Gulf of Mexico Habitat Restoration via Conservation Corps Partnerships

A Proposal to the Gulf Coast Ecosystem Restoration Council

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Project Identification

Project Title: **Gulf of Mexico Habitat Restoration via Conservation Corps Partnerships**	Project
State(s): AL, FL, LA, MS, TX	County/City/Region: Gulf Coastal Counties in all states

General Location: *Projects must be located within the Gulf Coast Region as defined in RESTORE Act. (attach map or photos, if applicable)* Gulf Coastal Counties/Parishes

Project Description

RESTORE Goals: *Identify all RESTORE Act goals this project supports. Place a **P** for Primary Goal, and **S** for secondary goals.*

P Restore and Conserve Habitat
S Restore Water Quality
S Restore and Revitalize the Gulf Economy
Replenish and Protect Living Coastal and Marine Resources
S Enhance Community Resilience

RESTORE Objectives: *Identify all RESTORE Act objectives this project supports. Place a **P** for Primary Objective, and **S** for secondary objectives.*

P **Restore, Enhance, and Protect Habitats**
S Restore, Improve, and Protect Water Resources
Protect and Restore Living Coastal and Marine Resources
S Restore and Enhance Natural Processes and Shorelines
S Promote Community Resilience
S Promote Natural Resource Stewardship and Environmental Education
S Improve Science-Based Decision-Making

RESTORE Priorities: *Identify all RESTORE Act priorities that this project supports.*

X Priority 1: Projects that are projected to make the greatest contribution
X Priority 2: Large-scale projects and programs that are projected to substantially contribute to restoring
X Priority 3: Projects contained in existing Gulf Coast State comprehensive plans for the restoration ….
X Priority 4: Projects that restore long-term resiliency of the natural resources, ecosystems, fisheries …

RESTORE Commitments: *Identify all RESTORE Comprehensive Plan commitments that this project supports.*

X Commitment to Science-based Decision Making
X Commitment to Regional Ecosystem-based Approach to Restoration
X Commitment to Engagement, Inclusion, and Transparency
X Commitment to Leverage Resources and Partnerships
X Commitment to Delivering Results and Measuring Impacts

RESTORE Proposal Type and Phases: *Please identify which type and phase best suits this proposal.*

___ Project ___ Planning Technical Assistance X Implementation X Program

Project Cost and Duration

Project Cost Estimate: **Total**:	**$ 20,410,000**	**Project Timing Estimate**: Date Anticipated to Start: upon award Time to Completion: 60 months Anticipated Project Lifespan: 15+ years

Gulf of Mexico Habitat Restoration via Conservation Corps Partnerships

Executive Summary

Introduction:

This proposed program meets the RESTORE Council's goals to restore and conserve habitat, as well as enhance community resilience and restore the Gulf economy, through the completion of priority restoration projects throughout the Gulf via a Gulf Coast Conservation Corps (GCCC). This program will accomplish a wide array of specific habitat restoration projects throughout the region such as invasive species removal, living shoreline installation, oyster reef restoration, and pine savanna restoration. Restoring habitats and ecosystems is one of two necessary components to sustaining Gulf Coast recovery. Healthy ecosystems are necessary for the human environment to thrive, and a thriving human environment is necessary to sustain stewardship of healthy ecosystems. The two are inseparable. This program proposes to first yield significant ecosystem restoration, while in the process economically benefiting coastal communities by arming local citizens with the knowledge, skills, and ability to implement and manage conservation projects. A Gulf Coast Conservation Corps Program (GCCC Program) provides on-the-ground-restoration; builds on existing partnerships among federal, state, academic, and non-profit organizations; recruits and trains local workers (particularly youth, veterans, and displaced workers) in a variety of habitat restoration techniques; and provides paid, hands-on work experience in on-the-ground projects. These jobs vary depending upon the scope of the project, but can include operators, machinists, welders, surveyors, and a variety of laborers, scientists, and managers. The depth of the impacts from the *Deepwater Horizon* oil spill has resulted in billions of dollars coming to the region to implement natural resource restoration projects. This program will 1) result in meaningful habitat restoration, 2) establish a well-trained, local, and quickly mobilized workforce to implement some of the current and growing volume of restoration projects across the region, and 3) provide educational experiences critical for grooming the Gulf's future natural resource stewards.

Implementation:

Over a five-year period, NOAA will invest $20.4M in partnership with a leading corps network organization operating regionally/locally to implement priority coastal habitat projects across the Gulf via establishment of a Gulf Coast Conservation Corps Program (GCCC Program). The GCCC Program will train members in a variety of skills and mobilize paid crews to implement an initial set of seven (7) priority restoration projects located within the five National Estuarine Research Reserves (NERRs) and two National Wildlife Refuges within Louisiana. Over 2,000 acres of coastal habitat will be restored, including: oyster reef, marsh, seagrass, shorelines, long leaf pine forest/savanna, and coastal prairie. These sites will serve as initial locations from which trained crew members could mobilize anywhere within the Gulf, including other federal and state refuges, state parks, reserves, or other conserved lands.

Projects will be implemented in collaboration among NOAA, state and federal partners including the NERRs, and a regional corps network organization that will be competitively selected. The corps network organization will coordinate: the development of local corps programs, recruitment of crew members, crew transportation, technical and safety training, mentoring, labor and oversight, supply and equipment costs, and maintenance of administrative records. NOAA and State Coordinators will collaborate to determine project implementation needs and tailor work crews and training to

both implement the projects and monitor project performance over time. NOAA will build on its previous success with conservation corps, and collaborate with the Department of Commerce bureaus to identify critical employment needs within the region from which to focus corps recruitment.

Monitoring and measures of success:

Ecological measures

The ecological measures of habitat restoration projects completed by the conservation corps will vary from project to project. Restoration projects will be designed to include monitoring to determine the success of the restoration, ecosystem response to the various restoration techniques, mapping of habitat response, and necessary adaptive management or 'lessons learned' from restoration actions. Based on known available projects, *it is anticipated that at least 2,000 acres of coastal habitat will be restored during the first five years of this program.*

Community impact measures

The overall program is intended to benefit participants of the conservation corps (in particular, members of local Gulf communities) by providing opportunities for job training, personal development, conservation service, mentoring, and natural resource appreciation. Success of the program will be measured by the number of crew members trained, the type of and number of trainings provided, the hours of hands-on work experience obtained, and other outcomes that demonstrate the benefits to the participants.

Program Benefits:

The program model contemplated in this proposal, which is built on partnerships among federal, state and corps organizations, has been implemented successfully by NOAA in other regions and will successfully bring similar benefits to the Gulf of Mexico region, such as:

Ecologic Benefits:

- Creation of fish and wildlife habitat
- Enhanced habitat productivity
- Improved habitat sustainability
- Improved land management
- Focus on conservation and stewardship

Economic Benefits:

- Trained, local labor force
- Employment for at-risk citizens
- Provides professional mentoring
- Results in transferable job skills
- Promotes community resiliency

This program is mutually beneficial between the RESTORE Council and coastal communities, because the GCCC will be an on-going source for local labor that is specifically trained to implement some of the restoration project types that are likely to be funded now and in the future. GCCC members will be recruited using labor statistics and local partnerships that aim to benefit the most depressed coastal economies and optimize benefits to the human community. Moreover, the diversity of habitat restoration proposed by this initiative will support the critical functional and ecosystem roles that coastal habitats provide across the Gulf coast. These projects will enhance habitat for threatened and endangered species, and help sustain the recreation, tourism, and estuarine-dependent commercial and recreational fisheries that play a key role in the region's economy. Since these projects are located on managed lands, the restoration benefits derived from these activities will be perpetuated by careful land stewardship and conservation well beyond the life of this proposal.

Gulf of Mexico Habitat Restoration via Conservation Corps Partnerships

I. Introduction & Background

The RESTORE Council, in its *Comprehensive Plan to Restore the Gulf Coast's Ecosystem and Economy* (Gulf Coast Ecosystem Restoration Council, May 2013), recognizes the tremendous value and importance of the Gulf Coast ecosystems to the Nation's economy, providing energy resources, seafood, tourism and recreational areas, and a rich cultural heritage. In the wake of the *Deepwater Horizon* oil spill, and in acknowledgment of the decades of degradation resulting from numerous human activities, storms and other natural forces, the RESTORE Act envisions a regional approach to the long-term restoration of the Gulf ecosystems and economy. This proposal is in response to the solicitation published in summer 2014, which targets the specific goal of coastal habitat restoration that benefits the human community.

Coastal Habitats of the Gulf of Mexico

Coastal habitats, such as wetlands, mangroves, reefs, seagrasses, riparian zones, and coastal forests, are among the most productive ecosystems on Earth and support many species of fish and wildlife. Numerous rare and endangered bird species depend on coastal habitats, especially wetlands, for foraging, roosting and nesting. The Gulf's habitats are also critical for supporting a productive fishery. More than half of commercially harvested fish species depend on estuaries and nearby coastal waters at some stage in their life cycle, which supports a billion dollar industry. These habitats also help improve water quality by filtering, storing, and detoxifying residential, agricultural, and urban wastes and improving overall water quality through the removal and recycling of nutrients. Coastal habitats also buffer communities against storm and wave damage and help stabilize shorelines, providing increasingly important functions in the face of climate change.

The Gulf states, however, have suffered a high amount of coastal habitat loss over the last century, threatening the wildlife, economy, and resilience of the entire Gulf coastal region. Using the remote sensing and mapping methodology of NOAA's Coastal Change Analysis Program (C-CAP), losses of wetlands alone in the Gulf of Mexico coastal watersheds from 1996 to 2006 were estimated at approximately 256,100 acres, or an annual average loss of approximately 25,610 acres (Dahl and Stedman 2013). Regional losses of oyster reefs and the other coastal habitats are equally compelling and support the need for large-scale, coordinated restoration.

Coastal Economies of the Gulf of Mexico

Identifying primary habitat restoration projects is only one part of the solution to restoring the Gulf ecosystem, an ecosystem whose long-term stewardship is driven by residents who have community resiliency and a strong economy. The primary economies along the Gulf coast are supported by oil and gas development, fisheries, tourism, and maritime commerce.

Employment within these sectors is typically specialized and is very influenced by market fluctuations. As such, unemployment rates, especially among youth and other sectors such as returning military veterans, are high (see statistical information in "Other Information") due to either the lack of locally available jobs in a depressed economy, and/or lack of specialized training for coastal residents to be qualified for the jobs that are available.

Certain employment classes, like youth, have been identified as areas where there is a growing employment need. According to the Bureau of Labor Statistics, in 2012 the youth unemployment rate in the Gulf states averaged 17.2 percent for ages 16-24, ranging from 13.5 percent in Texas to 23 percent in Mississippi (Governing the State and Localities, 2013). In several of the Gulf Coast states the post-9/11 veterans population is another that is experiencing high unemployment rates (Joint Economic Committee, 2013).

Additionally, 18 percent of the population in the Gulf Coast states lives below the poverty level (ranging from 14.9 percent in Florida to 22.5 percent in Mississippi) compared to 14.5 percent nationally (U.S. Census Bureau, 2013). *Economic statistics*, such as employment growth and unemployment rates, by state, can be found in the "*Other Information*" section. Further, as the maps in that section illustrate, the specific counties nearby some of the public lands in the states of Mississippi, Alabama, and Florida all have employment growth rates below the national average. Given the proximity of economically struggling communities to public lands and waters that will provide many of the opportunities for coastal restoration, there is a strong nexus between community need and habitat restoration in these coastal areas.

Coastal Restoration and Job Creation

Coastal habitat restoration has not always had, on a regional level, funding that could provide predictable and long-term employment for a broad spectrum of the community. Such jobs have generally been professional in nature, including the fields of engineering, science, academia, and policy. Construction-related jobs have been typically sporadic as projects received funding. These jobs vary depending upon the scope of the project, but can include operators, machinists, welders, surveyors, and a variety of laborers, scientists, and managers. The depth of the impacts from the *Deepwater Horizon* oil spill has resulted in billions of dollars coming to the region to implement natural resource restoration projects. This level of investment means that there is a predictable, long-term source of funding that for the first time will produce a heavy demand for local labor with some specialized training in habitat restoration. Projects that are likely to result from the spill will include a broad array of techniques, including but not limited to: sediment dredging, reef building, shoreline stabilization, hydrologic restoration, and land management practices. Labor needs for these projects will vary based on size and complexity. Moreover, the Gulf States have passed legislation requiring the hiring of local labor to the maximum extent practicable. This legislation bolsters the need to develop local labor forces in each state that are equipped to provide the skill sets needed for project implementation. This is additionally supported by local community representatives requesting the RESTORE Council and other government trustees to create local economic opportunities as part of restoration implementation. As well,

Oxfam, endorsed by dozens of local businesses and community organizations, specifically recommends the creation of a Gulf Coast Conservation Corps (Oxfam, 2010).

Program Goal and Objectives

As discussed above, there is need to restore our coastal habitats on a regional scale, and a parallel need to strengthen our coastal economies through job development. Considering the volume of restoration projects that will result from the *Deepwater Horizon* oil spill settlements, there is great opportunity to create a local labor force that can 1) help meet the governments' needs for project implementation, while 2) benefitting from direct employment and developing practical, transferable skills. Over a five-year period, NOAA proposes an investment of *$20.4 million to construct seven (7) projects*, by establishing and employing a Gulf Coast Conservation Corps Program (GCCC Program). The GCCC Program will provide region-wide skilled labor for the purpose of conducting hands-on habitat restoration located in five areas across the Gulf coast. Specific objectives include:

- Construct and implement at least seven (7) projects that restore habitat and water quality across the gulf coast using a trained, local labor force that can mobilize quickly for place-based restoration
- Build a long-term, regional conservation corps program that will create a local restoration labor force skilled in conducting and monitoring restoration in sensitive habitats
- Enhance the sustainability and resilience of the Gulf economy by providing professional development, training, and work experiences for local citizens
- Develop sustained local stewardship by providing transferable skills, experience, and career building opportunities in the field of conservation and restoration

Support of RESTORE Emphasis Areas

The GCCC Program inherently meets the requirements of the Council in all four emphasis areas provided within the solicitation. The Program is *foundational* in that it provides on-the-ground *regional* restoration within some of the Gulf's most fragile habitats; as well, it builds the human capital needed to meet the present, and future, large-scale restoration needs of the Gulf coast given the paucity of local labor specifically trained to conduct ecosystem restoration. The Program builds the infrastructure for a skilled workforce development program, as well as an envisioned network of trained restoration specialists. The GCCC will help public land managers meet large-scale restoration and management needs that might otherwise go unmet due to shrinking budgets and resources. The program is *sustainable* in that the GCCC will deliver both 1) long-term restoration to public lands, with managers who are good stewards of the restoration outputs, and 2) long-term economic benefits by providing life-long job skills to local citizens in the most need. Future projects funded through sources such as the Gulf Environmental Benefit Fund, Natural Resources Damage Assessment, or other state and federal sources could benefit from the trained and experienced local labor force that this program will help build, potentially cutting the costs of future natural resource restoration and conservation projects. Furthermore, the GCCC will be

successful because it has 1) demonstrated restoration and employment capacity, and 2) will build on comparable existing programs with long track records of success, as discussed below. Finally, the Program has obvious benefits to the *human community* in that local communities will have the opportunity to share in the benefits of restoration implementation through direct employment and through training to become long- term stewards of the coastal resources on which their communities have come to depend.

Expanding conservation corps success

The project will build on *previous experience* NOAA has gained through other successful corps models (see photo, video and fact sheet documentation in *"Other Information" section*), such as:

- *California/NOAA Veterans Corps pilot project*: Implemented through a partnership with the California Conservation Corps, California Department of Fish & Wildlife and the Forest Service, NOAA is providing science-based training, job opportunities and career pathways for veterans through hands-on work in habitat restoration and monitoring fisheries restoration projects. Participants conduct spawner surveys, summer juvenile dives, habitat surveys, topographic surveys and implement high priority restoration projects that have been identified in the NMFS SONCC Coho Recovery Plan. The program started in northern California and was recently expanded to also include two new locations in southern California where the focus will be on implementing NOAA's high priority recovery actions for threatened South Central California Coast Steelhead and endangered Southern California Steelhead.
    - *Video documenting vet corps*: Video: NOAA Veterans Corp (3.5 minutes)
- *Seattle, Washington/Commencement Bay Stewardship Collaborative*: The Natural Resource Damage Assessment Trustee Council for Commencement Bay, to which NOAA is a party, endowed EarthCorps with nearly $5 million to steward 17 restored sites in perpetuity. EarthCorps, which was competitively selected for this funding, is a non-profit corps organization that trains environmental leaders through service projects.
- *Hawaii/Hawaii Community Foundation/Kupu/Hawaii Youth Conservation Corps*: This program engages youth in a variety of service projects such as invasive species removal and installation of native vegetation, and marine debris removal. Corps members gain leadership experience in overseeing volunteer service projects.

