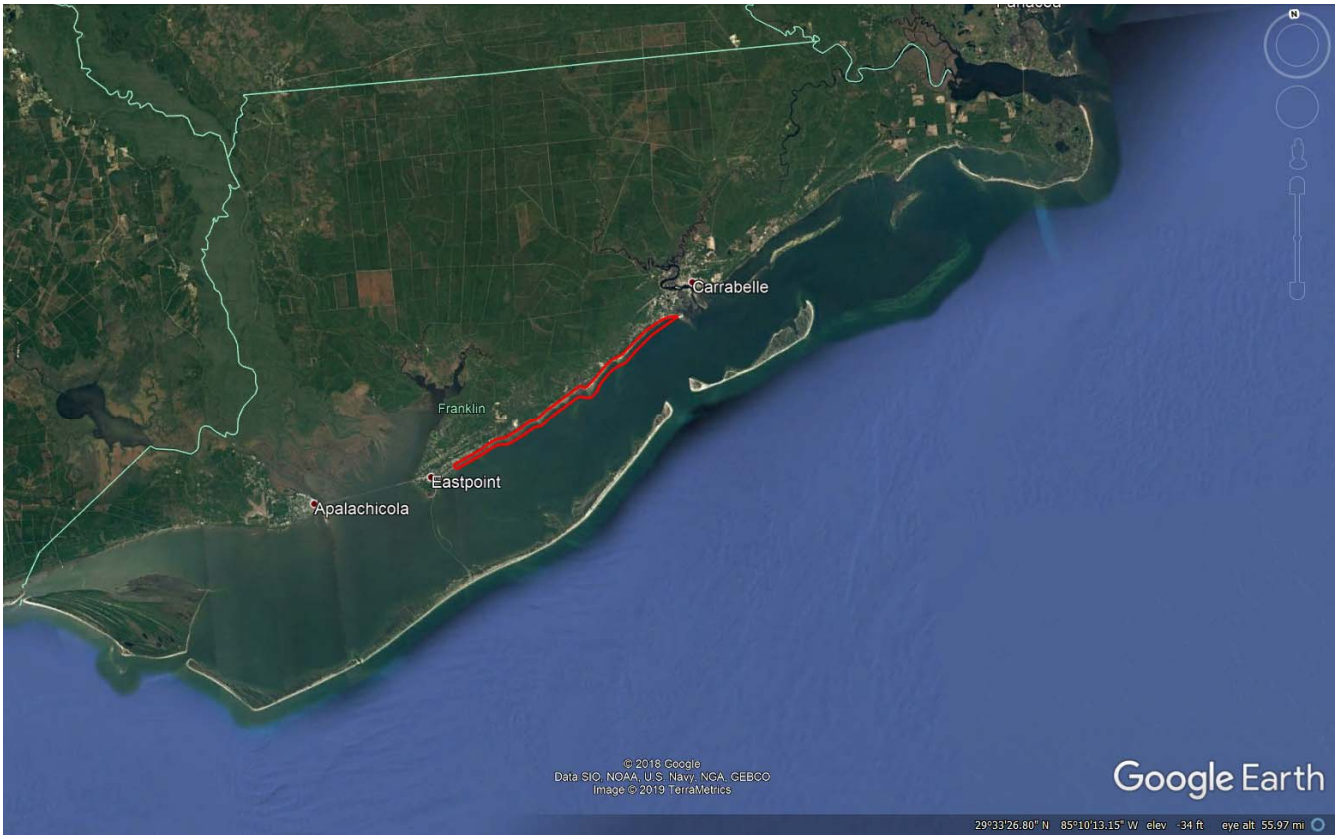
Area Code and Telephone Number: 850-488-6211 x103

E-mail Address: JWatson@thearpc.com

FEID No.: 59-1772505

PROJECT LOCATION:

The proposed project location is along the north shore of St. George Sound in Apalachicola Bay, generally between Carrabelle Beach and Eastpoint. The constructed project will be within this area but is not anticipated to be continuous along this shoreline, as some areas are expected to remain unvegetated and/or without reefs. The following map shows Apalachicola Bay, with the approximate study area outlined in red.



WORK PLAN

1. PROJECT SUMMARY:

This project is a collaboration between multiple entities, with the goal of increasing coastal resilience through the use of green infrastructure (in the form of coastal reefs and emergent marshes). Through multiple meetings, we will engage stakeholders in developing a clear understanding of the need and benefits of these coastal habitats for the section of Highway 98 between Carrabelle Beach and Eastpoint. Site-specific data will be collected, compiled, and analyzed to help inform the project design and facilitate permitting. This project will conduct initial tasks pertaining to coordination and planning for the preliminary project design for a community-supported, large-scale, innovative, living shoreline project.

