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**Project Name:** Monitoring, public outreach and education of coastal wildlife at St. Joseph Peninsula State Park, Florida

**Submitting entity:** Florida Park Service, District 1

**I. Please select one or more eligible activity the project is classified under:**

- Restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region.**
- Mitigation of damage to fish, wildlife and natural resources**
- Implementation of a federally approved marine, coastal or comprehensive conservation management plan, including fisheries monitoring**
- Workforce development and job creation**
- Improvements to or on state parks located in coastal areas affected by Deepwater Horizon oil spill**
- Infrastructure projects benefitting the economy or ecological resources, including port infrastructure**
- Coastal flood protection and related infrastructure**
- Planning assistance**
- Promotion of tourism and seafood in the Gulf Coast region**

**II. Please provide an executive summary of the project. Describe/quantify the economic (jobs, infrastructure, tourism, etc) and environmental benefits (habitat, quality, knowledge, long-term sustainability, etc).**

Background:

St. Joseph State Park maintains miles of Gulf front beach and bay shoreline bordering the seagrass beds found in St. Joe Bay. Within these habitats, the park supports a wide array of coastal wildlife species including sea turtles, beach mice and a suite of breeding and migratory shorebird species. The intact dune system at the park supports one of the healthiest populations of St. Andrews beach mice (*Peromyscus polinotus peninsularis*). Hundreds of sea turtle nests are located each year. Loggerhead sea turtles (*Caretta caretta*) are the primary nesting sea turtle. However, green sea turtle (*Chelonia mydas*) nests are also located at the park. The park supports the highest diversity of nesting shorebird and seabird species than any other state park in the panhandle (see table 1). In fact, the park maintains the highest population of nesting snowy plovers (*Charadrius nivosus*) in the state of Florida. In addition to snowy plovers, the park supports nesting least terns (*Sternula antillarum*), black skimmers (*Rynchops niger*), Wilson's plovers (*Charadrius wilsonia*) American oystercatchers (*Haematopus palliatus*), royal terns (*Thalasseus maximus*), sandwich terns (*Thalasseus sandvicensis*) and gull-billed terns (*Gelochelidon nilotica*). These species were directly and indirectly impacted by the Mississippi Canyon block 252 (also known as Deepwater Horizon) oil well blowout.

Disturbance and impact to the coastal habitat at St. Joseph State Park has increased since 2010 due to reconnaissance for the oil spill. Much of the impact at the park was in the form of increased driving of the Gulf shoreline by law enforcement, contractors, county officials, wildlife officials and assessment crews. Excessive beach driving has the ability to prevent the establishment of dune vegetations, intensify beach erosion and create excessive ruts that are dangerous for shorebirds and sea turtles that utilize the beach habitat for breeding. In addition to the habitat impacts at the park, the Deepwater Horizon oil spill altered public perception. Consequently, tourism all across the panhandle, including Gulf County, declined.

The carcinogenic Polycyclic Aromatic Hydrocarbons found in oil can cause a multitude of physiological problems to wildlife that negatively impacts reproduction. For example researchers have documented a significant difference in weight and behavior between oiled and non-oiled shorebirds. In addition, oil-related impacts might decrease the amount of food available through impacts to the marine environment. Synergistically, the impacts of the oil spill may result in immediate and long-term impacts to the survival and reproduction of coastal wildlife at St. Joseph State Park. Although the oil never directly impacted the park, tar balls did reach the shoreline and many of the species that use the park also use the Gulf waters for foraging (e.g., sea turtles, seabirds, etc.).