Other federal agencies, like the National Park Service (NPS), also recognize the value of utilizing corps crews to complete restoration and maintenance work on federal lands. In 2012, NPS conducted an analysis (NPS, 2012) to determine how the costs of engaging conservation corps to accomplish cyclic maintenance activities at national parks compared with the costs of using contractor or NPS crews. The project analysis determined that, on average, using conservation crews saved 65 percent over NPS crews, and saved 83 percent and over $130,000 per project over contractor crews.

II. Implementation Methodology

By leveraging existing resources, NOAA will work with state and federal partners to implement priority coastal habitat projects across the Gulf via establishment of a Gulf Coast Conservation Corps Program (GCCC Program). The GCCC Program will train members in a variety of skills and mobilize crews to implement an initial set of seven (7) priority restoration projects located within the five National Estuarine Research Reserves (NERRs). Data from the U.S. Department of Commerce Economics & Statistics Administration will help inform decisions about which populations should be targeted for recruitment to help revitalize local economies through job opportunity to conduct implementation of these projects. NOAA will leverage existing training programs (see "Other Information" section), and develop new restoration training as opportunity and need present, to educate a new generation of conservation stewards to best meet the evolving needs of restoration implementation.

Projects will be implemented in collaboration among NOAA, state and federal partners including the NERRs, and the corps network organization. The State Project Coordinators and Regional Coordinator (discussed in detail below) will facilitate this process among partners. NOAA, through its Program Coordinator, will consult with the Department of Commerce Economic Development Agency and/or Economic & Statistics Administration and state and local partners to determine the work skills in greatest demand from state to state from which to help tailor training. Detailed descriptions of these and other roles and responsibilities are outlined in the Budget Narrative section of this proposal. As part of this collaboration, the following logistics will be jointly determined based on individual project and location needs:

- Detailed implementation plans and training strategy
- Organization of training personnel
- Scheduling of crew labor and project oversight
- Development of coordination and safety plans
- Development of project-specific monitoring plans
- Identification of efficiencies or synergies across sites to optimize resources

Building a Gulf Coast Conservation Corps to meet restoration needs

NOAA will enter into a cooperative agreement, based on a competitive selection process, with an established corps network organization operating regionally and locally that will coordinate: the development of local corps programs, recruitment of crew members, crew transportation, technical and safety training, mentoring, labor and oversight, supply and equipment costs, and maintenance of administrative records. The corps network organization will serve as 1) a regional coordinator and trainer of willing localized, smaller corps entities that currently exist and 2) a promoter of local corps establishment in areas across the Gulf where they do not currently exist but are a critical component on which to establish a regional, restoration-focused program.

A Regional Project Coordinator (RPC) within NOAA will serve as a liaison between the State Project Coordinators and the corps network organization to help determine crew size, skills required, oversight needs, and identify any special training necessary to complete the respective projects. The corps network will develop a recruitment plan within each state. These plans should include pursuing public/private partnerships and/or coordination with Federal and State Departments of Labor, local Workforce Investment Boards, minority serving institutions (MSIs), academic institutions (including HBCUs and community colleges) and others to recruit from diverse populations such as communities of color, underemployed and low-income youth, veterans, under-employed fishermen and others seeking opportunities in restoration-related fields.

GCCC Program participants will receive training in a range of restoration techniques necessary to implement and monitor the projects below. Additionally, opportunities for developing technical training and certification in collaboration with colleges or other vocational training venues will be considered for those projects where there is a need to develop specialized skills not presently available within the NERRs training program. Only vocations that are directly relevant to coastal restoration and fit within the construct of corps operations would be pursued as part of this program.

Anticipated career pathways for corps members include private sector positions such as construction survey technicians and field staff, deckhands, construction equipment and light equipment operators, environmental field and conservation technicians, general laborers, and field inspectors. Other career pathways include government and NGO sectors involved in natural resource management and ecological restoration as well as post-secondary opportunities.

Gulf Coast Habitat Restoration Projects

The GCCC Program will be initiated on the project sites discussed below, developed under collaboration between NOAA and each NERR. The five Gulf NERRs – Mission Aransas, TX; Grand Bay, MS; Apalachicola, FL; Rookery Bay, FL; and Weeks Bay, AL -- are natural partners for the initial roll-out of a conservation corps (see letters of participation in "Other Information"). Protected for research, environmental monitoring, education, training, and stewardship, each is managed cooperatively by state agencies, universities, and NOAA's Office for Coastal Management (see NERR location maps in "Location Information"). Over 566,000 acres of habitats are protected including marsh, wetlands, coastal forests and prairies, oyster reefs, seagrass beds, barrier islands, and tidal flats. Restoration priorities include re-establishing hydrology, improving water quality, restoring wetlands and forests, removing invasive species, and restoring oyster reefs. The section below further describes specific restoration projects that will be completed by corps members with this funding. The real world experience and skills acquired by corps members through projects at NERR sites are also transferable to other potential restoration projects across the coast. Some of these sites include, but are not limited to: USFWS National Wildlife Refuges, state reserves and protected areas, US National Park Service lands, and sites administered by the EPA's National Estuaries Program.

Projects by state location: Need, Action, and Benefits

Alabama- Weeks Bay NERR

Pine Savannah and Hydrologic Restoration

- Need: Pine savannahs are floristically rich, herb-dominated wetlands, which are naturally sparsely stocked with longleaf pine (Pinus palustris). The Pine Savannah habitat of the southern Coastal Plain is among the most endangered ecosystems in North America. Its native range once stretched from southern Virginia to east Texas, covering almost 90 million acres. Today only 3 million acres across the South contain some longleaf forests, and of that only about 12,000 scattered acres retain an old-growth component with a biologically diverse understory. For the most part, savannah remnants seen today are relatively limited in size compared to the broad expanses that once existed. Fire, soil conditions, and a seasonally high water table work in concert to control community structure in savannahs, but fire is considered the critical element in their maintenance for perpetuation in their natural habitat. Among other things, fire stimulates flowering and fruit/seed production of savannah flora, deters invasion by fire-intolerant woody vegetation, and exposes mineral soil for seedlings of indigenous herbs and longleaf pine to become established. In the absence of frequent burning, pine savannahs quickly succeed into shrub/tree thickets. Pine savannahs are essential coastal habitats across the north Gulf coast. In addition to this maintenance, the Weeks Bay NERR has been negatively impacted by the construction of canals that have impeded natural drainage and water retention within its wetlands. These canals are also a conduit for salt water intrusion throughout the ecosystem. Hydrologic restoration is needed to restore these habitats.
- Restoration Activities: Habitat will be restored through removal of invasive species through prescribed burning and other eradication techniques such as herbicide application and direct removal. Hydrology will be restored through back-filling canals with upland sediment and vegetative planting.
- Expected Benefits: Completion of these projects will result in restoration of 1,500 acres of wetland habitat, enhancement of estuarine ecosystem function, and greater tidal exchange and drainage to reduce water stress and promote optimal vegetative growth and plant biodiversity. *Corps members will gain skills in plant identification, invasive removal, herbicide application, hydrology, mechanical equipment operation, survey and remote sensing, land management, and biological monitoring.*

Florida – Apalachicola NEER

Intertidal Oyster Reef/Living Shorelines

- Need: Shoreline stabilization and erosion control are major concerns of managers in coastal environments. Loss of sediments due to tropical wind and wave activity and shoreline losses related to sea level rise are of major problem on the Apalachicola NERR. Along the Gulf Coast, devastating hurricanes have severely degraded estuarine and beach habitat, making an already fragile coastal system even more vulnerable to future storm activity. Attempts to protect coastal areas from storms, increased wave activity and rising waters have usually involved the construction of hard structures like rock jetties, bulkheads and seawalls. However, scientists have learned that these artificial barriers can do more harm than good. Oyster reefs are an alternative solution to the concrete and steel bulkheads that line some coastlines because they are a natural component of the marine

environment, abate wave energy, and are self-sustainable. Oyster reefs also play an essential ecological role in maintaining the health of bays and estuaries.

- Restoration Activities: Shorelines will be protected using 'living shorelines', which includes building high-relief reefs to abate wave energy and maximize structure sustainability. Reefs will include native oyster shell that is contained and placed nearshore. Additionally, vegetative plantings will enhance shorelines stability on the lee side of the reefs. Additional goal is to enhance oyster reefs to bolster reproduction and colonization of the local standing crops in Apalachicola Bay.
- Expected Benefits: Completion of this project will protect and restore up to 100 acres of wetland habitat, as well as provide a brood stock to compliment other oyster restoration projects within the Bay. *Corps members will gain skills in oyster biology, shoreline protection techniques, vegetative plantings, and mechanical equipment operation.*

Florida- Rookery Bay NERR

The Fruit Farm Creek Mangrove Forest Restoration project

- Need: Mangrove forests, along with the animal species they shelter, represent globally significant sources of biodiversity and provide humanity with valuable ecosystem services. They are used by mammals, reptiles and migratory birds as feeding and breeding grounds, and provide crucial habitats for fish and crustacean species of commercial importance. The roots of the mangrove physically buffer shorelines from the erosive impacts of ocean waves and storms. On a global scale, they have been shown to sequester carbon in quantities comparable to higher-canopy terrestrial rainforests, which means that they may play a role in mitigating climate change, in addition to physically protecting coastlines from the projected sea-level rise associated with climate change. With the problems of global climate change and sea level rise facing all the mangroves of these areas, improved hydrology to allow for adaptation to rising water levels is an essential part of the management of these ecosystems. This project will help to reverse the loss of mangrove forests worldwide through the application of ecological, hydrological and engineering approaches, including careful cost evaluations prior to design and construction.
- Restoration Activities: Activities include restoring tidal flow to an area that has been altered by the installation of a roadbed and subsequent die-off of mangroves. Culverts will be installed under the roadbed to allow tidal exchange, and re-vegetation will occur as needed. Mangroves will be observed for recovery as it relates to hydrologic management.
- Expected Benefits: This project will positively impact a 220-acre mangrove estuary, which will improve stormwater and springtide flows in the immediate area as well as return the area to a functioning tidal swamp. *Corps members will gain skills in hydrologic planning, surveying, mangrove restoration, culvert installation, and monitoring*.

Louisiana- Bayou Savage and Big Branch National Wildlife Refuges

Hydrologic restoration; invasive species removal; shoreline protection, vegetative planting

- Need: These refuges contain over 20,000 acres of fragile wetland habitat in southeastern coastal Louisiana. The purpose of the refuges is to protect some of the only Lake

Pontchartrain shoreline that exists in its natural state and to provide habitat for a diversity of wildlife species, with special emphases on migratory birds and endangered species. The refuge supports over 5,000 wintering waterfowl, including mallards, gadwall and Northern Pintails. The endangered red-cockaded woodpecker nests in the refuge's pine forests. Coastal wetlands within Louisiana are in desperate need of restoration and suffer from high erosion and subsidence rates, salt water intrusion, storm susceptibility, invasive species, and hydrologic alteration.

- Restoration Activities: Restoration activities will include shoreline protection through placement of sediment trapping structures and vegetation; invasive species removal through prescribed burning; submerged aquatic protection and restoration; improvement to tidal hydrology through sediment or culvert placement; and biological monitoring.
- Expected Benefits: Restoration of 300 acres of wetland habitat and shoreline, including benefits to estuarine ecosystem function, and greater tidal exchange and drainage to reduce water stress, as well as promote optimal vegetative growth and plant biodiversity. *Corps members will gain skills in hydrologic planning; plant identification, herbicide application and invasive species removal; prescribed burning; shoreline protection techniques; and monitoring.*

Mississippi – Grand Bay NERR

Pine Savanna Restoration

- Need: Please see description above for pine savannah restoration.
- Restoration activities: Restoration will be achieved by recovering the natural process of intermittent fire, which supports the native vegetation and avian community. Activities will include mechanical clearing and invasive species removal both by crew and by large equipment, select use of herbicides, restoration of hydrology, remediation of contaminants, native grass seeding, and monitoring. Additionally, activities will include: 1) filling ditches that were historically created to drain water from land to be used for agricultural and livestock purposes, 2) minimizing the impacts of fire breaks, and 3) rehabilitating dirt roads and ATV trails that are not used for resource management or research.
- Expected benefits: This project will restore and maintain ecosystem function to 750 acres of pine savannah habitat. *Corps members will gain skills in plant identification and weed removal, herbicide application, fire ecology and prescribed burning procedures (as well as wildland firefighting skills), remote sensing (e.g., GPS, RTK), mechanical equipment operation, and biological monitoring.*

Texas – Mission-Aransas NERR

Provide invasive species removal and prescribed burning to Aransas National Wildlife Refuge (ANWR) and TNC Refugio-Goliad Conservation Area Invasive species removal and prescribed burns.

- Need: The 50,000-acre Refugio-Goliad Prairie contains one of the largest and highest-quality expanses of coastal tallgrass prairie remaining in Texas. Until the early 1990's, the

area supported one of the last known wild populations of the endangered Attwater's prairie chicken, and is generally considered to be the best location for future reintroductions. This region was historically a fire-dependent ecosystem; however, fire has been largely removed from the landscape for a century or more. Removal of fire has resulted in woody plant encroachment on the prairie. Habitat for many grassland-dependent wildlife species such as Attwater's prairie chicken is greatly reduced by woody plant invasion.

- Restoration Activities: Restore coastal prairie wetlands and uplands through invasive species removal and prescribed fire. Target species include prairie and wetland invaders such as Chinese tallow, mesquite, and saltcedar.
- Expected benefits: Restoration of these habitats will improve coastal prairie habitat utilized by protected species. Projects will occur on both government and private lands increasing local partnerships. *Crews will gain training and experience in invasive species treatments including herbicide and mechanical treatments, fire ecology, prescription burning, integrated pest management, and GPS, mapping, and land management skills, and biological monitoring*.

In addition to the skills shown for the above projects, corps members will be mentored and given practical experience in critical professional skills, such as: project planning and management, budgeting, team building, critical thinking, and report creation and presentations. Technical skills would include surveying and mapping, equipment operation, and field training. Additionally, corps members will have access to science-based training specific to environmental monitoring, including data collection and interpretation, and use of GPS, remote sensing and other geo-spatial tools.

III. Monitoring and Adaptive Management of the Projects

In line with the Council's commitment to science-based decision-making, the projects within this program will be designed, planned and implemented based on best available science and will evolve over time to incorporate new science, information and changing conditions. For each project, monitoring plans will be established to determine short and long-term changes in habitat conditions resulting from conservation actions using established NERRS or other programs that monitor water quality, biological communities, and physical conditions affecting habitat change. Projects will be designed to include monitoring to determine the success of the restoration, ecosystem response to the various restoration techniques, mapping of habitat response, and necessary adaptive management or 'lessons learned' from restoration actions. Project monitoring efforts will utilize sampling data collected by the corps network and/or volunteer monitoring programs. Specific protocols will be developed that can utilize 'citizen science'. Monitoring activities will vary from site to site and project to project. Outlined below, and broken out by project type, are the proposed monitoring metrics, duration, timing, and type of data to be collected (Table 1) at each applicable project site.

