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RESTORE ACT Direct Component Multiyear Plan Narrative

OMB Approval No. 1505-0250

Eligible Applicant Name: PINELLAS COUNTY GOVERNMENT

Name and Contact Information of the Person to be contacted (POC) on matters concerning this Multiyear Implementation Plan:

POC Name: ANDREW P. SQUIRES

POC Title: ENVIRONMENTAL SERVICES MANAGER

POC Email: asquires@pinellascounty.org

POC Phone: +1 (727) 464-4633

B. PROVIDE A BRIEF NARRATIVE THAT DEMONSTRATES:

1. The need, purpose, and objectives for each activity, including a detailed description of each activity.

Project 1: Pinellas County Assessment of Vulnerability to the Impacts of Sea Level Rise and Infrastructure Resiliency Plan

This Pinellas County project will build upon previous resiliency planning work performed in the region, eventually facilitating the systematic incorporation of climate risk and resiliency information into local and countywide infrastructure planning and investment processes.

The project will involve, among several tasks, the creation of a Geographic Information System (GIS) that utilizes an agreed-upon sea level rise projection methodology for various time scales and scenarios, the latest topographic data (DEM/LiDAR) and the location of existing and planned transportation, utilities and public safety infrastructure in Pinellas County. This GIS-based decision support tool will generate scenarios related to timelines and change, and facilitate assessment of realistic adaptation and mitigation strategies. Additionally, the planned economic analysis will facilitate long-term/sustainability and cost-benefit-driven decision-making and prioritization by local governments, including the opportunity to identify key projects that may be eligible for infrastructure sales tax funding.

Objectives include:

- To generate collaborative and ongoing momentum for countywide resiliency planning, including arriving at a common understanding and agreement on critical infrastructure vulnerabilities.
- To broadly assess the economic impact of certain infrastructure losses and scenarios in order to better plan and prioritize resiliency, mitigation and adaptation investments.
- To create a robust countywide GIS network(s) and database supporting resiliency and infrastructure planning.

Project 2: Coastal Ocean Monitoring and Prediction System (COMPS)

This University of South Florida College of Marine Science project will solidify funding and return to functioning status one observing station that is part of the larger Coastal Ocean Monitoring and Prediction System (COMPS). This station is located 1 mile offshore of Pass-a-Grille Beach at the entrance to Pass-a-Grille channel. Winds, waves, currents, temperature, relative humidity, barometric pressure, sea surface temperature and salinity will be measured. Data will be reported to the general public, NOAA and other agencies in near real-time via the internet and Global Telecommunication System (GTS). The funding request will cover years 1 and 2 of the original 5-year request. New equipment will be purchased, installed, and tested in year 1, and the system will be in full operational mode throughout year 2. The intention is to sustain operations long-term. COMPS utilizes a systems science approach to describing and understanding coastal ocean phenomena through the coordination of observations with models. Given this initial proof of concept and the public utilization of data at an active point of access to the Gulf of Mexico, sustaining funds will be sought through other related programs to ultimately benefit the understanding of the coastal ocean environment leading to improved management and restoration of the Gulf of Mexico.

Objectives include:

- Establish and sustain a Pass-a-Grille Channel ocean-atmosphere observing site.
- Provide data in real time to the general public, NOAA and other agencies and the private sector.
- After project completion, utilize the data as part of the COMPS system, a coordinated ocean observing and modeling enterprise aimed at understanding the workings of the west Florida coastal ocean and the ecosystems services that it provides.