2. PROJECT DESCRIPTION:

Over the past few years, numerous stakeholders have discussed the need/opportunity to develop offshore reefs and intertidal marsh as a means to improve coastal resiliency along this portion of Highway 98 (between Carrabelle Beach and Eastpoint). In addition to the valuable ecosystem services provided by emergent marshes, submerged seagrasses, and oyster reefs, they also can reduce erosion by absorbing wave energy. This project involves early planning tasks that will inform and

support the design and permitting of a living shoreline project. Specifically, this project will include the coordination, preparation, and facilitation of seven meetings with key government agencies and public stakeholders. In addition to these planning meetings, the project team will conduct a site visit and conduct a desktop study of available information. Also, to support the design and permitting for the project, this grant includes habitat mapping of the anticipated project area and field evaluations of potential reef materials.

3. PROJECT NEED AND BENEFIT:

a. Explain the demonstrated need, which the project addresses.

For approximately 12 miles between Eastpoint and Carrabelle, most of Highway 98 lies immediately adjacent to the water's edge (Figure 1). Due to chronic erosion along this shoreline and the importance of this roadway as a designated Hurricane Evacuation Route, many millions of dollars have been spent trying to protect the roadway from erosion damage. In many cases, erosion during coastal storm events has damaged the roadway, requiring costly repairs. During these repairs, traffic must be diverted around the construction areas, often by condensing the two-lane road down to one lane, thus causing delays to travelers.

Figure 1: This section of Highway 98 (a designated hurricane evacuation route) requires frequent repairs due to storm damage.

Over the years, efforts have been undertaken to stabilize the shoreline with various types of armoring, including vertical concrete seawalls, rock rip-rap, concrete rubble, and articulated-concrete blocks. Unlike natural habitats such as oyster reefs and saltmarshes, this armoring is unable to repair itself after being damaged by waves.

This project will increase the resilience of the nearby communities by restoring lost habitats for fishery resources and protecting existing public infrastructure with the addition of protective natural estuarine habitats, such as nearshore reefs, intertidal marsh, and submerged aquatic vegetation (i.e., seagrasses). All who travel the heavily used coastal Highway 98 will have an opportunity to see firsthand how natural systems can be used to enhance the shoreline, while helping to reduce vulnerability to coastal erosion and sea level rise. The anticipated outcome of this project will eventually be a successful and innovative nature-based shoreline enhancement system, which is supported and understood by the local community.

b. **Explain how the proposed project meets the purpose of one or more of the Goals and/or Priority Areas.**

This project is consistent with the purpose of **Priority Area #3** (Vulnerability Assessments, Adaptation Plans or Resilience Plans …), as this grant will help fund the development of conceptual plans intended to build coastal resilience, especially to vulnerable areas of coastline where public

infrastructure is at risk. The proposed nature-based shoreline protection project is an innovative adaptation method to help minimize impacts from flooding and sea level rise.

This project is a regional collaboration effort (**Priority Area #4**), which brings together multiple communities and/or organizations to build public support for resiliency planning for the segment of shoreline between Eastpoint and Carrabelle Beach. The assistance provided by this grant will support regional collaboration efforts to discuss the vulnerability of the shoreline and decide on an appropriate conceptual design for a living shoreline project to help strengthen coastal resiliency. Specific deliverables associated with this collaboration will include meeting minutes and other materials such as maps, graphs/sketches, and other information produced by the collaborating entities in support of the effort.

c. Discuss how the project is feasible and can be completed by the Deadline of April 30, 2020.
Since the tasks funded under this grant will not be contingent upon any permits or other actions of other entities, no delays are anticipated. These tasks primarily include data gathering/analysis and coordination/collaboration. The schedule provided below will allow ample time for each task to be completed prior to April 30, 2020.

4. **BUDGET SUMMARY:** Allowable budget categories and costs for this project are listed in the table below.

FIXED PRICE	Grant Amount Requested
AGREEMENT TOTAL	**$125,000**

A. Provide an explanation on what methods were used to determine the amount you are requesting.
For ARPC costs, we calculated the amount of anticipated staff hours and expenses. The anticipated number of ARPC staff to be working on the project are 3, and total hours come to 590. The estimated staff costs are $29,500, for ARPC's work on the project. For the required contractual services, we consulted a qualified contractor who is familiar with the proposed project. Their proposal estimate was submitted at a cost of $95,500.