Table 1. Monitoring Activities by Project Type

Project Type	Monitoring Activities	Duration	Data
Invasive species removal	presence/absence; percent cover; efficacy of treatment; assessment of vulnerable species by observation	on-going quarterly, bi-annual, or annual as needed for 5 yrs	vegetation classification; photo data; treatment protocols; surveying and mapping
Prescribed burns	assessment for vulnerable species; brush and invasive species encroachment; vegetative composition and cover	on-going quarterly, bi-annual, or annual as needed for 5 yrs	vegetation classification; photo data; treatment protocols; surveying and mapping
Living shorelines	erosion rate; percent cover; species composition; quadrat sampling; sediment accretion	quarterly or bi-annually, as needed for up to 5yrs	surveying and mapping; photo data; field sheets; quadrat data
Oyster reefs	spat set; mortality; productivity; salinity and water clarity; species utilization	quarterly for up to 5 yr; continuous water quality sampling	quadrat data; mapping; water quality data
Seagrass	distribution; abundance; species composition; hydrology	continual hydrologic data collection; quarterly field sampling for 5 yrs	survey and mapping; photo data; hydrologic data; field sheets
Hydrologic	hydroperiod; salinity; water quality; circulation; vegetative composition and stress; species utilization	continual water quality data collection; quarterly field evaluation	hydrologic data; surveying; field sheets; photo data

Adaptive Management

Adaptive management, a process of learning by doing, wherein flexibility is built into projects, and actions can be changed based on their progress toward a defined end-state, will be used here to ensure success of the individual projects as well as the overall program. NOAA, the corps network, and project partners will meet quarterly to evaluate monitoring data, and project and corps' performance, to make adjustments as needed to the program. As the program and local experience mature, NOAA and its partners will evaluate the efficacy of the GCCC Program and apply adaptive management principles to refine and optimize efficiencies. This period of refinement will help identify the strengths and weaknesses of the program, apply lessons learned, and help better plan for GCCC stability after the life of this proposal. The long-term goal is to enable the GCCC to become self-sufficient, having provided them with the right relationships, training, and platform from which to expand.

IV. Measures of success for the proposed program

The success of the Program and its associated habitat and water quality restoration projects

will be measured to ensure the Council's commitment to measuring outcomes and impacts to achieve tangible results and ensure that funds are invested in a meaningful way.

Ecological measures

The ecological measures of habitat restoration and water quality projects completed by the GCCC will vary from project to project. Where possible, crew members will be trained in monitoring techniques to assist in accurate data collection. NOAA and its local partners, as applicable, will maintain a database of data collected, provide annual reporting and publications, and provide training and feedback to all participants. The types of metrics that will be utilized:

- Attainment of less than 5 percent cover of invasives/exotic flora
- Increased utilization of restored habitats by waterfowl and other native wildlife
- Percent coverage of oysters, emergent vegetation, forest canopy and understory vegetation
- Reduction in shoreline erosion and improvement of water quality
- Aquatic fauna relative frequency and abundance
- Areal extant of continuous seagrass beds

Gaging from the sample projects provided above, we anticipate that over *2,000 acres of coastal habitat will be restored* just within those locations, which does not include the long-term benefits beyond this proposal of a restoration-based work force.

Community impact measures

The corps network will collect and provide an annual report of the measures shown below. The target displayed is for context and a general assumption that is used for budget estimation and planning purposes. The actual number of crew members and total hours will be a function of the project and recruitment capacity that is realized within each state. Achievement will be documented by:

- Number of crew member hours of hands-on work experience
  - Target: ~352,000 crew member hours over 5 years (if funded at full capacity)
- Number of crew members trained
  - Total number of crew members trained will depend on the specific crew needs of a project. Some projects will require fewer crew members on a full- time basis for longer periods of time while other projects will need a greater number of crew members on a part-time basis over shorter periods of time.
- Type and number of trainings provided
  - The type and number of trainings will vary from project to project. Highly technical projects will require skill sets different from those obtained in more labor-intensive projects. Trainings will be tailored to project needs.

V. Risks and uncertainties of the proposed activities

There are two levels of risk involved with this program – program-level and project-level. On the program level, success is dependent upon the ability of a corps network to build local

capacity for crews to perform the restoration work. This risk will be mitigated first by the selection of a strong conservation corps partner with proven capability in supporting and promoting existing corps; developing relationships with new partners and increasing corps capacity; and coordinating the work of many corps organizations with a variety of federal, state and local partners. In particular, the partner will additionally have made extensive investments in the Gulf of Mexico region in terms of staffing and networking. Also mitigating the risk is NOAA's success in implementing the conservation corps model in other regions of the country. A Regional Project Coordinator will assist the corps network in identifying partners and building capacity.

On the project level, any restoration project based in a dynamic coastal system will be subject to unpredictable changing environmental conditions such as sea level rise, storms, subsidence and disease outbreak. Restoration projects will be designed to reduce the risk of harm through thorough environmental analysis as required under NEPA and other environmental regulations while optimizing project benefits in the face of environmental challenges. NOAA has built long-standing programs that have contributed to the restoration of a variety of coastal and marine habitats and resources. Through skilled teams including ecologists, oceanographers, engineers, and professional project managers, NOAA has either directly implemented or partnered on many hundreds of projects focused on coastal restoration, and will apply its experience to project implementation and risk management.

VI. Outreach and education opportunities

This proposal provides strong education and outreach capacity at its core. NOAA and its partners are reaching local communities by recruiting local people to perform restoration work. These newly trained individuals will serve as representatives and mentors throughout their community in natural resource restoration. The project team will develop a thorough strategy regarding how and when to engage the public in the project planning process, depending upon project location and the existing educational capacity of the local area. Strategies may include 1) planned site tours for the public hosted throughout project implementation, 2) posting interpretive signs at accessible locations, 3) producing videos and written materials to share success and demonstrate project benefits, 4) developing and maintaining a web page with a photo gallery to share the work of the program with the public, 5) developing a blog where partners share success stories and accomplishments about their restoration projects, and 6) working with our partners to promote the program to government leaders and industry members. Outreach and education efforts will leverage existing resources, including local schools, and the many community groups active within the project areas. There is also opportunity to partner with various education initiatives within NOAA such as the BWET and Estuaries 101 programs, which are environmental education programs that promote locally relevant, experiential learning in the K-12 environment. Additional program components dedicated to training, education, community outreach and stewardship are described in the following sections and "*Other Information*".

VII. Leveraging Resources and Partnerships

The strength of this proposal in building restoration capacity and restoring habitat lies in its ability to both forge and leverage new and existing partnerships. Partnerships with conservation corps active in some Gulf states provide opportunities to enhance local networks. NERRS capabilities for environmental monitoring (e.g., System-Wide Monitoring Program, Sentinel Site Cooperative), habitat mapping and restoration through stewardship staffs, and training through the Coastal Training Program are all foundational elements. Partnerships with universities, government agencies, and local groups will also be leveraged. For example, the U.S. Fish & Wildlife Service manages lands adjacent to Reserves, which expands opportunities for Corps work experience. Through its many programs, NOAA and/or DOC have existing relationships that can be leveraged to collaborate on the planning and implementation of this initiative. These partnerships include, but are not limited to:

- USFWS National Wildlife Refuges
- US Department of Agriculture
- US National Park Service
- State parks and reserves
- Local universities and colleges
- National Estuary Programs
- US Geological Survey
- National Geodetic Survey
- NERRs
- Natural resource non-profits

Leveraging the Coastal Training Programs on the NERRs

The NERRs have existing training capacity to coordinate classes and workshops on diverse topics that facilitate stewardship and training to increase specific job skills for local workforces, as well as formal and informal educators, and other audiences. Topics of training may include: landscape design, machinery operation, invasive plant identification and removal, GIS applications, low impact development practices, lawn care certification, and HAZMAT training and certification in partnership with local universities. Additionally, other workshops offered by their Coastal Training Program focus on the ecological importance of the estuaries, grant writing, wetland mitigation, vulnerability assessments, storm water management and coastal hazards, Wilderness First Aid, and principles of ecological restoration. The NERRs also provide technical assistance to facilitate processes to develop and implement stewardship policies and practices, and are able to provide “Train the Trainer” programs which would be invaluable to the corps network.

VIII. Program benefits

Modeled after the Civilian Conservation Corps that originated in the Great Depression, today’s modern Corps offers multiple benefits when employed to complete restoration activities. The particular program model contemplated in this proposal, which is built on partnerships among federal, state and corps organizations, has been implemented successfully by NOAA in other regions and will successfully bring similar benefits to the Gulf of Mexico region, such as:

Ecologic Benefits:

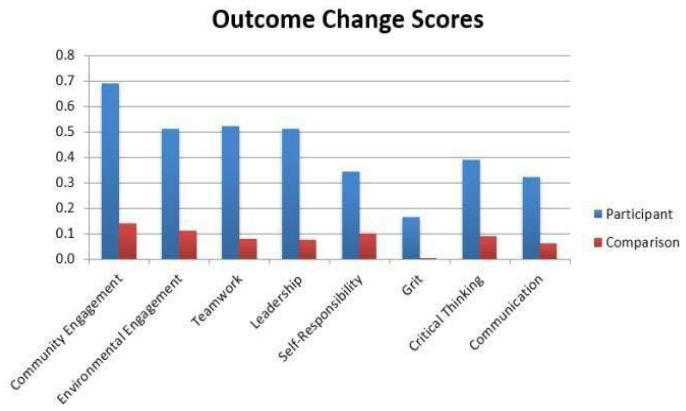
- Creation of fish and wildlife habitat
- Enhanced habitat productivity
- Improved habitat sustainability
- Improved land management
- Focus on conservation and stewardship

Economic Benefits:

- Trained, local labor force
- Employment for at-risk citizens
- Provides professional mentoring
- Results in transferable skills
- Promotes community resiliency

The impact of corps experiences on participants is equally impressive. The 2013 PLSC Evaluation Report assessed this impact through pre- and post-surveys of 1,334 corps participants and 984 comparison group members in terms of targeted outcomes such as civic engagement, leadership, intentions to pursue additional education and their confidence to obtain employment. Compared to the general population comparison group, significant increases were observed for the corps participations across all of the outcome measures. The strongest outcomes were seen in teamwork, community engagement, leadership and environmental engagement (Figure 1).

Figure 1. The impact of corps experiences on participants.



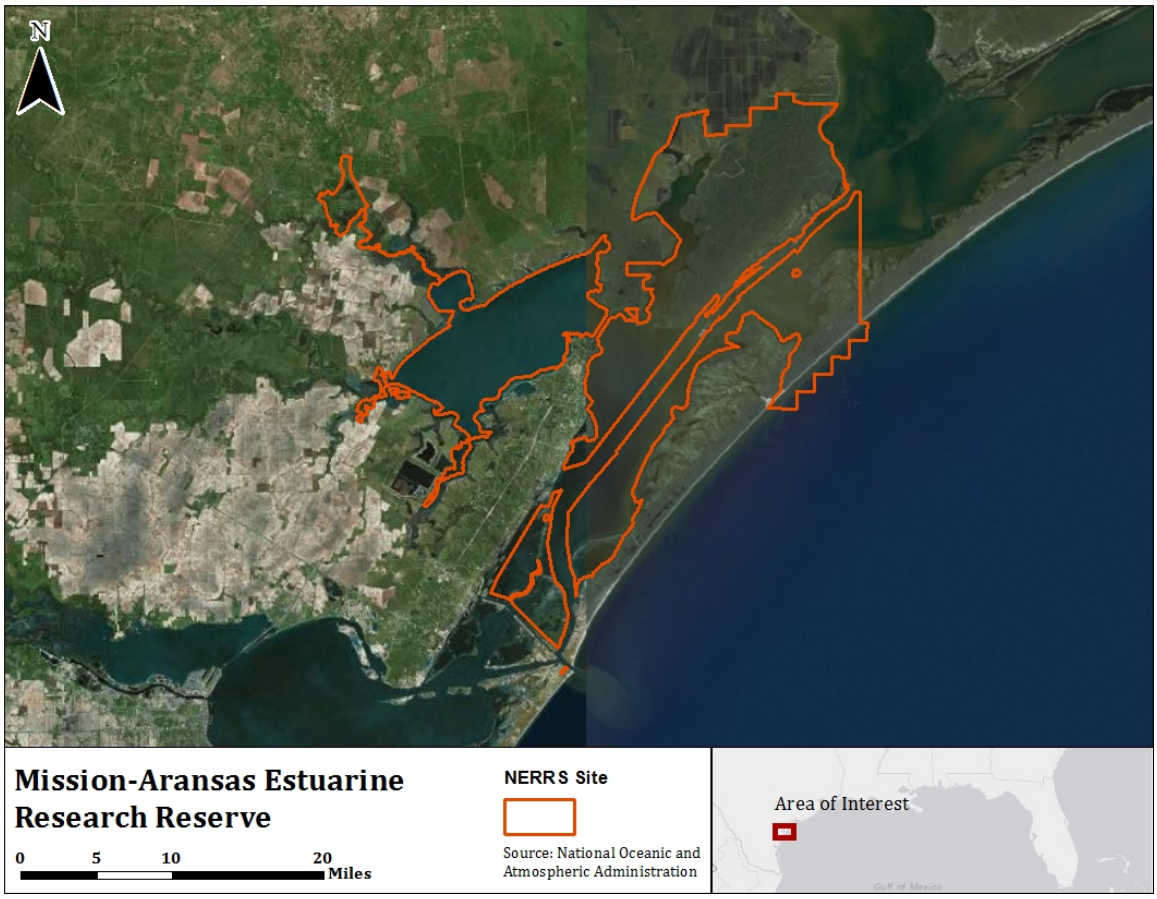
This program is mutually beneficial between the RESTORE Council and coastal communities, because the GCCC will be an on-going source for local labor that is specifically trained to implement some of the restoration project types that are likely to be funded now and in the future. GCCC members will be recruited using labor statistics and local partnerships that aim to benefit the most depressed coastal economies and optimize benefits to the human community.

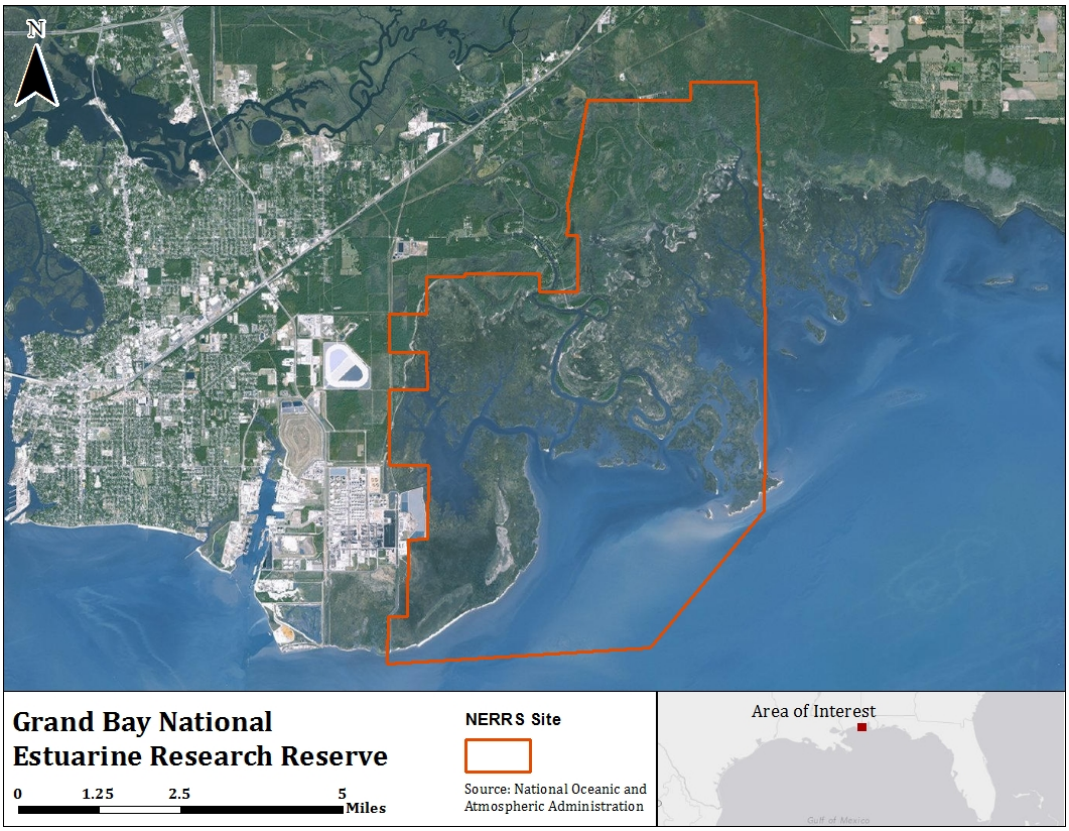
Moreover, the diversity of habitat restoration proposed by this initiative will support the critical functional and ecosystem roles that coastal habitats provide across the Gulf coast. These projects will enhance habitat for threatened and endangered species, and help sustain the recreation, tourism, and estuarine-dependent commercial and recreational fisheries that play a key role in the region's economy. Since these projects are located on managed lands, the restoration benefits derived from these activities will be perpetuated by careful land stewardship and conservation well beyond the life of this proposal.