Project 3: Very High Resolution Estuary Circulation Nowcast/Forecast Model for Tampa Bay and Vicinity

This University of South Florida College of Marine Science project will implement and utilize their existing peer reviewed very high resolution and accurate numerical circulation model for the Tampa Bay estuary and vicinity. The model coverage includes the Intra-Coastal Waterway (ICWW), Boca Ciega Bay, Tampa Bay, Sarasota Bay and all of the major inlets and waterways that connect to the Gulf of Mexico. An automated, daily nowcast/forecast publicly available on the internet will be developed and made operational. The requested funding will be used for the first 3 years the originally proposed 5-year project that will allow the model to become fully operational. Applications will provide for safer and more efficient navigation, water quality assessments, and better understanding of larval fish recruitment mechanisms, harmful algal bloom formation, and other ecological phenomena. The model's fine resolution (20m) will enable the inclusion of all relevant conveyances of mass necessary to properly address the flushing of water, the three dimensional distribution of water properties, and the transport that are important for pollution and water quality studies. An automated nowcast/forecast model with daily updates would, for example, provide pertinent information on predicting oil spill movements to emergency response personnel. In summary, once operational after 3 years, the system will provide for many potential applications enabling informed data-driven management decisions to improve efforts to protect and restore the Tampa Bay area estuarine and coastal environment.

Objectives include:

- Implement the existing model (already run and published in hindcast mode for the period September to December 2001) and perform hindcast tests through the present time
- Nest the Tampa Bay vicinity model into the COMPS West Florida Coastal Ocean Model (that already provides daily nowcast/forecasts).
- Make all model products available to the general public and the agencies via the internet and engage in public outreach and education activities.

Project 4: Ft. De Soto Park Dune Walkovers

This three-year Pinellas County project will design, permit, and construct dune walkovers along a stretch of beach at Ft. De Soto Park, from the Gulf Pier parking lot northward to the North Beach parking lots. Due to the long distances a dune walkover must be constructed to carry pedestrian traffic at the project site, the current funding level is expected to allow construction of at least 2 walkovers in the areas of greatest need to protect the fragile vegetated dune system. The walkovers will serve to minimize human impacts thus serving to protect and conserve wildlife habitat and other living coastal and marine resources, as well as enhance community resilience and improve infrastructure sustainability through maintaining a continuous shore-parallel dune.

Objectives include:

- Direct pedestrian traffic to dune walkovers
- Decrease dune erosion and allow dune to rebuild
- Reduce pedestrian impact to wildlife in area

2. How the applicant made the multiyear plan available for 45 days for public review and comment, in a manner calculated to obtain broad-based participation from individuals, businesses, Indian tribes, and non-profit organizations, such as through public meetings, presentations in languages other than English, and postings on the Internet. The applicant will need to submit documentation (e.g., a copy of public notices) to demonstrate that it made its multiyear plan available to the public for at least 45 days. In addition, describe how each activity in the plan was adopted after consideration of all meaningful input from the public.

Pinellas County solicited public input on the Draft Multiyear Implementation Plan from June 29 to August 20, 2015. A news release with a web link to the Plan was distributed to local media outlets on June 29, 2015 inviting the public to review and provide comments through August 20, 2015. Notices soliciting comments were sent to each of the county's 24 city government offices and to the Tampa Bay Estuary Program's listserv e-mail addresses that encompasses numerous local and regional governments and environmental agencies as well as local chapters of non-profit organizations. The county also e-mailed notices directly to individuals from over 20 stakeholder organizations as listed below:

- Audubon Florida Coastal Islands Sanctuary
- Audubon Society of Clearwater & St. Petersburg
- Clearwater Marine Aquarium
- Environmental Protection Commission of Hillsborough County
- FDEP Southwest District office
- Fish & Wildlife Research Institute (St. Petersburg)
- Florida Dept. of Transportation (Tampa office)
- Florida Native Plant Society
- Friends of Brooker Creek Preserve
- Friends of Ft. De Soto Park
- Friends of Island Parks (Honeymoon & Caladesi)
- Gulf Restoration Network
- Keep Pinellas Beautiful

- NOAA National Fisheries Service Southeast Regional Office
- Restore America's Estuaries
- Sierra Club Suncoast Group
- Tampa Bay Water
- U.S. Army Corps of Engineers,
- U.S. Environmental Protection Agency
- United States Geological Service (St. Petersburg)
- University of South Florida Coastal Research Laboratory

Seventy-seven comments were received as either letters or e-mails. There was very strong public support for the projects proposed. All those sending in comments were in favor of one or more MYIP projects with one exception. The one exception was from a local environmental consultant who supported the resiliency and dune walkover projects but opposed inclusion of the two USF ocean-science projects (Projects 2 and 3) as not being appropriate projects for RESTORE funding.