#### Objectives:

Despite the added threats and disturbances to the coastal wildlife at St. Joseph State Park, the park is continually facing budget cuts and lacks the extra staff to monitor, manage or educate the public about the remarkable wildlife that uses the park. With an added biologist position at the park, we seek to meet the following objectives:

1. Aid in conducting monitoring and management for nesting shorebirds, sea turtles and beach mice
2. Conduct public outreach and education to park visitors and residents throughout Gulf County
3. Survey for other species at the park to update gaps in the current knowledge of species that occur at the park, including surveys for amphibians, reptiles, vegetation, invertebrates and species within the seagrass beds

#### Methods:

##### *Shorebird surveys*

Monitoring surveys (February to August) for nesting shorebirds will be conducted weekly in coordination with biologist at the District 1 office in Panama City. Monitoring efforts will include searching for shorebird nests systematically in all suitable breeding habitats, determine nest fates (i.e., hatch or fail) and following shorebird family groups after hatching to determine fledge rates. For snowy plovers, Wilson's plovers and American oystercatchers, adults and chicks will be captured and marked with individual color bands. The marking effort will allow for accurate determination of recruitment and determination of adult survival in the long-term. Marking snowy plovers began in 2008, these continued efforts will allow for determination of potential impacts from the oil spill on long term survival.

Habitat management for shorebirds at the park will include placement of symbolic fencing (i.e., posts, interpretive signs and rope) around active nests and nesting habitat with high densities of nesting. Nesting activities begin in February in Florida and many of the nesting shorebird species will continue nesting throughout the spring and summer until the end of August. Symbolic fencing is placed to minimize the impacts of coastal recreation to nesting shorebirds.

##### *Sea turtle surveys*

Monitoring surveys for nesting sea turtles (May to October) will be conducted coordination with the current sea turtle program coordinated by Joe Mitchell (the park specialist) and under the parks current permit. The park attempts to conduct nest surveys daily according to *Florida Fish and Wildlife Conservation Commission (FWC) Marine Turtle Conservation Guidelines*. The Statewide Nesting Beach

Survey (SNBS) program was initiated in 1979 under a cooperative agreement between the FWC and the U.S. Fish and Wildlife. Sea turtle nests are monitored by staff using strict methods and protocols developed by FWC. FWC has established a marine turtle protocol developed to monitor nesting activity, hatchling success rates, disorientations, document mortalities and strandings statewide, conduct research on the biology of the various species and provide data for managing and evaluating coastal development effects. The Index Nesting Beach Survey is a detailed monitoring program in conjunction with SNBS. This program was established to measure seasonal productivity, allowing comparisons between beaches and between years. St. Joseph State Park is included in this program.

#### *Beach mice surveys*

The park is one of the most important sites for St. Andrew beach mice as it has had the most stable continuous population than any other site. Habitat loss all along its former range is the major contributing factor to the decline of the subspecies. Other threats include hurricanes, introduction of competitors such as house mice and exotic predators such as coyotes and feral cats. The park will conduct tracking surveys in conjunction with FWC to document presence and distribution of mice. Tracking tube stations will be established and set up throughout the dune habitat and monitored once a month, year round.

#### *Species list surveys*

The park has never been fully inventoried for herptofauna (i.e., amphibians and reptiles) or insects, nor have the seagrass beds at the park been surveyed. Surveys for these species and within the seagrass bed community will be conducted periodically. For example, surveys for herptofauna will occur when ponds at the park contain water. Species lists will be developed in association with these inventory surveys and will be added to park brochures.

#### *Public education and outreach*

As part of the management and protection of coastal wildlife at the park, the park needs to improve outreach efforts. With the growing ecotourism industry, improving the outreach efforts will not only improve management at the park, but would benefit the economics for Gulf County. These efforts will include creating and establishing informative kiosks providing information to the public about shorebirds, sea turtles, beach mice, seagrass communities, etc.; creation of color park brochures providing information for tourists visiting the park and the county; guided tours at the park to view coastal wildlife; and outreach throughout the community, including presentation at the Port St. Joe High School, outreach at local festivals such as the Scallop Festival and creation of media pages such as Facebook page for the park. Educating and engaging with the public will help reduce the detrimental impacts to coastal wildlife such as shorebirds beyond what protection of the habitat can do alone.