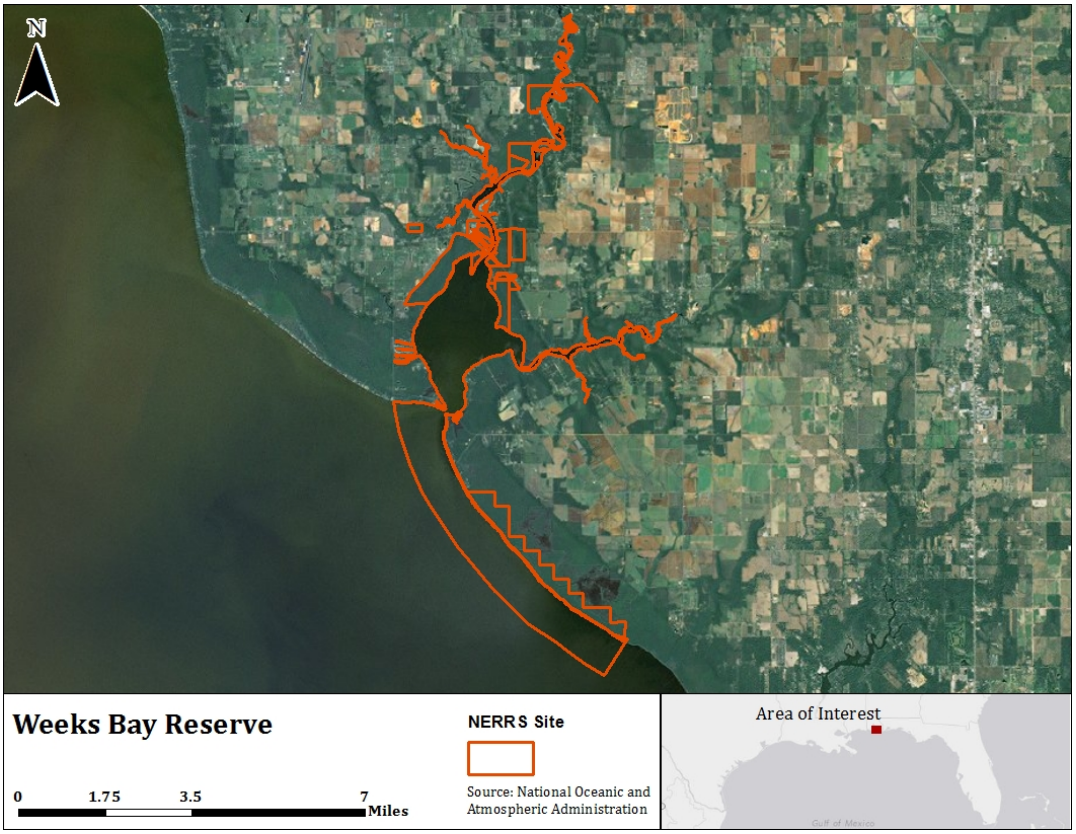
APPENDICES:

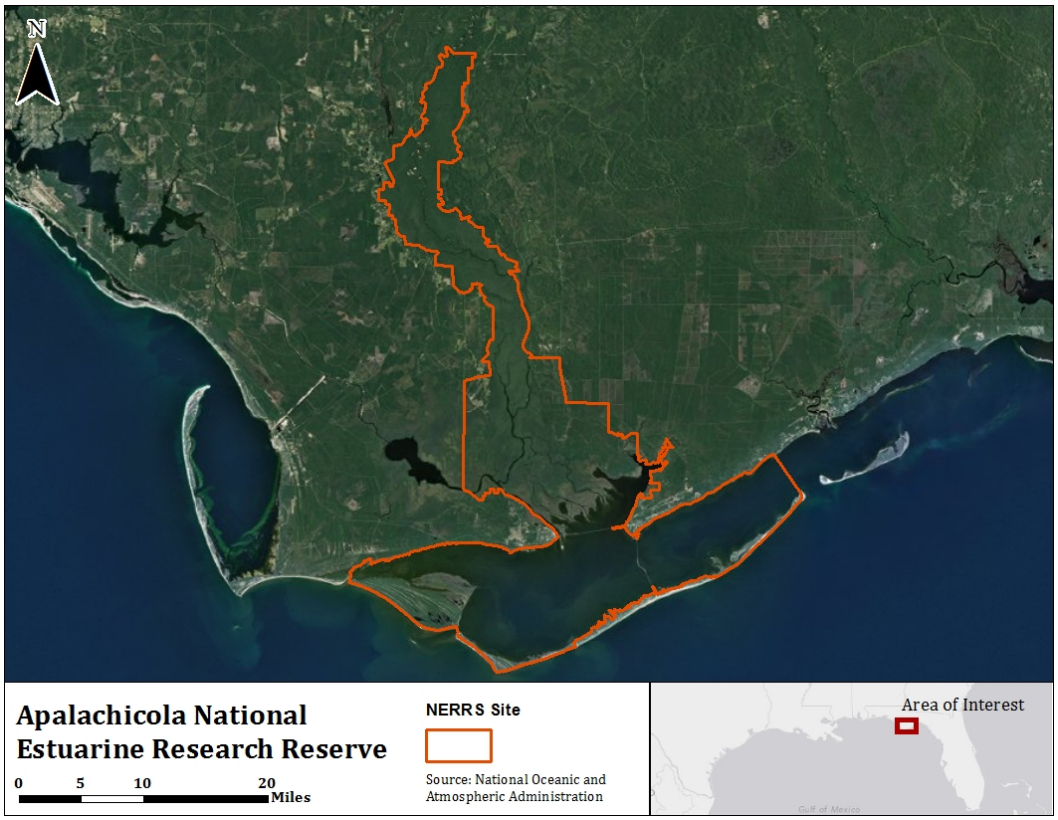
Location information

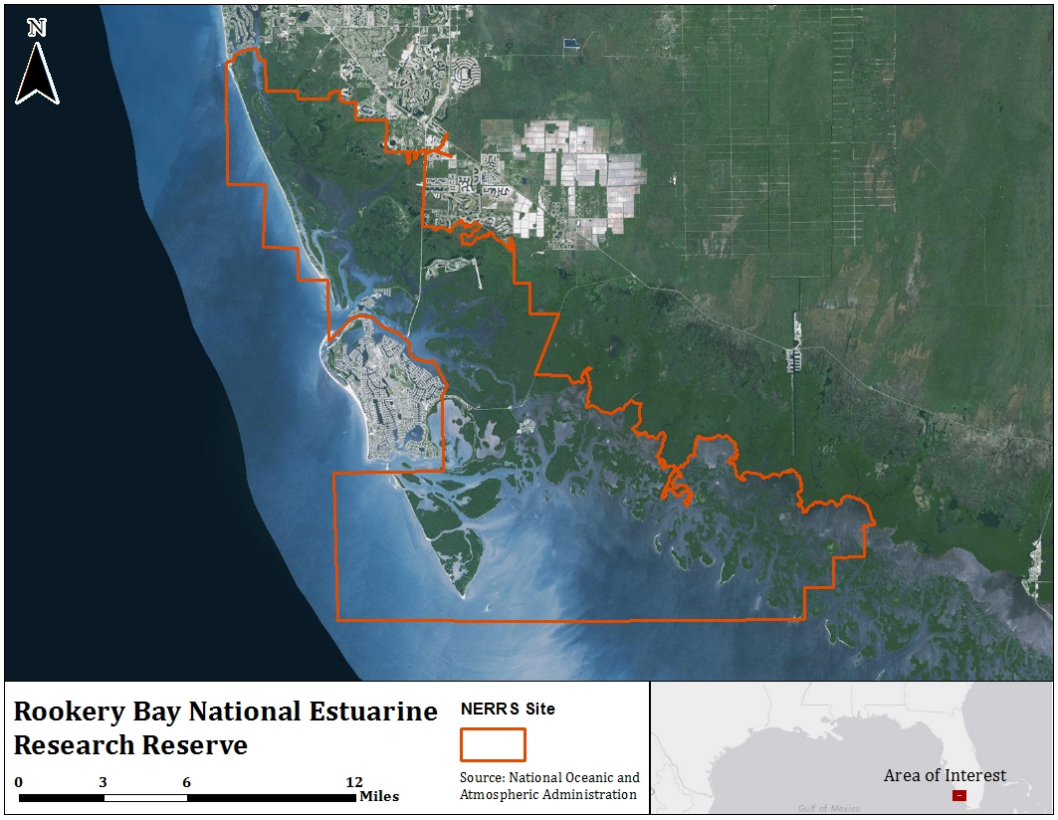
The projects will take place in the five Gulf of Mexico states of Florida, Mississippi, Alabama, Louisiana, and Texas. The five National Estuarine Research Reserves (NERRs) are ideal locations for GCCC restoration projects, and their specific locations are shown in the maps below:




N
Grand Bay National
Estuarine Research Reserve
0 1.25 2.5 5
Miles
NERRS Site
Source: National Oceanic and
Atmospheric Administration
Area of Interest

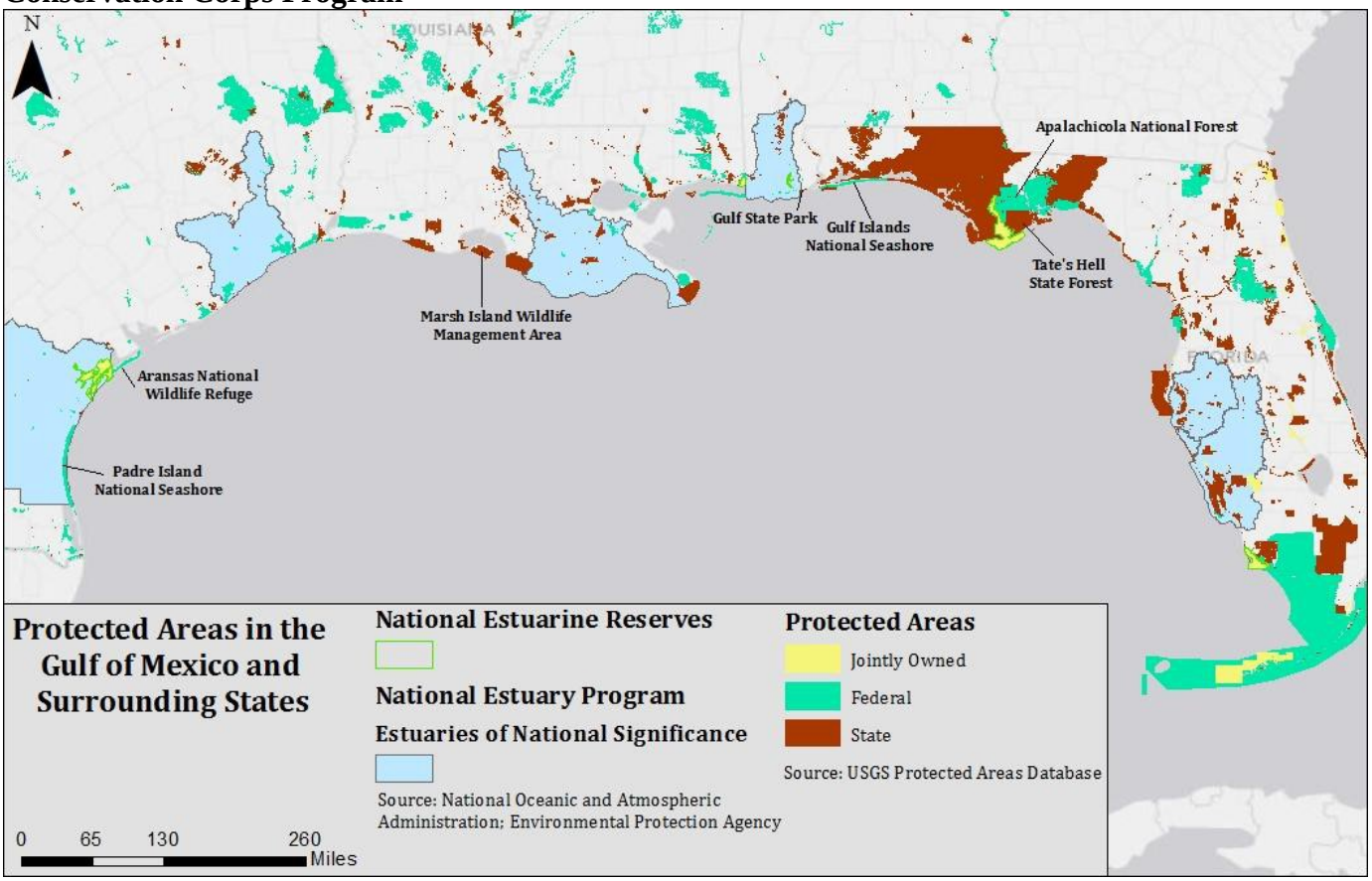

N
Weeks Bay Reserve
0 1.75 3.5 7
Miles
NERRS Site
Source: National Oceanic and
Atmospheric Administration
Area of Interest


N
Apalachicola National Estuarine Research Reserve
0 5 10 20 Miles
NERRS Site
Source: National Oceanic and Atmospheric Administration
Area of Interest


N
Rookery Bay National Estuarine Research Reserve
0 3 6 12 Miles
NERRS Site
Source: National Oceanic and Atmospheric Administration
Area of Interest

Other possible project locations, especially in Louisiana which does not have a NERR, include public lands across the gulf coast in each Gulf state. These may include state parks, aquatic preserves, wildlife management areas, federal or state refuges, or other publicly conserved lands. The map below shows the general locations and distribution of public lands across the Gulf coast. Additionally, the map shows the extent of National Estuary Programs (NEPs) across the Gulf. Although not completely publicly owned, the estuaries that are included within the National Estuary Programs (NEPs) administered by the Environmental Protection Agency may provide a valuable location for future work of this Program as it complements the management initiatives of the NEPs as well.

Protected state and federal lands that serve as potential future restoration sites for the Gulf Coast Conservation Corps Program



Budget Narrative

The total cost of this five year program is estimated at $20.4 million (Table 1). Funds will be distributed to a conservation corps network organization and our federal and state project partners. Cost breakouts are as follows:

1) Project Implementation

Crew Labor and Specialized equipment

A total of $12.5 million is allocated specifically to the provision of corps crew labor, travel, general training, insurance, and oversight and supervision. The cost of a conservation corps crew depends on a variety of factors (such as the location and type of project, available labor pool and organizational structure of the local corps organization), but on average is $10,000 per week per crew (one crew = 8 workers), which includes the costs of labor, transportation for crew members, and all non-specialized supplies and equipment needed to perform the restoration work. This proposal plans for approximately 50 crew weeks in each state per year of restoration work (400,000 crew member hours in total). One million dollars ($1 million) is allocated for the purchase or rental of specialized equipment required for specific projects.

State Partners

Funds in the amount of $3 million are budgeted to support the participation of regional partners. These funds could support one or more full or part-time personnel within each gulf state, based on project and resource need as determined by our state partners.

- **Roles and Responsibilities of State Project Coordinators and project personnel**
  State Project Coordinators (SPC) will be located in each of the five Gulf states. SPCs are restoration scientists and managers who will collaborate with NOAA and the corps network organization to prioritize and phase habitat restoration projects in their state. They will guide the implementation of selected projects, and work with the corps network organization to outline the labor needs for the projects. When feasible, SPCs will leverage existing training programs and/or work with NOAA to develop new training for corps members. Additionally, funding is provided for each location to have project superintendents to help guide and provide technical instruction to the crew members. These positions will be occupied at the locations of greatest work volume and at the discretion of our state partners.

Training

A half million dollars ($0.5 million) is set aside to fund the development and implementation of specialized training for crew team leaders and members. Training modules will be developed in partnership with regional/state partners and a corps network organization. These funds will supplement the training capabilities of the corps network, and will provide funding for

specialized restoration training that will be required for implementation of selected projects. Such training may include, but not be limited to: surveying, mechanical equipment operation, monitoring data collection and analysis, boat or vehicle operation, safety training, field biology, land management practices, and other vocational or scientific specialties. There are several training venues located across the Gulf coast, including: NERRs, Sea Grant Extension offices, the new Habitat Restoration Technology Training Center, federal refuges, National Estuary Programs, USDA Cooperative Extension and Research offices, and other existing short-term training and educational opportunities provided by local colleges, institutes or other state and federal programs. More information on some of these venues is provided on page 5 in the "Other Information" section. Funds are needed to send corps members to these facilities, as well as to support our partners to acquire the additional resources needed to dedicate personnel to conduct the training. NOAA will distribute said funds to our local partners, as needed based on project selection and corps planning, to offset their costs for providing training.