Due to overwhelming support for the proposed MYIP projects, no activities in the proposed projects, as proposed prior to receiving public comment, were revised. During a public meeting held September 24, 2015, county staff presented the plan to the County Commission who then approved submittal of the MYIP to the U.S. Treasury.

3. How each activity included in the applicant's multiyear plan matrix is eligible for funding and meets all requirements under the RESTORE Act.

Project 1: Pinellas County Assessment of Vulnerability to the Impacts of Sea Level Rise and Infrastructure Resiliency Plan

Primary Eligible Activity: Planning assistance.

This project will systematically incorporate climate risk and resiliency information into local and countywide infrastructure planning and investment processes. The information provided by this plan will be used primarily to address eligible activity (g) per 31 CFR Part 34.201, coastal flood protection and related infrastructure.

Geographic requirement to be in gulf coast region: This project will occur in and for Pinellas County Florida, which borders the Gulf of Mexico.

Project 2: Coastal Ocean Monitoring and Prediction System (COMPS)

Primary Eligible Activity: Planning Assistance

This planning-level project will provide continuous, real time data on surface meteorological (winds, atmospheric pressure, relative humidity, air and sea temperature) and oceanographic (waves and water column currents, temperature and salinity) variables, all publicly accessible on the internet and to agencies via the GTS. These data are necessary for future ecological studies and for coastal protection and restoration projects. Projects stemming from this work will apply to several activities and to 31 CFR Part 34.201 eligible activity (a), restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region.

Geographic requirement to be in gulf coast region: The buoy to be instrumented for this project is located just offshore of St. Pete Beach in Pinellas County Florida in the Gulf of Mexico.

Project 3: Very High Resolution Estuary Circulation Nowcast/Forecast Model for Tampa Bay and Vicinity

Primary Eligible Activity: Planning Assistance

This planning-level project will develop an automated, very high resolution nowcast/forecast system for the currents and waves of Tampa Bay and vicinity. It will be implemented and made available to the public and to resource and emergency managers. These data will be extremely useful for ecological studies and for coastal protection and restoration projects. The information from this system will apply to several future activities as listed below and to 31 CFR Part 34.201 eligible activity (a), restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region.

Geographic requirement to be in gulf coast region: This geographic focus for this project is the Tampa Bay estuary and nearby coastal region adjacent to, and connected with, the Gulf of Mexico.

Project 4: Ft. De Soto Park Dune Walkovers

Primary Eligible Activity: Restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region.

The installation of dune walkovers directly protects dune ecosystems and their diversity. This allows for the continuing entrapment of

sand and development of dunes which continues to protect the natural resources in the project site. As a result, federally protected sea turtles and state protected shorebirds can continue to nest in their chosen habitats; thus positively impacting marine wildlife.

Geographic requirement to be in gulf coast region: This project will occur in Ft. De Soto Park located in Pinellas County Florida, which borders the Gulf of Mexico.

4. How the applicant will evaluate success of the activities included in the matrix.

Project 1: Pinellas County Assessment of Vulnerability to the Impacts of Sea Level Rise and Infrastructure Resiliency Plan

Success will be the development of final report, including summary of economic analysis, key infrastructure vulnerabilities and opportunities, as well as recommendations and a recommended action plan to include potential adaptive and mitigative strategies.