#### Economic and environmental benefits to Gulf County

This project will provide support to Gulf County, both economically and environmentally. It will require employing one biologist and supporting the local economy through renting property for employee housing, using local businesses for vehicle repairs and supply purchases and contributing to local events such as the Scallop Festival. The coastal wildlife at St. Joseph State Park is a well kept secret. However, outreach efforts will spread this knowledge, encourage attention to the park and draw tourists to the area. Ecotourism activities such as birding are one of the fastest growing recreation activities in Florida.

In addition, by providing data for better management of beaches and the coastal wildlife that use them, the County can continue to grow as a tourist and coastal resident destination while still protecting the natural resources that draw people to the area. Sea turtles and shorebirds are a high-profile species that attract a great deal of attention and draw tourists to the area. Maintaining healthy habitat at St. Joseph State Park will benefit the tourism economy.

In addition, this project will:

- Require employing 1 biologist every year for 5 years.
- These personnel will require housing which means at least one local residence will either be purchased or rented during the project.
- This project will make use of vehicles and ATVs that require frequent maintenance and purchase of supplies such as gasoline, air filters, tire tubes, WD40, etc. We currently use local, Port St. Joe businesses for this work and would continue to use these businesses for this project.
- Many tourists visiting the state park do so to observe the abundant natural resources. This project aims to not only document and monitor coastal wildlife, but to also provide interpretive information and viewing opportunities to park visitors. Being able to support a growing tourism economy without damaging the coastal wildlife will benefit Gulf County.

This project would address serious gaps in our knowledge of coastal wildlife at St. Joseph State Park. Specifically, the project will address shorebird, sea turtle and beach mice ecology and the beach dune habitat that they rely on for survival. Additionally, surveys will be conducted to fill in the data gaps related to species presence throughout the park including surveys for amphibians, reptiles, plants, invertebrates and other coastal wildlife. It is impossible to determine whether a population is declining or growing without having a baseline abundance. Furthermore, without knowledge of species abundance, it is impossible to determine the consequences of management actions or potential impacts to coastal wildlife from disasters (e.g., hurricanes, oil spills, etc.).

Environmentally, this project will provide critically important data on sea turtles, shorebirds and beach mice as well as aide in determining the presence of additional imperiled species at the park. Recent studies suggested the importance of St. Joseph State Park for breeding snowy plovers. Throughout most of Florida, recruitment for this species is critically low. In contrast, St. Joseph State Park produces more fledglings than any other site in Florida. Fledglings from the park are now found throughout the state including at Fort Meyers Beach, Siesta Key, St. George Island State Park, Tyndall Air Force Base, Eglin Air Force Base and Gulf Island National Sea Shore. Protecting the habitat for the snowy plover and other species at the park will help to increase the abundance and diversity of coastal wildlife at the park, thus, increasing the wildlife viewing opportunities in Gulf County. In addition, this project would provide support for a long-term mark-recapture project that began at St. Joseph State Park in 2008. This ongoing project provides the only long-term data set on Snowy Plovers and Wilson's Plovers in Florida. The FPS is committed to this long-term project and will provide the logistic support necessary to ensure its continued success.

**III. Please provide a cost summary/budget. Detail and matching/cooperative funds available for use, and any cooperative support from governmental or other agencies.**

We are requesting \$240,000 for this 5 year project. This includes:

Salary = \$168,000 for one full-time OPS Biologist for five years

Equipment = \$26,000 for UTV/ATVs (including potential replacement due to wear from salt and weather), binoculars, spotting scope, a computer, etc.

Interpretive materials = \$30,000 for interpretive kiosks and brochures that include coastal wildlife (e.g., shorebirds, sea turtles), seagrass beds, etc. This includes funding for the design of the interpretive materials.

Travel, fuel & maintenance = \$16,000 for travel between the District 1 office in Panama City and St. Joseph State Park, vehicle and ATV maintenance and fuel.