5. **PROJECT TIMELINE:** All tasks are to be completed and submitted no later than the Deliverable due date listed in the table below. Request for any change must be submitted prior to the current deliverable due date listed in the project timeline. Request 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	Background investigations, site visit, and kick-off meeting	1/31/2020	$16,000
2	Habitat Mapping	1/31/2020	$19,500
3	Stakeholder Engagement and Agency Coordination (Three Meetings)	2/28/2020	$10,500
3a	Meeting #1 - Stakeholder Engagement and Agency Coordination	1/31/2020	
3b	Meeting #2 - Stakeholder Engagement and Agency Coordination	2/28/2020	

3c	Meeting #3 - Stakeholder Engagement and Agency Coordination	2/28/2020	
4	Habitat Suitability Analysis and Materials Evaluation	3/31/2020	$44,000
5	Coastal Conditions Analysis	3/31/2020	$21,000
6	Stakeholder Engagement and Agency Coordination (Four Meetings)	4/30/2020	$14,000
6a	Meeting #4 - Stakeholder Engagement and Agency Coordination	3/31/2020	
6b	Meeting #5 - Stakeholder Engagement and Agency Coordination	3/31/2020	
6c	Meeting #6 - Stakeholder Engagement and Agency Coordination	4/30/2020	
6d	Meeting #7 - Stakeholder Engagement and Agency Coordination	4/30/2020	

6. **Performance Measure:** The Department's Grant Manager will review the 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. All deliverable documents must be provided in an electronic downloadable format.

7. **Consequences for Non-Performance:** The Department will reduce each Task Funding Amount by 5% for every day that the 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 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.

8. **Payment Request Schedule:** 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 Deliverable Due Date.

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 Deliverable Due Date.

TASKS & DELIVERABLES

Task #1

A. Title:
Background Investigations, Site Visit, and Kick-Off Meeting

B. Goal:
Building upon existing knowledge and understanding, this task is intended to identify, collect, compile, and analyze available relevant information to support the design and permitting of the project.

C. Description:
A project kick-off meeting and site visit will be held on the same day to allow the project team to coordinate project activities and observe/discuss specific site features and characteristics. Also, a desktop study will be conducted, which will involve the compilation and review of all available existing data that is relevant to the proposed project. Anticipated data will include ownership, current/historic land use, critical habitat designations, elevation (topography and bathymetry), substrate characteristics, oyster coverage, right-of way maintenance records (for existing shoreline armoring and road), sea level rise projections, and other relevant information.

D. Deliverable:
- Sign-in sheet for the site visit/kick-off meeting, in a pdf format
- Notes from the site visit/kick-off meeting, in a pdf format
- A written summary of findings from the desktop study, in a pdf format

Task #2

A. Title:
Habitat Mapping

B. Goal:
This task will support the design and permitting of the project by creating updated maps of seagrass beds and emergent marsh within the proposed project area.

C. Description:
Since detailed vegetation maps of the project area are not currently available, the visible boundaries of existing emergent and submerged vegetation will be digitized and mapped, based on best-available existing aerials of the proposed project area. These data will be required for permitting and will allow the project to be designed in a way that minimizes impacts to existing resources.

Field staff will conduct limited ground-truthing of the mapped features to assess approximate accuracy and help determine the need for future mapping/aerials that might be needed for final design/construction.

D. Deliverable:
- GIS shapefile(s) of mapped vegetation (seagrasses and emergent marsh), to be provided in a pdf format
- A brief (2 - 5 pages) written summary report of habitat mapping procedures and findings, to be provided in a pdf format

Task #3

A. Title:
Stakeholder Engagement and Agency Coordination (Three Meetings)

B. Goal:
Building upon numerous previous discussions and meetings, this task is intended to provide the necessary stakeholder engagement and intergovernmental coordination to establish a strong

foundation for a successful project. Discussions will focus on project goals/constraints, specific design ideas, regulatory requirements, and planning for implementation.

C. Description:

The project team will coordinate, prepare for, and participate in formal meetings with stakeholders and key agencies to discuss the project, with a goal of addressing all concerns while seeking opportunities to maximize benefits of the project. Below is the anticipated meeting line-up, but the exact participants and specific purposes may change slightly based on the needs of the project:

Subtask 3a - Meeting #1

First Stakeholder Engagement Meeting: Present the recent results of the Apalachicola Shoreline Habitats and Resilient Coasts (SHaRC) study, discuss the benefits of living shorelines, document stakeholders' view of the history (timeline) of project site, and engage stakeholders in developing a map of issues/ideas for the proposed project area.

Subtask 3b - Meeting #2

First Agency Coordination Meeting: Coordinate and discuss background investigations, site conditions, materials evaluation, and discuss opportunities/constraints for conceptual design options.