Project 2: Coastal Ocean Monitoring and Prediction System (COMPS)

Success will be a fully operational Coastal Ocean Monitoring and Prediction System (COMPS) station at the entrance to Pass-a-Grill channel that provides a fully operational real-time wave, currents, winds, air and sea temperature, barometric pressure, relative humidity and salinity data via the internet that is incorporated into the overall COMPS data stream.

Project 3: Very High Resolution Estuary Circulation Nowcast/Forecast Model for Tampa Bay and Vicinity

Success will be daily, automated nowcast/forecasts of Tampa Bay vicinity circulation and waves publicly available via the internet.

Project 4: Ft. De Soto Park Dune Walkovers

Project success will be measured by:

- Completion of two dune walkovers at Ft. De Soto Park.
 - Public use of the new dune walkovers that is expected to draw use away from footpaths and help the recovery of nearby scarred areas.
- Although difficult to measure, dune walkover usage will also result in reduced disturbances to nesting shorebirds and sea turtles.

5. How the activities included in the multiyear plan matrix were prioritized and the criteria used to establish the priorities.

The project selection and ranking criteria were drafted by a Working Group subcommittee during two meetings held on March 19, 2014, and April 2, 2014. The county's Direct Component project goals and priorities were incorporated into the selection and ranking criteria. Eleven criteria as listed below were selected with a point range assigned to each.

1. Value of project in meeting Restoration Council goal(s).
2. Number of Restoration Council goals clearly addressed.
3. Value of project in meeting RESTORE Act eligible activity(ies).
4. Number of RESTORE Act eligible activities clearly addressed.
5. Value of project in meeting RESTORE Act Pinellas County priority(ies).
6. Number of RESTORE Act county priorities clearly addressed.
7. Provide countywide and/or regional benefits?
8. Utilizes a collaborative approach incorporating partnerships.
9. Will strongly support and further County Comprehensive Plan Element goal attainment as identified in the overarching project goals.
10. Long-term project benefits.
11. Matching Funds.

A ranking subcommittee consisting of five Working Group members and three county staff members met twice (March 16 and 23, 2015) and ranked the projects based on the 11 criteria. The top 4 projects meeting the eligibility requirements with sufficient project-specific detail were chosen for funding in the MYIP.

6. The relationship, if any, between the activities the applicant included in the multiyear plan matrix and other activities funded under the RESTORE Act.

There are no known relationships between the projects submitted herein and other RESTORE Act funded activities.