We have matching funds for parts of this project from the FWC State Wildlife Grants Program that provides shorebird monitoring throughout the panhandle at District 1 state parks. We also have ongoing partnerships with the American Bird Conservancy and Audubon of Florida for ongoing shorebird work.

We have requested funds from NRDA (\$200,000) and will be applying for funds from DEP Restore Act (\$500,000), and similar projects such as that proposed here within neighboring counties such as Franklin and Bay counties.

We have in-kind support from St. Joseph State Park and the District 1 office in the form of personnel support, administrative support, equipment and supplies.

**IV. Please provide a timeline for project completion. Explain the technical and environmental feasibility (including any permitting considerations) of the project.**

Project duration: 5 years starting May 1 after release of funds (beginning of the nesting season).

Data gathering: years 1-5

Data management and analysis: years 1-5

Our research with marine turtles is permitted through the State of Florida Marine Turtle Permit and with a Florida Fish and Wildlife Conservation Commission banding permit for shorebirds.

**V. Please provide the qualifications of the submitting entity, the financial feasibility/sustainability, and the economic feasibility and sustainability of the project (probability of success, etc).**

This project will be overseen by Raya Pruner and John Bente from the Florida Park Service District 1 office. The FPS- District 1 office can provide additional vehicles, personnel and financial support if necessary to fill in gaps that may arise during the project.

Ms. Pruner has a B.S. in Wildlife Biology (University of Montana – Missoula, MT 2001) and an M.S. in Wildlife Ecology and Conservation (University of Florida, Gainesville, FL, 2010). Her research with the University of Florida emphasized the promotion of adequate protection and habitat restoration for the Snowy Plover and other imperiled coastal-dependent species. Ms. Pruner has been conducting research with coastal wildlife at St. Joseph State Park since 2006. Ms. Pruner currently oversees four technicians and interns that conduct shorebird surveys and helps coordinate the sea turtle surveys at the state parks throughout District 1, including St. Joseph State Park. Therefore, she is fully aware of the logistics necessary for this project. The long-term research (7 years) she has conducted in this area demonstrates the feasibility and sustainability of this project. Ms. Pruner has produced multiple reports and manuscripts summarizing the data she has collected and because her project on the St. Joseph Peninsula represents the only long-term dataset on nesting shorebirds in Florida. This proposed project will provide valuable support to this already ongoing, long-term research that will continue once this proposed research is completed.

Mr. Bente is a supervisory Environmental Specialist III with the Florida Department of Environmental Protection with 29 years of experience managing coastal programs. He holds a B.A. from Nasson College, Springville, ME. Mr. Bente has worked in marine fisheries with the Florida Marine Research Institute at Stock Enhancement Research Facility. Subsequently, he worked as a permit reviewer for works in the waters of the State of Florida for the Florida Department of Environmental Protection. In the past 15 years, Mr. Bente has managed the Florida Park Service, District 1 Administration Biological Section. Mr. Bente and his team are responsible for a wide array of natural resource management tasks in some of the most pristine and diverse ecosystems currently remaining in North Florida. Mr. Bente and his team have performed detailed natural areas assessment and restoration, implemented a comprehensive prescribed fire program and surveyed and monitored listed species including, but not limited to, sea turtles, shorebirds, beach mice, bats, gopher tortoises and multiple species of rare plants.

**VI. Please provide the anticipated results of the project, and whether it is included in the City of Port St. Joe, City of Wewahitchka, or Gulf County Comprehensive and Mitigation Plan.**

This project directly addresses goals and objectives defined in Chapters 5 and 6 of the Gulf County Comprehensive Plan.

Chapter 5:

Goal 1: To guide development in such a manner that coastal resources will not be damaged or destroyed.