2) Program Management

Approximately $3.31 million is budgeted for program administration.

A Conservation Corps Network

A leading conservation corps network organization operating locally and regionally in the Gulf of Mexico will be responsible for a wide range of activities that represent the core of the program: working with federal and state partners to determine restoration project needs in terms of training and labor; engaging existing corps and developing new corps programs as necessary to meet project requirements; providing and coordinating corps labor and training; and conducting program evaluation to ensure the program is meeting its objectives. Two million dollars ($2 million) over five years is allocated for recruitment, corps development and operation, corps coordination and technical assistance, program evaluation and reporting, and general administrative costs of the corps network to run the program above and beyond the labor costs.

NOAA

Funds are available for one Program Coordinator ($0.75 million) and one Regional Project Coordinator ($0.5 million). Travel costs for the Program Coordinator and Regional Project Coordinator are also included and estimated at $50,000 for the five years ($10,000 per year for travel to one site per quarter).

- **Roles and Responsibilities of a Program Coordinator**
  The Program Coordinator (PC) is the primary manager that performs the essential functions of long-term strategic planning and oversight for the entire program. The PC is responsible for analyzing the program needs such as project development, training and workforce development, as well as tracking project implementation and evaluating program performance. S/he will ensure that the program stays focused on

identified program objectives, and identifies new areas for program development and growth that align with regional restoration goals and local workforce development needs. The PC is responsible for outreach to state and federal agencies (as well as education and outreach to the public), coordinates closely with the RPC to build capacity and buy-in from regional partners, and coordinating with the Department of Commerce on program status, needs, and performance. S/he will ensure that the program meets all environmental compliance requirements, will evaluate and document program successes and achievements, and will develop next steps and direction for program growth. The PC is the point of contact with the RESTORE Council and staff, and is responsible for all program tracking and reporting.

- **Roles and Responsibilities of a Regional Project Coordinator (RPC)**
  The RPC will serve primarily as a liaison between the state partners and a corps network organization. This individual will be responsible for reviewing the established training and labor needs for the range of identified projects across the states, and work with a corps network organization to determine the phasing of project implementation based on project selection criteria. In particular, the RPC works closely with both the State Project Coordinators and a corps network organization to identify training gaps, and recommends the direction of funds to develop new trainings as necessary.

  The RPC will cooperate with the corps network organization to forge partnerships between corps groups and state and federal entities across the Gulf region to build corps capacity to meet Gulf restoration needs. This type of capacity building is essential to lay the groundwork for a robust and reliable program that can consistently provide trained labor across the five Gulf states. The RPC facilitates efficient communication across all states to share and promote best practices. Along with a corps network organization, the RPC cultivates relationships with community leaders to identify potential workforce needs and align them with local conservation corps and restoration needs of state and federal land managers. The RPC promotes and facilitates collaborative relationships between a corps network organization and state and federal natural resource agencies to maximize career opportunities to crew members and restoration outcomes. S/he also works closely with the Program Coordinator to identify priorities and inform the direction of program growth.

Table 1: Budget Breakout

(See list of in-kind expenses that can be leveraged, below this table)

	Annual	5 Years
Project Implementation		
Mission Aransas NERR, TX		
• Crew labor, transportation, and general supplies ($10,000/week x 50 weeks)	$500,000	$2,500,000
• State Project Coordinator(s) and project personnel	120,000	600,000
• Project-specific materials and/or rental of specialized equipment	40,000	200,000
• Specialized training		
• Long-term monitoring equipment (eg., EXO datasondes – one-time purchases)	20,000	100,000
TOTAL -- TX	20,000	20,000
	$700,000	**$3,420,000**
Rookery Bay NERR and Apalachicola NERR, FL		
• Crew labor, transportation, and general supplies ($10,000/week x 50 weeks)	$500,000	$2,500,000
• State Project Coordinator(s) and project personnel	120,000	600,000
• Project-specific materials and/or rental of specialized equipment	40,000	200,000
• Specialized training		
• Long-term monitoring equipment (eg., EXO datasondes – one-time purchases)	20,000	100,000
TOTAL -- FL	20,000	20,000
	$700,000	**$3,420,000**

Grand Bay NERR, MS • Crew labor, transportation, and general supplies ($10,000/week x 50 weeks) • State Project Coordinator(s) and project personnel • Project-specific materials and/or rental of specialized equipment • Specialized training • Long-term monitoring equipment (eg., EXO datasondes – one-time purchases) **TOTAL -- MS**	$500,000 120,000 40,000 20,000 20,000 **$700,000**	$2,500,000 600,000 200,000 100,000 20,000 **$3,420,000**
Weeks Bay, AL • Crew labor, transportation, and general supplies ($10,000/week x 50 weeks) • State Project Coordinator(s) and project personnel • Project-specific materials and/or rental of specialized equipment • Specialized training • Long-term monitoring equipment (eg., EXO datasondes – one-time purchases) **TOTAL -- AL**	$500,000 120,000 40,000 20,000 20,000 **$700,000**	$2,500,000 600,000 200,000 100,000 20,000 **$3,420,000**
Big Branch and Bayou Savage Refuges, LA • Crew labor, transportation, and general supplies ($10,000/week x 50 weeks) • State Project Coordinator(s) and project personnel • Project-specific materials and/or rental of specialized equipment • Specialized training • Long-term monitoring equipment (eg., EXO datasondes – one-time purchases) **TOTAL -- LA**	$500,000 120,000 40,000 20,000 20,000 **$700,000**	$2,500,000 600,000 200,000 100,000 20,000 **$3,420,000**
Sub-total – Project Implementation	**$3,500,000**	**$17,100,000**

Program Management		
Conservation Corps Network	$400,000	$2,000,000
NOAA Program Coordinator	150,000	750,000
NOAA Regional Project Coordinator (located in the Gulf Region)	100,000	500,000
Travel for Regional Project Coordinator and HQ Program Coordinator (one state site visit per quarter) $2.5K per trip x4/yr	10,000	50,000
Video describing the nature of the work and highlighting the accomplishments of the Gulf	10,000	10,000
Sub-total -- NOAA	**$670,000**	**$3,310,000**
PROGRAM TOTAL	**$4,170,000**	**$20,410,000**

***In-kind expenses that can be leveraged:**

- Partners' management plans with pre-identified categories of restoration
- NERRs Coastal Training Program
- Partners' Education & Outreach programs

Environmental Compliance

All restoration activities proposed in this proposal will fully comply with all federal statutory and regulatory procedures, including necessary state and local permits and other authorizations, prior to implementation. Through funding or technical expertise, NOAA supports over 200 habitat restoration projects each year. All of these projects are assessed for environmental impacts in accordance with the NEPA process using programmatic and project-specific NEPA documents. To increase efficiency and reduce redundancy for future projects, NOAA developed a Programmatic Environmental Impact Assessment (PEIS) (NOAA 2014) that will be evaluated for applicability to projects proposed for this initiative. Within this document, likely impacts are evaluated for both programs such as conservation corps, as well as impacts related to the likely restoration activities corps organizations complete. A finding of no significant impact was made on these activities.

Project-specific impacts will be assessed for each proposed restoration project at the earliest possible time to ensure environmental issues are identified; that consultation among agencies and the public occurs; and to determine whether an Environmental Assessment (EA) or a Categorical Exclusion (CE) is the appropriate level of analysis. Some projects may require a detailed analysis; in other instances, tiering from an EA or another EIS will be the preferred approach.

Projects that are small in scope and effect may fit the criteria for a CE determination. "Categorical Exclusion" (CE) is defined as decisions granted to certain categories of actions that individually or cumulatively do not have the potential to pose significant impacts on the quality of the human environment and are therefore exempted from both further environmental review and requirements to prepare environmental review documents (40 C.F.R. R. 1508.4, NAO 4.01.c). It is likely that several of the activities proposed under this program will quality for a CE. Additionally, given that these activities are proposed on public lands, it is also likely that environmental clearances have already been granted for a suite of restoration actions that are most common to their land management practices.

Gulf Coast Ecosystem Restoration Council
Environmental Compliance Checklist

**The checked boxes indicate the permits and regulatory requirements that are anticipated for the type of activities proposed under this proposal. Specific requirements will vary by project; however, the majority of the requirements are reflected below.*

Environmental Compliance Type	**Yes**	**No**	**Applied For**	**N/A**
Federal				
National Marine Sanctuaries Act (NMSA)				
Coastal Zone Management Act (CZMA) Fish and Wildlife Coordination Act	X			
Farmland Protection Policy Act (FPPA)				
NEPA – Categorical Exclusion NEPA – Environmental Assessment NEPA – Environmental Impact Statement	X X			
Clean Water Act – 404 – Individual Permit (USACOE)				
Clean Water Act – 404 – General Permit(USACOE) Clean Water Act – 404 – Letters of Permission(USACOE)	X			
Clean Water Act – 401 – WQ certification				
Clean Water Act – 402 – NPDES				
Rivers and Harbors Act – Section 10 (USACOE)				
Endangered Species Act – Section 7 – Informal and Formal Consultation (NMFS, USFWS)	X			
Endangered Species Act – Section 7 - Biological Assessment (BOEM,USACOE)				
Endangered Species Act – Section 7 – Biological Opinion (NMFS, USFWS)				
Endangered Species Act – Section 7 – Permit for Take (NMFS, USFWS)				
Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH) – Consultation (NMFS)	X			
Marine Mammal Protection Act – Incidental Take Permit (106) (NMFS, USFWS)				
Migratory Bird Treaty Act (USFWS) Bald and Golden Eagle Protection Act – Consultation and Planning (USFWS)	X			
Marine Protection, Research and Sanctuaries Act – Section 103 permit (NMFS)				
BOEM Outer Continental Shelf Lands Act – Section 8 OCS Lands Sand permit				
NHPA Section 106 – Consultation and Planning ACHP, SHPO(s), and/or THPO(s)	X			
NHPA Section 106 – Memorandum of Agreement/Programmatic Agreement				
Tribal Consultation (Government to Government)				
Coastal Barriers Resource Act – CBRS (Consultation)				
State				
As Applicable per State	X			

Data/Information sharing plan

The NOAA Directive on Data Management guides the agency's data management activities. The directive states that environmental data will be visible, accessible and independently understandable to users, except where limited by law, regulation, policy (such as personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. Environmental data includes observations and measurements of physical, chemical, biological, geological, and geophysical properties and conditions of the environment, as well as correlative data, such as socioeconomic data, related documentation, and metadata. Depending on project type, a variety of environmental data and information will be generated over the course of the program:

Invasive species removal/prescribed burns

Data and information will be developed on the plant and avian communities and will be provided through a dedicated database (available online). All data will be quality checked and assured, and will follow specific guidelines for format, metadata, quality, and content. We will utilize our existing policies addressing data stewardship and preservation. We will follow our outlined procedures for providing access, sharing and security of these data and datasets.

Oyster reef restoration and living shoreline installation

All data are public. We would QA/QC data in house and publish following the completion of the monitoring period.

Hydrologic restoration

Multiple data will be collected related to this restoration. USGS will be partnered with RBNERR ensuring full data sharing. All vegetation monitoring, SETs, nutrient sampling, and fauna sampling will follow established USGS and FDEP methods and standards, including QA/QC and database construction with full metadata. Access to data will be made available to anyone who makes a request. RBNERR can work to include data on our webpage as a featured restoration project. Data will be available to corps members for training purposes and for demonstration.

Assessment of sea grass beds

Data may include detailed mapping and seasonal trend analyses of historical and restored grass beds. All field and GIS activities will follow widely used and accepted methodologies developed by government and academic entities. Results will be published in technical reports and/or peer-reviewed scientific journals.

Data collected under this proposal will undergo verification by NOAA to ensure the quality, utility, and integrity of the information collected. Once data has been through the approved QA/QC procedures, NOAA will share approved data through the NOAA Restoration Atlas and other appropriate websites.

Standards to be used for data/metadata format and content

NOAA's directive for metadata establishes ISO 19115 Parts 1 and 2 and a recommended representation standard (Extensible Markup Language (XML) formatted per the ISO 19139 schema) for documenting NOAA's environmental data and information. Geospatial data will be documented using the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata. There are different profiles of the FGDC Content Standard that will be applied based as appropriate for each project: Shoreline data, Classification of Wetlands and Deep Water Habitats, Digital Orthoimagery, Soils, and Vegetation. As required by the NOAA Data Access Procedural Directive, environmental data will be made accessible via the Internet, except in limited circumstances, using open-standard, interoperable, non-proprietary web services (for example, OPeNDAP, or Open Geospatial Consortium (OGC) web services) where feasible.

Policies addressing data stewardship and preservation

NOAA Administrative Order (NAO) 212-15 establishes environmental data management policy for NOAA and provides high-level guidance for procedures, decisions and actions regarding environmental data management and establishes the policy directives that would guide data stewardship and preservation efforts under this proposal.

Procedures for providing access, sharing, and security

Management of NOAA environmental data will be based upon an end-to-end data management lifecycle that includes:

- Determining what data are required to be preserved and how;
- Developing and maintaining metadata that comply with standards;
- Obtaining user requirements and feedback;
- Developing and following data management plans with the appropriate NOAA archive;
- Conducting data stewardship to address data content, access, and user understanding;
- Providing for delivery to the archive and secure storage

List of Literature Cited in the Proposal

Dahl, T.E. and S.M. Stedman. 2013. Status and trends of wetlands in the coastal watersheds of the Conterminous United States 2004 to 2009. U.S. Department of the Interior, Fish and Wildlife Service and National Oceanic and Atmospheric Administration, National Marine Fisheries Service. (46 p.)

Diefenderfer, H.L., Thom, R.M. & Adkins, J.E. 2003. Systematic Approach to Coastal Ecosystem Restoration. Prepared for NOAA Coastal Services Center, Charleston, SC, by Battelle Marine Sciences Laboratory. Sequim, WA PNWD-3237.

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National Park Service, Park Facility Management Division, Department of the Interior. 2012. Conservation Corps Project Analysis, Fall 2012.

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The Corps Network. 2013. The Corps Network FY13 Annual Report http://www.corpsnetwork.org/annual-reports-and-financials

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Other Information

Content:

1) Letters of participation
2) Economic and Workforce Collaboration with the Department of Commerce
3) Partial sample of existing GOM training, education and outreach programs
4) Documentation of previous NOAA Corps experience
5) Employment Statistics per Gulf State for Youth and Veterans
6) Detailed maps of potential locations for restoration projects overlayed with employment information

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GRAND BAY
National Estuarine Research Reserve - Mississippi

November 14, 2014

Cheryl Brodnax
NOAA Restoration Center
5304 Flanders Dr. Suite B
Baton Rouge, LA 70808-7206

Dear Ms. Brodnax,

On behalf of the Grand Bay National Estuarine Research Reserve, I am writing to inform you that we are a willing partner to assist in the implementation of the proposed project entitled *Gulf of Mexico Habitat Restoration via Conservation Corps Partnerships*, which is being submitted to Gulf Coast Ecosystem Restoration Council. The proposed project will help develop and deploy a Gulf Coast Conservation Corps that could assist in the implementation of restoration projects at the Reserve. The proposed project will provide benefits to local restoration practitioners by providing workforce training to labor crews available to work on projects, and economic benefits for the local community by providing paid employment and professional development opportunities to local citizens. This project has the potential to support several aspects of ongoing restoration work at the Reserve. If the project is funded, we will provide the expertise and guidance to determine training needs, design and plan restoration work, develop all permits and environmental compliance needs, develop all monitoring programs and protocols, and lead work activities. We will also work with our partners at U.S. Fish and Wildlife Service Grand Bay National Wildlife Refuge to execute any specialized trainings, coordinate activities with crew leaders, and supervise project performance. We are looking forward to partnering with your organization and colleagues on building a project that strengthens economies as well as ecosystems.

Please let me know if you have questions or need any additional information.