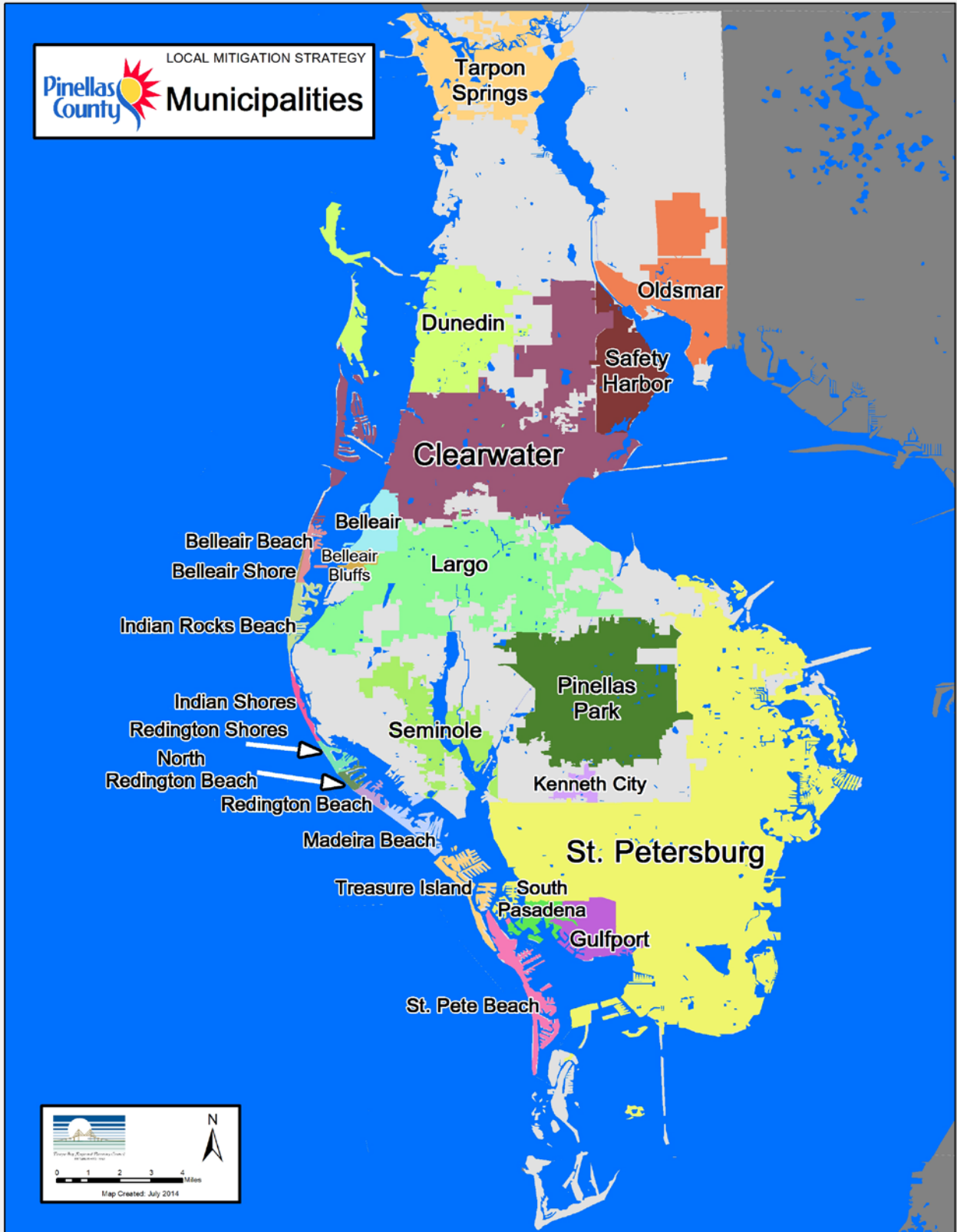
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PROJECT 1