Subtask 3c - Meeting #3

Second Stakeholder Engagement Meeting: Present summary of background investigations, site conditions, etc.; provide update on materials evaluation, and narrow down to top few ideas for conceptual design.

D. Deliverable:

Deliverables from each of the three meetings (Subtasks 1a – 1c) will include the following:

- Meeting agenda, in a pdf format
- Sign-in sheet, in a pdf format
- Meeting notes, in a pdf format

Task #4

A. Title:

Habitat Suitability Analysis and Materials Evaluation

B. Goal:

This task will support the design and permitting of the project by developing a field experiment to evaluate proposed oyster reef materials within the proposed project area.

C. Description:

This will involve the development and early coordination of a pilot deployment of proposed reef materials, which will help inform the project design, aid in stakeholder engagement, and facilitate permitting activities. Marine scientists will develop a detailed experimental design for a pilot installation to evaluate materials for reef design, coordinate with other scientific and regulatory interests, and seek partnerships with other organizations to obtain information that will inform the project design. Anticipated reef materials will likely include Oyster Catcher© products from Sandbar Oyster Company, as well as bagged oyster shells and gravel. Research collaboration with Florida State University Coastal and Marine Lab is anticipated. Coordination with the Conservation Corps of the Forgotten Coast is hoped to result in installation and limited

monitoring of the reef materials at no cost. This task also includes coordination with regulatory agencies responsible for regulating the activities pertaining to the study.

D. Deliverable:

- A detailed written summary of study, including purpose, materials/methods, and preliminary results, in a pdf format
- A completed FWC Special Activity License Application, in a pdf format
- A copy of Request for verification of FDEP *de minimus* exemption, in a pdf format
- A copy of request for authorization from U.S. Army Corps of Engineers to conduct activities under Nationwide Permit 27 (or other permitting mechanism, depending on regulatory guidance), in a pdf format
- Written communications (emails, letters, etc.) showing evidence of coordination with reef materials supplier(s), research institution(s), and/or other relevant entities, in a pdf format

Task #5

A. Title:
Coastal Conditions Analysis

B. Goal:
This task is intended to help the project team better understand the dynamic site conditions of the project site, which will be used in future project phases to develop and refine the project design.

C. Description:
A Coastal Conditions Analysis will be conducted to define key design parameters, such as tide and storm surge elevations and wave characteristics of the project area. This analysis will utilize previously collected background data, as well as existing site-specific information (e.g. tidal datums, historic storm surge elevations and wind records, critical fetch lengths, existing bathymetric data, etc.). Utilizing historic wind records and bathymetry, we will perform empirical wave modeling to determine probable wave characteristics (e.g., wave heights and periods) during average annual conditions and varying-level storm events. These analyses will help provide the information necessary to perform preliminary engineering design of the living shoreline features and allow the project team to evaluate the expected risks associated with varying design conditions.

D. Deliverable:

- A brief written report summarizing the findings of the Coastal Conditions Analysis, in a pdf format

Task #6

A. Title:
Stakeholder Engagement and Agency Coordination (Four Meetings)

B. Goal:
Building upon numerous previous discussions and meetings, this task is intended to provide the necessary stakeholder engagement and intergovernmental coordination to establish a strong foundation for a successful project. Discussions will focus on project goals/constraints, specific design ideas, regulatory requirements, and planning for implementation.

C. Description:

The project team will coordinate, prepare for, and participate in formal meetings with stakeholders and key agencies to discuss the project, with a goal of addressing all concerns while seeking opportunities to maximize benefits of the project. Below is the anticipated meeting line-up, but the exact participants and specific purposes may change slightly based on the needs of the project:

Subtask 6a - Meeting #4
Second Agency Coordination Meeting: Present summary of background investigations, site conditions, etc., and discuss stakeholders' top ideas for conceptual design.

Subtask 6b - Meeting #5
Third Agency Coordination Meeting: Continue discussions about project goals/vision, design ideas, constraints, and resources for implementation.

Subtask 6c - Meeting #6
Third Stakeholder Engagement Meeting: Continue discussions about project goals/vision, design ideas, constraints, and resources for implementation.

Subtask 6d - Meeting #7
Fourth Stakeholder Engagement Meeting: Continue discussions about project goals/vision, design ideas, constraints, and resources for implementation.

D. Deliverable:

Deliverables from each of the four meetings (Subtasks 2a – 2d) will include the following:

- Meeting agenda, in a pdf format
- Sign-in sheet, in a pdf format
- Meeting notes, in a pdf format