Sincerely,

Ayesha Gray, Ph.D.
Director, Grand Bay National Estuarine Research Reserve

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Apalachicola National Estuarine Research Reserve
108 Island Dr. Eastpoint, FL 32328
850-670-7700

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

November 10th, 2014

Chris Doley, Chief
Restoration Center, NOAA Fisheries
Office of Habitat Conservation
1315 East-West Highway SSMC3, 14th Floor F/HC3
Silver Spring, Maryland 20910

Dear Mr. Doley,

The Apalachicola National Estuarine Research Reserve appreciates the opportunity to partner with the National Oceanic and Atmospheric Administration (NOAA) on its "Gulf Coast Conservation Corps" proposal to be submitted to the Gulf Coast Ecosystem Restoration Council (the Council), for funding under the Council Selected Component of the RESTORE Act.

Reserve staff would be willing and active participants for implementing the NOAA proposal should it be selected by the Council for inclusion in their Funded Priorities List.

Should you have any questions, please feel free to contact me at 850-670-7716 or Jennifer.harper@dep.state.fl.us.

Sincerely,

Jennifer Harper

Jennifer Harper
Regional Administrator, Florida Coastal Office
Manager, Apalachicola National Estuarine Research Reserve

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
ROOKERY BAY NATIONAL ESTUARINE
RESEARCH RESERVE
300 TOWER ROAD
NAPLES, FL 34113

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

October 31, 2014

Chris Doley, Chief
Restoration Center, NOAA Fisheries
Office of Habitat Conservation
1315 East-West Highway SSMC3, 14th Floor F/HC3
Silver Spring, Maryland 20910

Dear Mr. Doley,

The Rookery Bay National Estuarine Research Reserve appreciates the opportunity to partner with the National Oceanic and Atmospheric Administration (NOAA) on its proposed "Conservation Corp" proposal to be considered for submittal to the Gulf Coast Ecosystem Restoration Council (the Council), for funding under the Council Selected Component of the RESTORE Act.

Reserve staff would be willing and active participants for implementing the NOAA proposal should it be selected by the Council for inclusion in their Funded Priorities List.

Should you have any questions, please feel free to contact me at 239-530-5943 or at gary.lytton@dep.state.fl.us.

Sincerely,

Gary Lytton
Director

Marine Science Institute

THE UNIVERSITY OF TEXAS AT AUSTIN

November 13, 2014

Chris Doley, Chief
Restoration Center, NOAA Fisheries
Office of Habitat Conservation
1315 East-West Highway SSMC3, 14th Floor F/HC3
Silver Spring, Maryland 20910

Dear Mr. Doley,

The Mission-Aransas National Estuarine Research Reserve (NERR) is pleased to collaborate with the National Oceanic and Atmospheric Administration on the *Gulf Coast Conservation Corps* proposal to be submitted to the Gulf Coast Ecosystem Restoration Council for funding under the Council Selected Component of the RESTORE Act.

Mission-Aransas NERR staff commit to work with partners who manage lands within the reserve boundary to implement the *Gulf Coast Conservation Corps* project, if it is selected for funding. These partners include the Aransas National Wildlife Refuge, Goose Island State Park, and Fennessey Ranch. The Mission-Aransas NERR and our partners are excited about the opportunity to implement the proposed restoration projects and to help build a knowledgeable and skilled conservation corps in the Gulf of Mexico.

Please do not hesitate to contact me if you need more information.

Sincerely,

Carolyn Rose

Carolyn Rose
Interim Manager
Mission-Aransas National Estuarine Research Reserve
University of Texas Marine Science Institute
750 Channel View Drive
Port Aransas, TX 78373
Phone: 361-749-3152
carolyn.rose@utexas.edu

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Southeast Louisiana Refuges
Atchafalaya, Bayou Sauvage, Bayou Teche, Breton,
Big Branch Marsh, Bogue Chitto, Delta, and Mandalay
61389 Hwy 434
Lacombe, Louisiana 70445

REF: SLR-15-1 November 21, 2014

Cheryl Broulnax
NOAA Restoration Center
Baton Rouge, La 70808

Dear Cheryl,

The Southeast Louisiana Refuges Complex supports your efforts in developing a program supported by the Restore Act to create a trained workforce including hiring work leaders to supervise the workers. We encourage a collaborative approach between NOAA and the refuges in Southeast Louisiana to work to gain a volunteer labor force to conduct restoration activities on refuges. Some of these activities could include making repairs to Christmas tree fences, planting marsh grass, and maintaining and repairing our boardwalks and fishing piers among some of the projects we could collaborate on.

Sincerely,

Daniel Breaux
Refuge Manager

2) Economic and Workforce Collaboration with the Department of Commerce

Economic Development Administration (EDA)
We will explore synergies between RESTORE Act planning and implementation with the economic districts' comprehensive economic development strategies with the EDA would be an increased synergy between RESTORE Act planning and implementation. Another possibility we will explore is the pursuit of infrastructure dollars that could support the development of work force training.

Economics and Statistics Administration (ESA)
The ESA could provide assistance with tracking and evaluation of the workforce development program's performance.

Minority Business Development Administration (MBDA)
Given that there are over 120 Historically Black Colleges and Universities and Minority-Serving Institutions in the RESTORE Act area that produce skilled Science Technology Engineering and Math professionals (STEM), the MBDA could help to maximize the contribution of these institutions to gulf coast restoration and economic diversification, and strengthen the workforce development initiatives in the region.

Gulf Coast Innovation Center (GCIC) will be a hub of collaboration for start-ups and existing businesses to engage "lab to market" strategies and to research/test "proof of concept" of their work. The program will leverage the considerable resources of National Federal Laboratories and the cutting edge curriculums of Minority Serving Institutions (MSIs) to assist and encourage the development of new ideas and concepts that manifest solutions to pre-existing and yet unfolding economic and ecological challenges in the Gulf Coast. These efforts will serve as an excellent opportunity to advance workforce development efforts as residents and the youth population benefit from workforce development programs that promote profitable sustainable outcomes.

These programs develop public-private partnerships to become academic enterprises that both create economic opportunities and train people with appropriate skills. These new jobs must be based in competitive industries that can produce commercial products for the global marketplace. Developing a climate so all communities can participate economically is essential to the long term sustainability of both the Gulf Coast and the American economy. As America's population becomes even more diverse, in the 21st Century, embracing that diversity is the key to both regional and global competitiveness.

The MBDA/NOAA collaboration efforts may conduct the following activities:

- Applied research related to the Gulf Coast's ecosystem or economic diversification;
- Research commercialization activities;
- Establishment of academic industrial partnerships focused on Minority Business Enterprises;
- Development of policy for both private investment and workforce development;
- Establish an investment fund prioritized on minority business development focused on environmental restoration

3) Partial Sample of Existing GOM Training, Education, and Outreach Programs:

NERRs Coastal Training Program

Through the Coastal Training Program, National Estuarine Research Reserves address critical coastal resource management issues by providing the most up-to-date scientific information, access to technologies and skill-building opportunities to key professionals responsible for making decisions about coastal resources. Topical areas include coastal habitat restoration, water quality, stormwater management, land use and coastal development issues. Programs target land-use planners, elected officials, regulators, land developers, community groups, environmental non-profits, private consultants and business leaders.

Using a strategic approach, reserves conduct comprehensive market analysis to determine training niches and identify audiences. Targeted needs assessments are used to help identify the training needs of specific decison-maker audiences. Program development and marketing strategies are based on these careful audience assessments. In addition, reserves establish coordinating committees, including representatives from state coastal programs and Sea Grant College programs, to provide ongoing direction and to develop strategies for partnering with regional organizations on specific training initiatives.

Programs range from seminars, hands-on skill training, participatory workshops, lectures and technology demonstrations. Participants benefit from opportunities to share experiences and network in a multidisciplinary setting, often with a reserve-based field activity.

Habitat Restoration Technology Training Center

The Gulf of Mexico Habitat Restoration Technology Training Center (HRTTC) is currently being constructed in Galveston, Texas, paid in part by a U.S. Dept. of Commerce Economic Development Administration (EDA) grant to the Gulf of Mexico Foundation to build and establish. Transocean and the Offshore Technology Conference Executive Committee (OTCEC) have also contributed initial lead gifts of $1.75 million and $200,000, respectively. These financial commitments kick off a $7 million capital campaign which includes the purchase of 2 acres of commercial property and an adjacent 15-acre wetland parcel, which will be the home of the new Gulf of Mexico HRTTC.

The Gulf of Mexico Foundation promotes and facilitates conservation of the health and productivity of the Gulf of Mexico and its resources through education, public awareness, restoration projects, research, and leadership programs. The HRTTC will provide in-person and online habitat restoration training programs focused on a holistic, ecosystem-based approach. The HRTTC will function as a center for workforce development, technical assistance, education and outreach services serving the range of businesses, organizations, communities, and governance entities which use and depend upon the health and productivity of the Gulf of Mexico. HRTTC programs/curriculum are geared towards educators, students, program developers, business and industry professionals, and the community at large.

Sea Grant Extension

Sea Grant's mission is to enhance the practical use and conservation of coastal, marine and Great Lakes resources in order to create a sustainable economy and environment. Environmental stewardship, long-term economic development and responsible use of America's coastal, ocean and Great Lakes resources are at the heart of Sea Grant's mission. A network of 33 Sea Grant

programs in the coastal US States and territories, including the Gulf of Mexico, carries out this mission through research, extension and education activities. The Sea Grant network enables NOAA and the nation to tap the best science, technology and expertise to balance human and environmental needs in coastal communities. Sea Grant Extension agents play a vital role in taking the best science-based solutions produced by Sea Grant researchers and making them understandable and useful to coastal residents, businesses and communities.

NOAA Bay Watershed Education and Training (B-WET)

NOAA's B-WET program is an environmental education program that promotes locally relevant, experiential learning in the K-12 environment. The delivery of B-WET occurs primarily through competitive funding that promotes Meaningful Watershed Educational Experiences (MWEEs). The program is national in scope with 7 regional programs: California, Chesapeake Bay, Great Lakes, Gulf of Mexico, Hawaii, New England, and the Pacific Northwest.

The B-WET program aims to promote environmental literacy in society, supporting individuals to understand, protect and restore watersheds and related ocean, coastal, and Great Lakes ecosystems. NOAA recognizes that knowledge and commitment built from firsthand experience, especially in the context of one's community and culture, is essential for achieving environmental stewardship. Carefully selected experiences driven by rigorous academic learning standards, engendering discovery and wonder, and nurturing a sense of community will further connect students with their watershed, help reinforce an ethic of responsible citizenship, and promote academic achievement. B-WET maintains relevance by responding to regional education and environmental priorities through local implementation. Please refer to the regional funding opportunity announcements for specific priorities.

NERRs Estuaries 101 Curriculum

The goal of Estuaries 101 is for students and teachers throughout the nation to become more ocean literate through increasing their knowledge of coastal and estuarine science and how estuaries affect their daily lives. To achieve this increased literacy, teachers will use this estuaries.noaa.gov site to access both the middle and high-school curriculum activities. Use of the Estuaries 101 website will be encouraged and supported through professional development trainings hosted at 28 Reserves and at professional meetings across the nation. The Estuaries 101 Curriculum uses hands-on learning, experiments, field work and data explorations focusing on estuaries.

Designed to be used by teachers in grades 6-12, the Estuaries 101 Curriculum deepens students understanding about estuaries and how estuaries affect their daily lives. Estuaries offer an exciting context for learning about math, geography, chemistry, marine science, among other fields. With the many threats that our nation’s oceans face, Estuaries 101 prepares today’s children to be tomorrow’s ocean stewards. Estuaries are an ideal topic to excite students about studying the ocean because of the strong personal connections people have with estuaries—from treasured recreation experiences, scenic views during transits, to making a living on the water. Advancing estuarine, coastal, and ocean literacy is a priority of NOAA’s National Estuarine Research Reserve System (NERRS). It is our expectation that, through the Estuaries 101 Curriculum, students and teachers will gain an understanding of the great importance of estuaries and the intricate connections it has with the ocean and climate systems.

4) Documentation of Previous NOAA Corps Experience

NOAA Veterans Corps Pilot Project

Link to NOAA Veterans Corps Video:
http://www.habitat.noaa.gov/highlights/vetsrestorationvideo.html

California Conservation Corps. Electric fishing in the Middle Fork Eel River for spawner surveys.

NOAA Veterans Corps Fact Sheet

NOAA VETERANS CORP *Pilot Project*

NOAA FISHERIES

Habitat Conservation

NOAA is training returning military veterans to monitor and restore habitat crucial for rebuilding threatened fish populations in Northern California.

FY13 Pilot Project Highlights

- 8 veterans hired
- 152 spawner surveys completed
- 228 miles of stream surveyed
- 3,464 hours of surveying completed
- 2 restoration projects completed (installing large wood and planting native trees)

This is good news for both veterans and fisheries managers.

Many returning veterans have had a hard time transitioning to the civilian workforce because the skills they acquire in the military don't clearly map to traditional civilian work roles. However, the same qualities of leadership and teamwork that are prized in the military translate well to the work of caring for habitat.

Through this pilot project, veterans receive paid technical training and marketable work experience that are expected to serve as a bridge to a new career in the environmental restoration field.

Participating veterans learn how to:

- determine spawner abundance
- collect information on juvenile fish distribution, diversity, and productivity
- identify habitat type
- conduct topographical surveys
- restore habitat

In addition, they receive additional training necessary for fieldwork such as:

- Electrofishing
- Flood training
- Chainsaw training
- HAZWOPER
- First Aid/CPR
- Injury, Illness and Prevention training

The success of this project demonstrates the potential for developing and expanding this effort at additional locations nationwide.

For more information about this project, contact NOAA Office of Habitat Deputy Director, Brian Pawlak (Brian.T.Pawlak@noaa.gov).

NOAA developed the Veterans Corps Pilot Project in partnership with the California Conservation Corps, California Department of Fish and Wildlife, and The United States Forest Service.

U.S.DepartmentofCommerce | NationalOceanicandAtmosphericAdministration | NationalMarineFisheriesService

Commencement Bay (Seattle) Long-term Stewardship

EarthCorps. Goose exclusion fence installation (Commencement Bay).

- Technique created for urban shoreline restoration sites to exclude geese that eat installed vegetation. Fencing gets removed after the plants are established.

Hawaii Youth Conservation Corps

Hawaii Youth Conservation Corps. Marine debris removal/derelict fishing nets.

- Removed derelict fishing net with no machinery (other than the truck), and worked as a team to clean up the 1,000 pound net

Hawaii Youth Conservation Corps. Invasive species removal.

- Removal of invasive mangrove species.