- a. Objective 1.1: To allow low density or limited development while promoting the protection of the coastal resources of Gulf County, including wetlands, living marine resources, coastal barriers, and wildlife habitats, shall be managed through the implementation of land development regulations, and by implementing Policies 1.1.1 through 1.1.10.
- b. Objective 1.4: Gulf County shall protect beach and dune systems by enforcing construction standards which minimize the impacts of development on these systems and promotes shoreline restoration
- c. Objective 1.9: The following policies will only apply to critical erosion area from all of the Eglin AFB property to the end of the developed portion of T.S. Stone State Park.

Chapter 6

Goal 1: Protect, manage, and promote energy efficiency, greenhouse gas reduction and conserve the natural resources of Gulf County to ensure their continued best use for the current and future citizens of the County.

- a. Objective 1.4: Gulf County will conserve, appropriately use, and protect its natural resources, including fisheries, wildlife, wildlife habitat, marine habitat, minerals, soils, and native vegetative communities by implementing Policies 1.4.1 through 1.4.11.
- b. Gulf County will seek to protect natural resources from the effects of hazardous waste by implementing Policies 1.5.1 through 1.5.5.

This project also supports the goals and objectives of Chapter 7 and Chapter 11 of the Comprehensive Plan by ensuring continued public use of coastal habitats and by creating multiple jobs and supporting local businesses.

BOARD OF COUNTY COMMISSIONERS  
GULF COUNTY, FLORIDA  
**RESTORE ACT COMMITTEE (R.A.C.)**

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**PUBLIC RECORDS POLICY AND PUBLIC ACCESS ACKNOWLEDGMENT FOR  
GULF COUNTY RESTORE ACT APPLICANTS**

I, Raya Pruner the undersigned authority and/or representative of the entity the Florida Park Service - DI and or the individual who has submitted the Gulf County RESTORE Act Proposal/Pre-Proposal titled Monitoring, public outreach & education of coastal wildlife at St. Joseph Peninsula State Park, FL hereby acknowledge, consent and accept the following representations that coincide with my/our submission for consideration, evaluation and possible recommendation and approval by the Gulf County Board of County Commissioners for funding from the RESTORE Act distribution that strictly complies with the guidelines and regulations set forth under the Restoration and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act of 2012:

1. I/We am the authorized representative of the application/pre-proposal referenced above.
2. I/We have thoroughly reviewed and familiarized myself and/or my entity on which I have submitted the application/pre-proposal on behalf of with the entirety of the Gulf County Public Records policy.
3. I/We have thoroughly reviewed and familiarized myself and/or my entity on which I have submitted the application/pre-proposal on behalf of with the entirety of the Florida Statute Chapter 119 which controls and permits public access to information.
4. I/We hereby acknowledge, consent and agree to the controlling policies and statutes above as well as the free and open exchange of any and all submissions provided hereunder this application/pre-proposal and all information exchanged hereafter including but not limited to further amendments to these proposals as well as surveys, studies, research, data production, books, drawings, property records, work papers, county owner lists, files, forms, reports, accounts, documents, manuals, handbooks, instructions, printouts relating in any manner for the production of the application. In addition, all papers, notes, data, reference material, documentation, programs, printouts, and all other media and forms of expression that in any way include, incorporate or reflect any confidential information of what ultimately shall become the Gulf County plans for use and application of the RESTORE Act funding.
5. I/We acknowledge, agree and fully consent to cooperate with the appointed Gulf County RESTORE ACT committee, county officials and staff as a continuing obligation and condition of final review for this RESTORE Act application/pre-proposal.
6. I/We have submitted this acknowledgment to Gulf County RESTORE Act Committee and the Gulf County Board of County Commissioners for the purpose and intent of receiving an evaluation, review and possible recommendations for anticipated funding from the Restoration and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act of 2012.

  
\_\_\_\_\_  
Signature of RESTORE Act Applicant

Date 3-4-2013

Raya Pruner  
\_\_\_\_\_  
Printed Name