LOCATION MAP

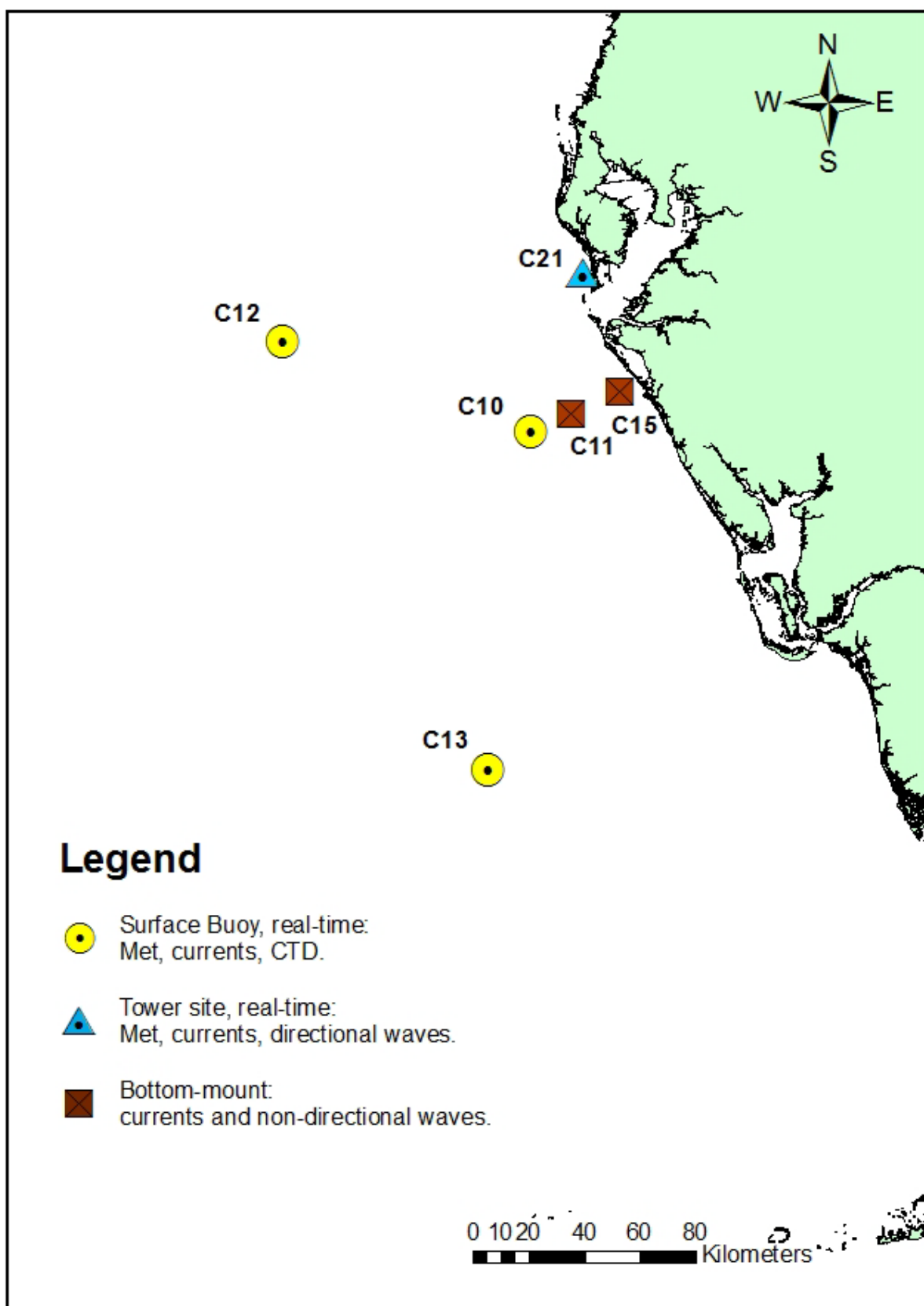
Pinellas County Assessment of Vulnerability to the
Impacts of Sea Level Rise and Infrastructure
Resiliency Plan





PROJECT 2
LOCATION MAP
SITE C21

Coastal Ocean
Monitoring and Prediction System
(COMPS)

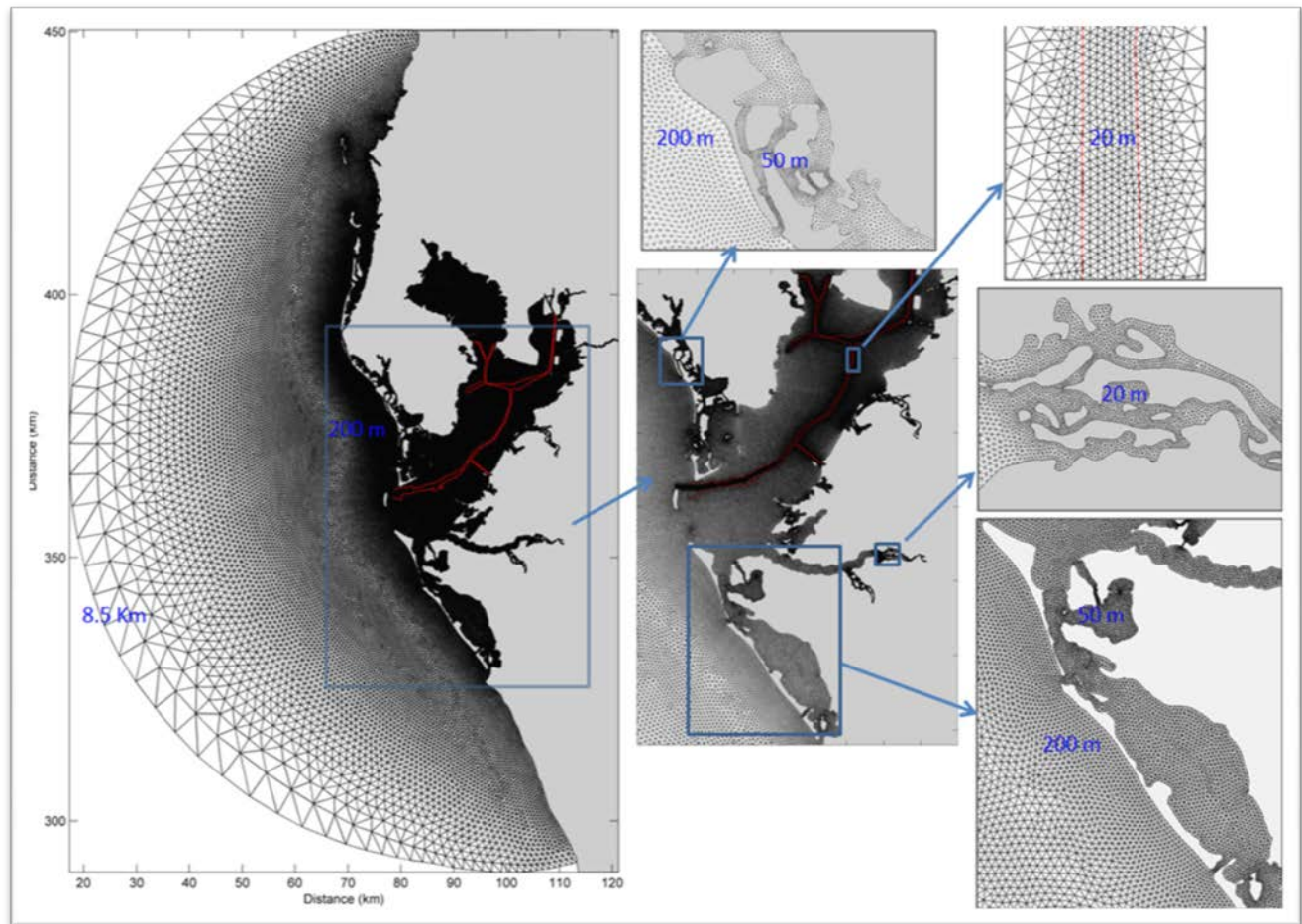


PROJECT 3

LOCATION MAP

Very High Resolution Estuary Circulation
Nowcast/Forecast Model for Tampa Bay and
Vicinity

Tampa Bay Region/Geographic Area Impacted by Project



PROJECT 4

LOCATION MAP

Ft. De Soto Park Dune
Walkovers



Map Produced September 23, 2003

Ft. DeSoto Park

3500 Pinellas Bayway S.
 Tierra Verde, FL 33715
 Park Office: 727.582.2267
 Camp Office: 727.582.2267

Park Hours: 7:00a.m. to dusk

[Information](#) [Park Map/3-D Views](#) [Amenities](#)

Ft. De Soto Park
3500 Pinellas Bayway S.
Tierra Verde, FL 33715

**Project location is from the
north side of the fort
parking lot northward to
north beach.**

**Project falls within the
Tampa Bay Watershed.**

**Location coordinates per
the northwest corner of the
fort parking lot:**

Lon: -82 44'11.82" W

Lat: 27°36'52.66" N



Ft. De Soto Park Dune Walkovers

Priority Spots for Dune Walkovers

Priority 1-Red

Priority 2-Blue

Priority 3-Green

Proposed Project to build two red walkovers and one additional walkover depending upon bid prices.

Construction