5) Employment Statistics per Gulf State for Youth and Veterans

Table 1: Youth Unemployment Rates By State: 2012 Annual Data

Gulf State	Age 16-24 Rate
Alabama	16.3
Florida	16.4
Louisiana	16.7
Mississippi	23.0
Texas	13.5

Source: Governing the States and Localities. Youth Unemployment Rate, Figures by State.
http://www.governing.com/gov-data/economy-finance/youth-employment-unemployment-rate-data-by-state.html

Table 2: Veterans Unemployment Rates by State: 2013

Gulf State	Post-9/11 Veteran - Unemployment Rate
Alabama	5.7%
Florida	6.0%
Louisiana	10.0%
Mississippi	14.6%
Texas	8.7%

Source: Joint Economic Committee, United States Congress. 2013. State by State Snapshots.
http://www.jec.senate.gov/public/index.cfm?p=statebystatereport

6) Detailed Maps of Potential Locations for Restoration Projects Overlayed with Employment Information (data from the U.S. Department of Commerce Economics & Statistics Administration)

Figure A: Unemployment rates near Gulf of Mexico NERRs

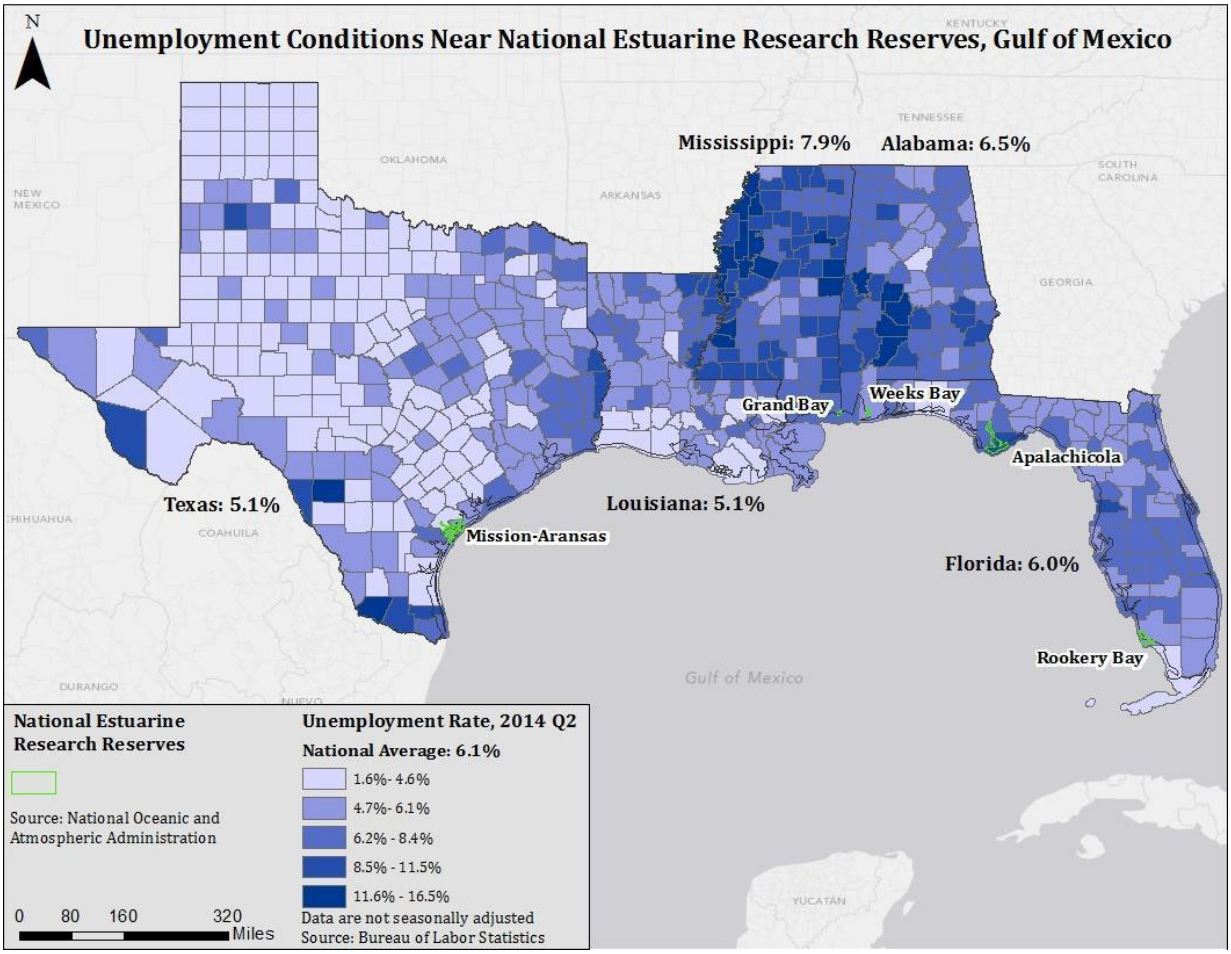
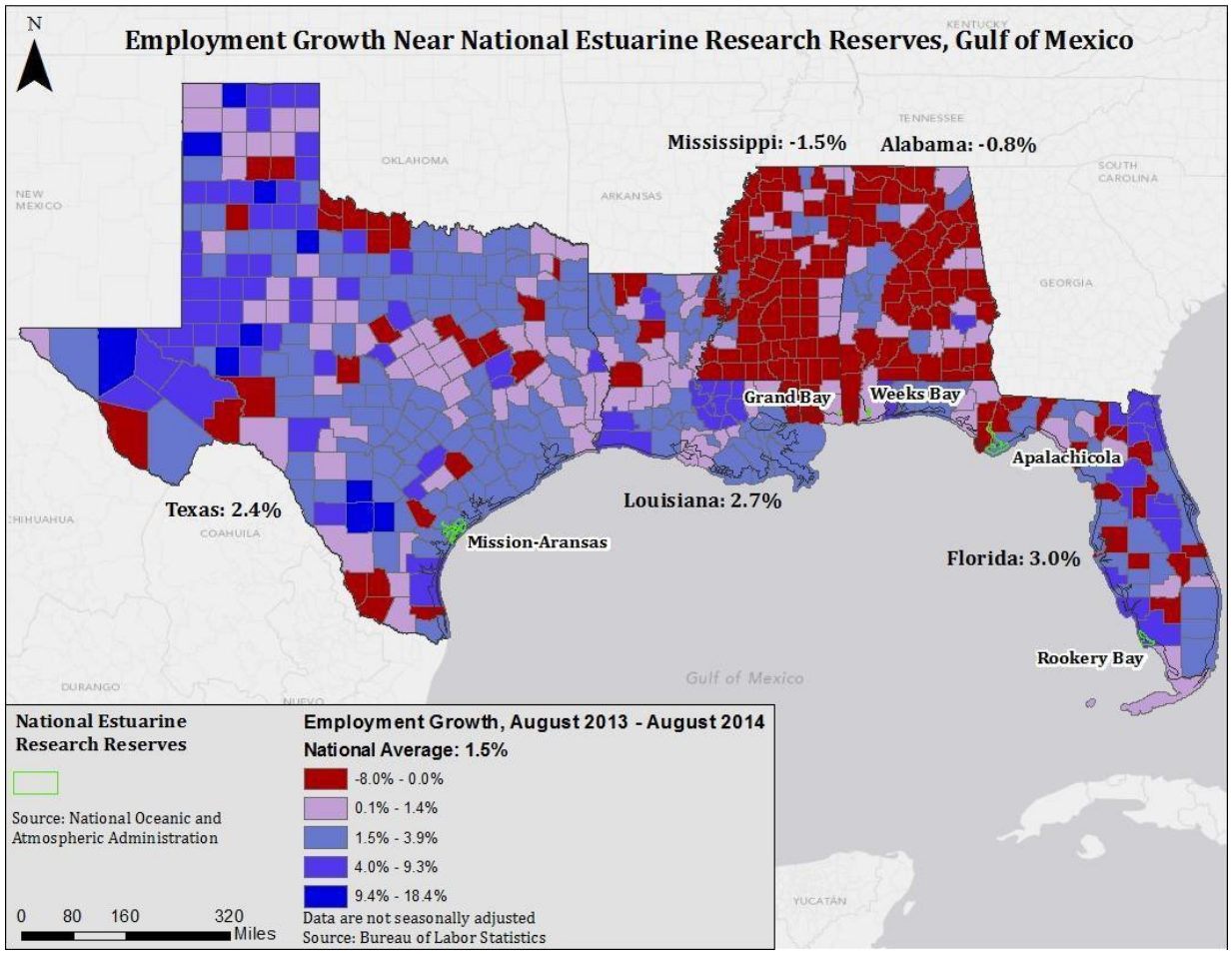


Figure B: Employment growth rates near Gulf of Mexico NERRs



Apalachicola National Estuarine Research Reserve, Florida Figures 3-4

Figure C: Employment growth rates near Apalachicola NERR

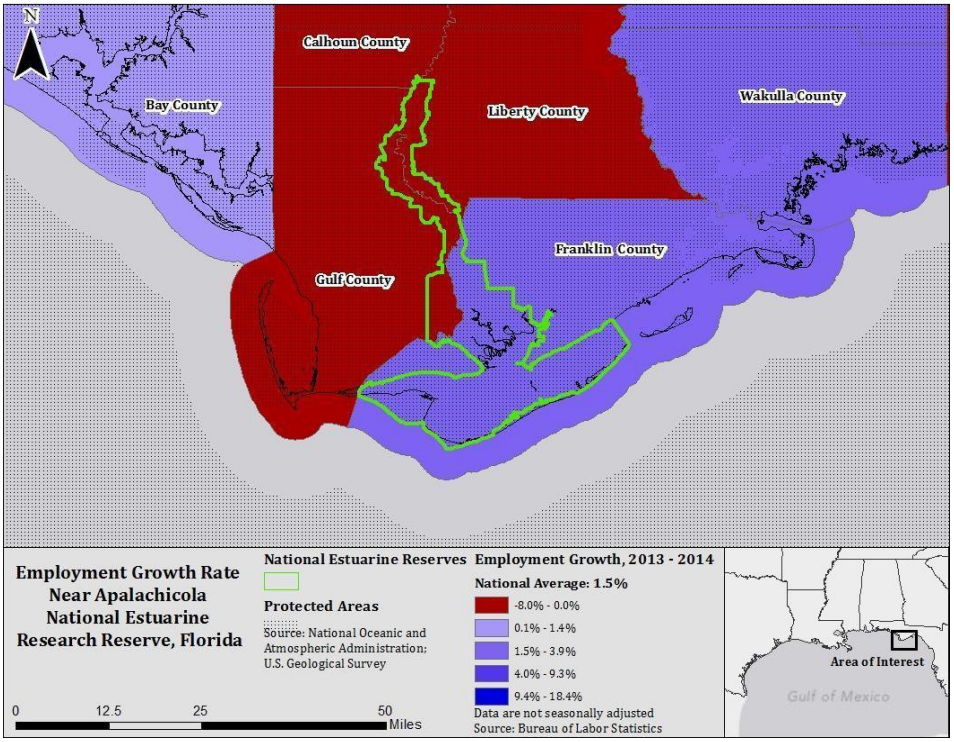
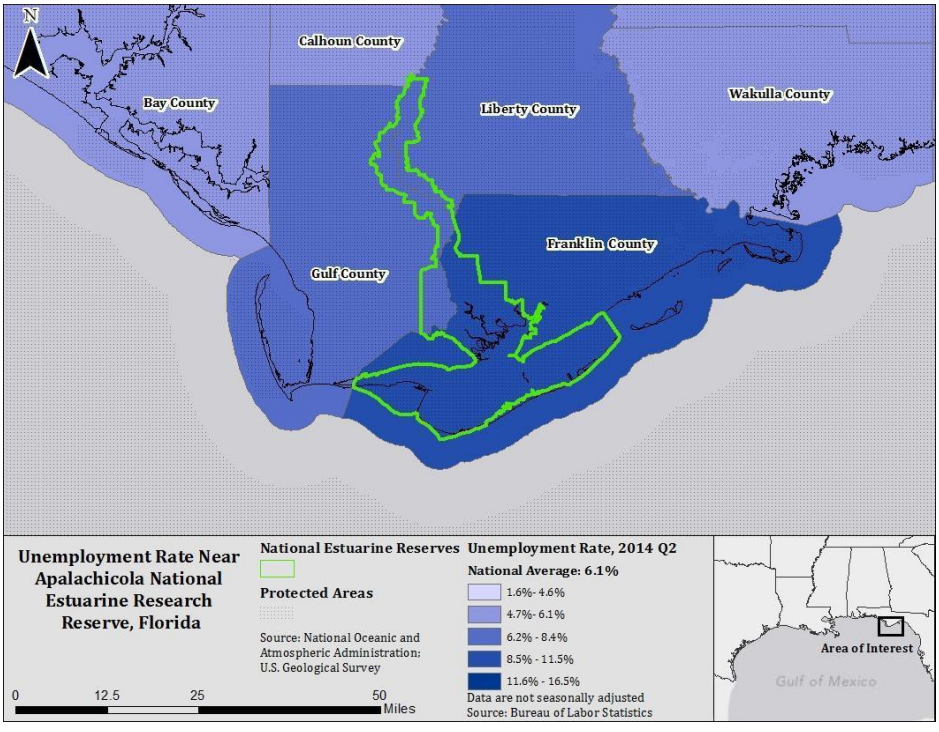


Figure D: Unemployment rates near Apalachicola NERR



Grand Bay National Estuarine Research Reserve, Mississippi Figures 5-6

Figure E: Employment growth rates near Grand Bay NERR

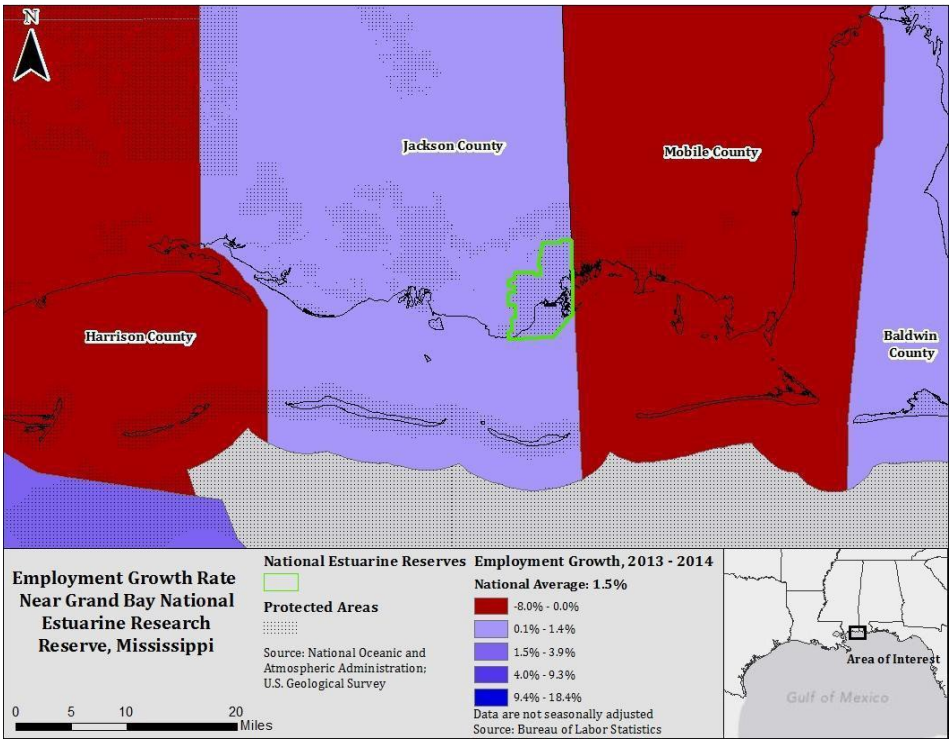
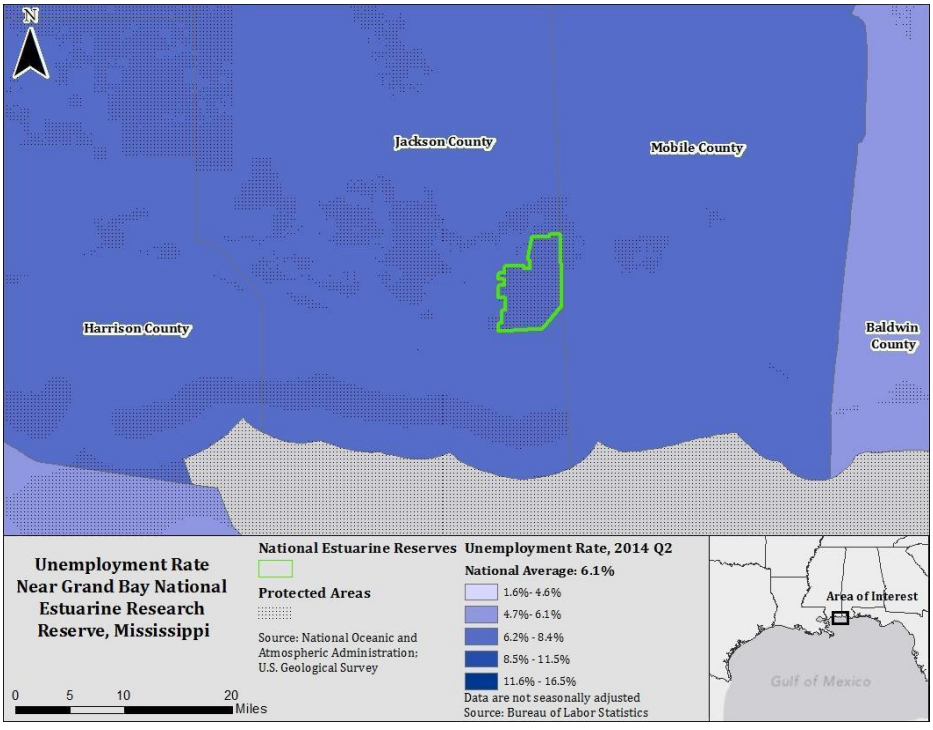


Figure F: Unemployment rates near Grand Bay NERR



Mission Aransas National Estuarine Research Reserve, Texas Figures 7-8

Figure G: Employment growth rates near Mission-Aransas NERR

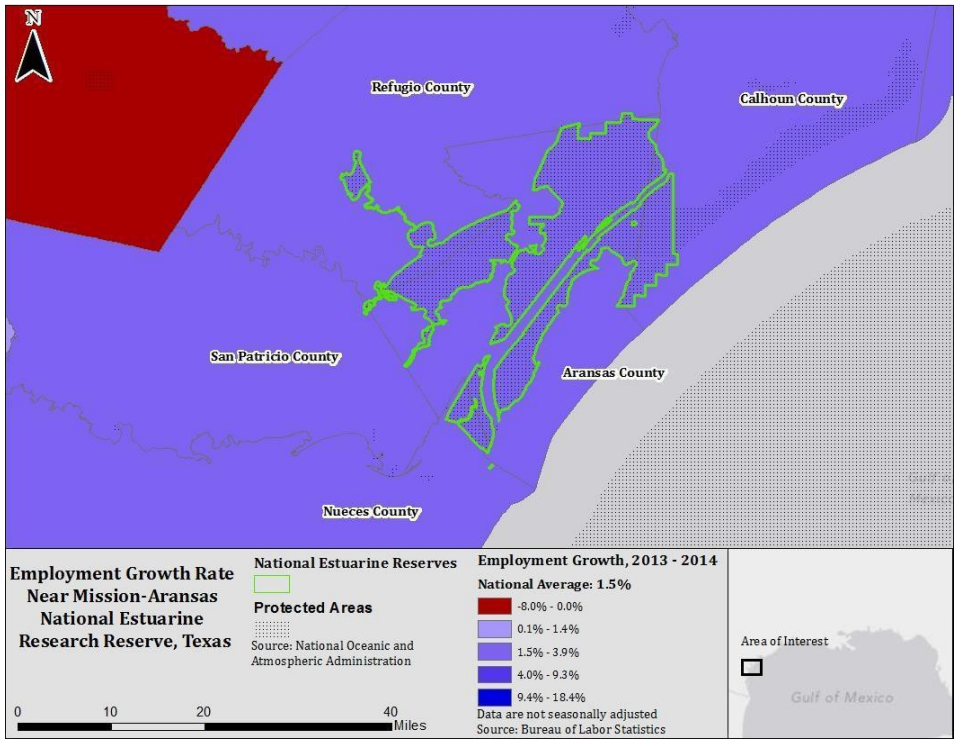
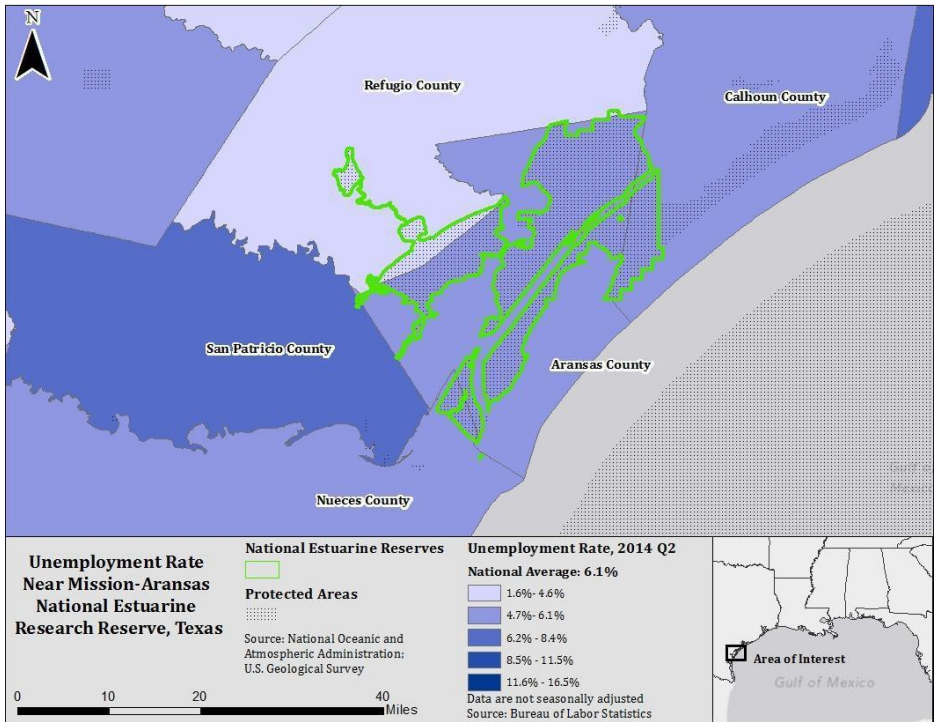


Figure H: Unemployment rates near Mission-Aransas NERR



Rookery Bay National Estuarine Research Reserve, Florida Figures 9-10

Figure I: Employment growth rates near Rookery Bay NERR

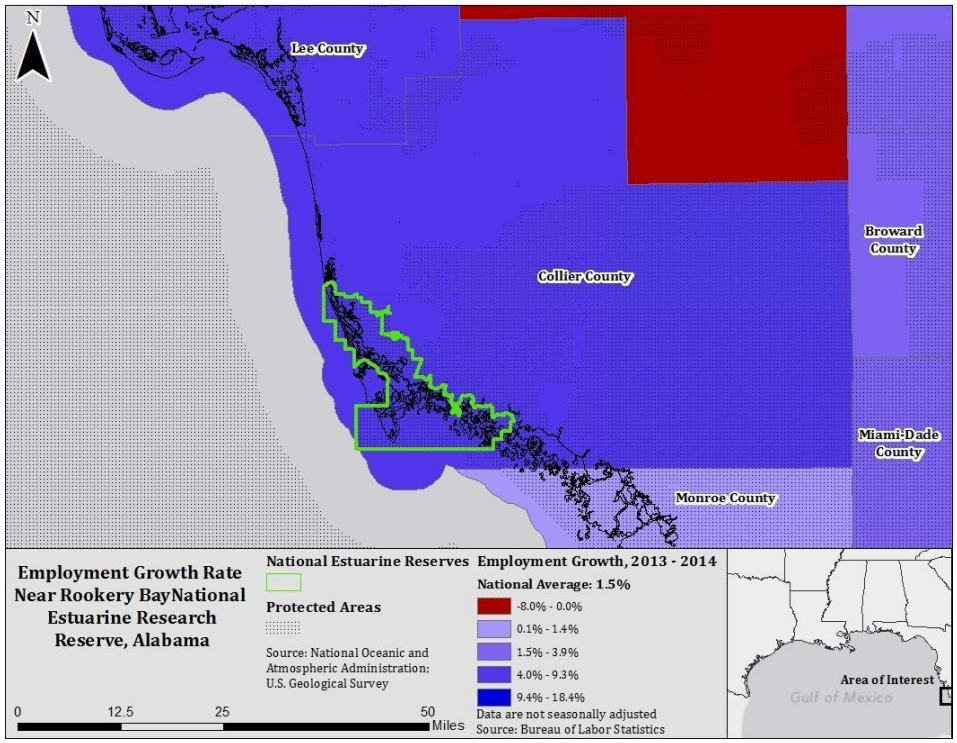
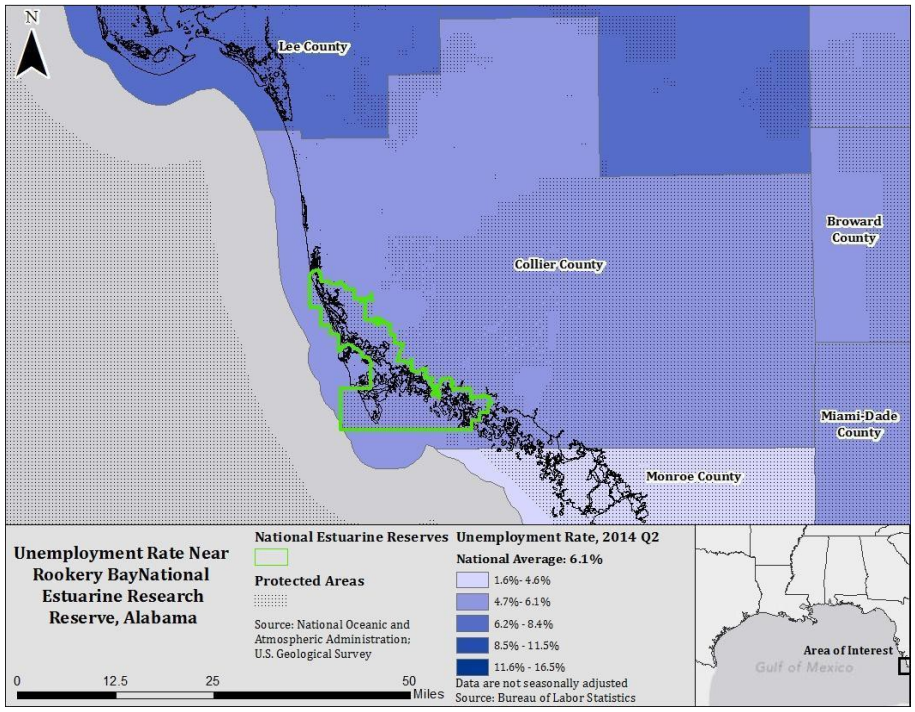


Figure J: Unemployment rates near Rookery Bay NERR



Weeks Bay National Estuarine Research Reserve, Alabama Figures 11-12

Figure K: Employment growth rates near Weeks Bay NERR

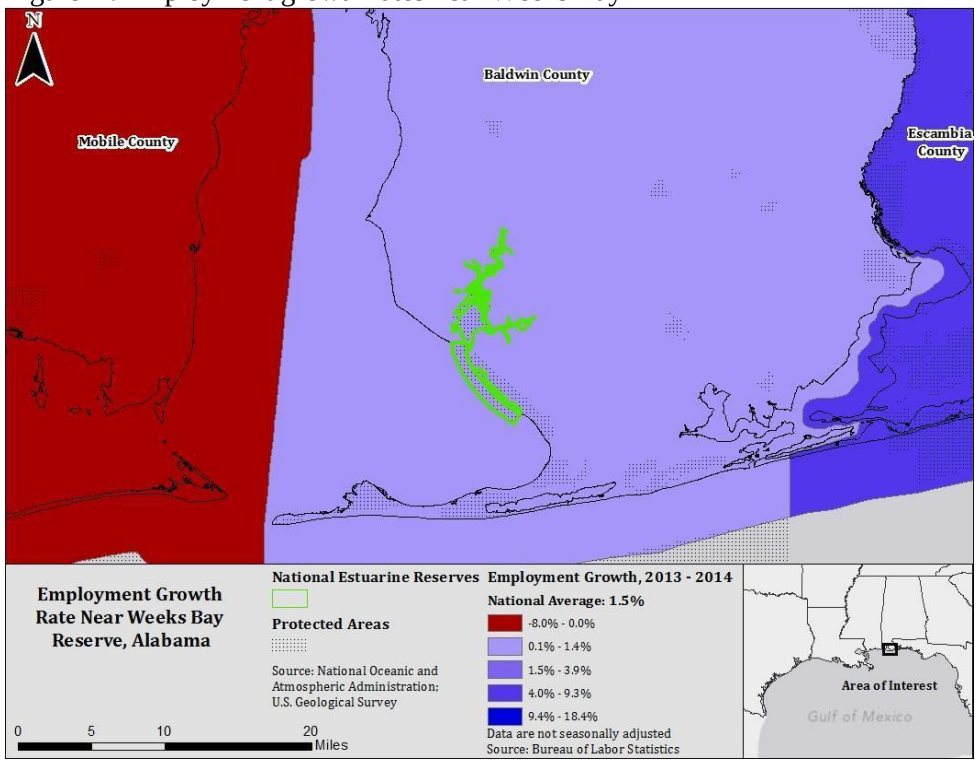
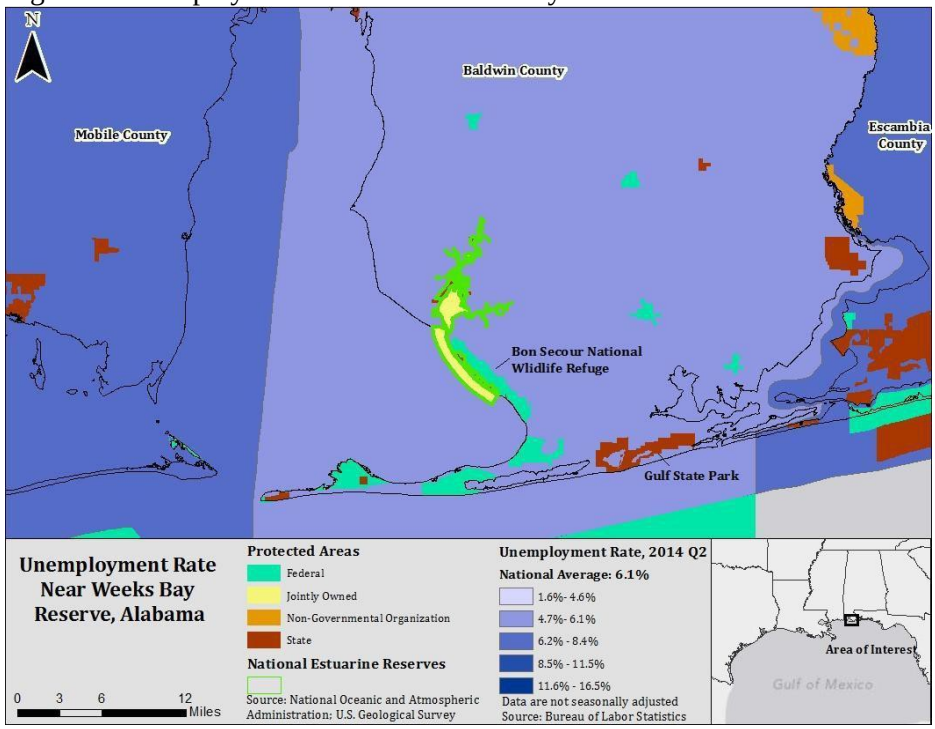


Figure L: Unemployment rates near Weeks Bay NERR



ELIGIBILITY REVIEW

Bucket 2 – Council Selected Restoration Component

PROPOSAL TITLE

Gulf of Mexico Habitat Restoration via Conservation Corps Partnerships

PROPOSAL NUMBER

DOC-3

LOCATION

Gulf Coastal Counties/Parishes

SPONSOR(S)

Department of Commerce

TYPE OF FUNDING REQUESTED (Planning, Technical Assistance, Implementation)

Implementation

REVIEWED BY:

Bethany Carl Kraft/ Ben Scaggs

DATE:

11-21-14

1. Does the project aim to restore and/or protect natural resources, ecosystems, fisheries, marine and wildlife habitat, beaches, coastal wetlands and economy of the Gulf Coast Region?

◉ YES ○ NO

Notes:

This proposal aims to restore over 2,000 acres of coastal habitat including: oyster reef, marsh, seagrass, shorelines, long leaf pine forest/savanna, and coastal prairie.

2. Is the proposal a project?

○ YES ◉ NO

If yes, is the proposed activity a discrete project or group of projects where the full scope of the restoration or protection activity has been defined?

○ YES ○ NO

Notes:

3. Is the proposal a program?

(●) YES ( ) NO

If yes, does the proposed activity establish a program where the program manager will solicit, evaluate, select, and carry out discrete projects that best meet the program's restoration objectives and evaluation criteria?

(●) YES ( ) NO

Notes:

4. Is the project within the Gulf Coast Region of the respective Gulf States?

(●) YES ( ) NO

If no, do project benefits accrue in the Gulf Coast Region?

( ) YES ( ) NO

Notes:

Eligibility Determination

ELIGIBLE

Additional Information

Proposal Submission Requirements

1. Is the project submission overall layout complete? ***Check if included and formatted correctly.***

A. Summary sheet	☑	F. Environmental compliance checklist	☑
B. Executive summary	☑	G. Data/Information sharing plan	☑
C. Proposal narrative	☑	H. Reference list	☑
D. Location information	☑	I. Other	☑
E. High level budget narrative	☑		

If any items are NOT included - please list and provide details

2. Are all proposal components presented within the specified page limits (if applicable)?

◉ YES ○ NO

Notes: