

## RESTORE Council Activity Description

### **General Information**

*Sponsor:*

U.S. Department of Commerce/National Oceanic and Atmospheric Administration

*Title:*

Gulf of Mexico Coast Conservation Corps (GulfCorps) Program

*Project Abstract:*

The U.S. Department of Commerce, through the National Oceanic and Atmospheric Administration (NOAA), is requesting \$11,971,250 in Council-Selected Restoration Component funding to implement the Gulf of Mexico Coast Conservation Corps (GulfCorps) Program for an additional 4 years. This would include implementation funds as FPL Category 1. Initially funded under the Council's 2015 Initial FPL, the GulfCorps program supports the primary RESTORE Comprehensive Plan goal of restoring and conserving habitat. GulfCorps organizations in each Gulf state will recruit, train, employ and help to inspire hundreds of young adults to produce habitat restoration benefits and become the Gulf of Mexico's future restoration workforce. GulfCorps will continue to collaborate with State, Federal and local agencies, and non-profit organizations to manage natural resources and implement restoration, conservation and resilience projects. Based on project input from RESTORE Council Members and local experts, the GulfCorps will implement habitat restoration, conservation and monitoring activities in a range of Gulf of Mexico habitats including marshes, prairies, forests, oyster reefs and shorelines. GulfCorps crews will also facilitate public access to Gulf habitats by building and maintaining boardwalks and trails.

GulfCorps program activities will contribute to the restoration of 6,400 acres of coastal habitat, providing employment opportunities for 240 young people across the Gulf region. The program will also provide 500,000 hours of labor for priority conservation projects in all five Gulf States. The GulfCorps Program duration is 4 years.

*FPL Category:* Cat1: Implementation Only

*Activity Type:* Program

*Program:* Gulf of Mexico Coast Conservation Corps (GulfCorps) Program

*Co-sponsoring Agency(ies):* N/A

*Is this a construction project?:*

No

*RESTORE Act Priority Criteria:*

- (I) Projects that are projected to make the greatest contribution to restoring and protecting the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region, without regard to geographic location within the Gulf Coast region.
- (II) Large-scale projects and programs that are projected to substantially contribute to restoring and protecting the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast ecosystem.
- (III) Projects contained in existing Gulf Coast State comprehensive plans for the restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal

wetlands of the Gulf Coast region.

(IV) Projects that restore long-term resiliency of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands most impacted by the Deepwater Horizon oil spill.

*Priority Criteria Justification:*

Criteria I) Over a 4-year duration, NOAA proposes to continue the innovative GulfCorps program implementing high priority ecosystem and habitat restoration projects in all 5 states, while also training hundreds of young adults to become the Gulf's next generation restoration workforce and helping youth develop fundamental job skills. Through leveraging, partnerships, supportive networks and planning the program aims to become self-sustained. Criteria II) The GulfCorps program is designed to restore large scale coastal habitat by implementing priority conservation, restoration and resilience projects and activities benefiting 6,400 acres of the Gulf Coast, while providing career training to and promoting stewardship in local people in all five Gulf states. GulfCorps projects across the Gulf are conducted in a watershed-approach to conservation, restoration and resilience, and built upon each other along a natural line of ecological progression. Criteria III) GulfCorps provides the foundational labor for many projects found within state comprehensive plans. These project require the very same skills and expertise that GulfCorps members are developing and mastering, bringing local skilled labor into the restoration job market when and where it is needed most. Criteria IV) GulfCorps contributes to present-day and longer-term Gulf resilience by training a workforce to implement conservation, restoration, protection, and response activities. The education and professional development components build professionalism, trust, and strong relationships with project partners and agencies served by GulfCorps. These conditions promote a stewardship ethic that will support the resilience of the Gulf ecosystem for generations to follow and protect natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region through participants' personal connections to nature.

*Project Duration (in years): 4*

## **Goals**

### *Primary Comprehensive Plan Goal:*

Restore and Conserve Habitat

### *Primary Comprehensive Plan Objective:*

Restore , Enhance, and Protect Habitats

### *Secondary Comprehensive Plan Objectives:*

Promote Natural Resource Stewardship and Environmental Education

### *Secondary Comprehensive Plan Goals:*

Enhance Community Resilience

### *PF Restoration Technique(s):*

Create, restore, and enhance coastal wetlands, islands, shorelines and headlands: Protect natural shorelines

Promote natural resource stewardship and environmental education: Promote natural resource stewardship and environmental education

Protect and conserve coastal, estuarine, and riparian habitats: Habitat management and stewardship

Restore oyster habitat: Living shorelines

## **Location**

### *Location:*

This program will occur within the major coastal estuaries and habitats in each Gulf state. Crews will be based in the larger Gulf cities and work laterally across the Gulf within their respective state or area.

### *HUC8 Watershed(s):*

Please see the RESTORE Council Gulfwide location information available at:

[https://restorethegulf.gov/sites/default/files/Gulfwide%20Watersheds\\_Counties\\_CongessionalDistricts.pdf](https://restorethegulf.gov/sites/default/files/Gulfwide%20Watersheds_Counties_CongessionalDistricts.pdf)

### *State(s):*

Texas

Alabama

Mississippi

Louisiana

Florida

### *County/Parish(es):*

Please see the RESTORE Council Gulfwide location information available at:

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### *Congressional District(s):*

Please see the RESTORE Council Gulfwide location information available at:

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## Narratives

### *Introduction and Overview:*

General Description: The suite of coastal habitats that make up the northern Gulf of Mexico, including coastal wetlands, submerged aquatic vegetation, and critical upland habitats, support valuable ecological, economic, and social services. Following the Deepwater Horizon Spill, agencies, task forces and trustee resource groups, including the RESTORE Council, have identified key restoration and recovery strategies for the Gulf of Mexico. The work implemented by the GulfCorps will continue to support those recovery strategies. The GulfCorps Program facilitates the restoration, conservation and stewardship of several of the highest priority habitats and watersheds across all 5 Gulf states. The Program is driven by the science, experience and planning of the agency and non-profit organizations that participate. GulfCorps provides a labor pool to help implement project partners' most important conservation, restoration and resilience efforts.

Comprehensive Plan goals and objectives: The initial GulfCorps program's goal aligned squarely with the Comprehensive Plan Goal 1, to restore and conserve habitat, and its objectives were met through the restoration, conservation and protection of habitat in all 5 Gulf states. The proposed continuation of GulfCorps shares the same priority goal and objective while adding the secondary goal of enhancing community resilience (Goal 4), by promoting natural resource stewardship, environmental education, and development of job skills.

Primary Goal - Restore and conserve habitat: GulfCorps projects across the Gulf are conducted in a watershed-approach to conservation, restoration and resilience. To do this, the Program works with resource experts in each state to identify and prioritize the most critical and high-value restoration sites, and the conservation and restoration practices that need to be applied to each site, over time. By taking a multi-habitat approach, the GulfCorps Program can address the primary goal, to restore and conserve habitat across the Gulf of Mexico.

Primary Objective - Restore, conserve and protect habitat: GulfCorps will restore, conserve and protect habitat by focusing the majority of project time managing vegetation, including invasive species treatment, reducing overgrowth, preparing for and participating in prescribed burns, and, propagating, growing and transplanting native species in marshes, mangroves, dunes and forests. Crews will also spend time installing living shorelines and other shoreline restoration-type projects. This work is often complemented by replacing, repairing or creating trails/boardwalks that are open to the public.

Secondary Goal - Enhance community resilience: The GulfCorps program will enhance community resilience in 3 ways: 1) by implementing restoration and conservation projects that make the Gulf of Mexico ecosystem and communities more resilient in the face of erosive wave conditions, wildfire, drought, flooding, hurricane response and recovery; 2) by exposing, employing and shepherding young people from communities that are often disproportionately impacted by environmental stressors into conservation and restoration related jobs and careers; and 3) by providing young people with quality subject matter and developmental training, through real-world work experience conducting restoration and conservation projects, as well as projects and response activities that enhance the resilience of nature and people in the Gulf.

Secondary Objective - Promote natural resource stewardship and environmental education: Promotion of natural resource stewardship and environmental education is a fundamental tenant of the entire program, occurring throughout the entire program from the recruitment of crew members to their post-program placement. The technical trainings are led by natural resource experts and professionals in the field from the partners and agencies that host GulfCorps projects. The Program will continue to incorporate training that increases the job preparedness of participants by creating and delivering expert soft skills and professional development learning that directly address the needs of each

participant.

Environmental Benefits: Conservation, restoration and resilience projects to be implemented in all 5 Gulf states will include, but not be limited to, invasive species management through mechanical and chemical treatments; native vegetation planting across all coastal-zone habitat types; other vegetation management, such as brush and understory removal, forest thinning and prescribed fire; threatened/endangered species and habitat restoration and stewardship activities, such as pond restoration, red-cockaded woodpecker nest protection, sea turtle monitoring and creation/protection of nesting shorebird habitat; coastal habitat restoration and resilience through shoreline protection projects that build sand dunes, saltmarshes, intertidal oyster reefs and submerged aquatic vegetation; restoration of rare/threatened habitat types, such as pitcher plant bogs in Florida, Alabama and Mississippi, and coastal prairies in Louisiana and Texas. GulfCorps crews may also repair/maintain/create public recreational amenities, from trails, boardwalks and bird observatories to kayak launches to blueway/paddle trails to debris removal often needed at these areas.

Environmental Stressors: The Gulf is subject to a wide variety of natural stressors (e.g., drought, fluctuating temperatures, hurricanes, land subsidence, sea-level rise, and saltwater intrusion) and human stressors (e.g., river channelization causing alteration of important wetland flooding and sedimentation regimes; residential development; industrial activities including oil and gas extraction contributing to land loss; agricultural and wastewater discharges; trawling impacts to the sea floor; and invasive species). The GulfCorps' on-the-ground conservation activities will work to offset some of these human and environmental stressors.

Total Cost: \$11,971,250. Implementation 86%; Planning and accounting 10%, and Monitoring and Data Management 4%.

Timeline: The proposed program would operate for 4 years beginning in the Fall of 2021 and ending in the Summer/Fall of 2025. Each year crews will work from fall through the beginning or middle of the following summer. Work can begin immediately upon the authorization to proceed by the RESTORE Council. The crews will begin at the end of each summer and work through the beginning or middle of the following summer each year for 4 years, ending in the summer of 2025. GulfCorps will build upon existing NEPA-authorized project work, relationships and continued planning with project partners.

Partners: Program Partners: The GulfCorps Program's core team includes NOAA Fisheries who will act as the fiscal sponsor, environmental compliance lead, project advisor, and liaison to the RESTORE Council and Steering Committee. NOAA will partner with The Nature Conservancy, the implementation lead of the Program, who will manage the conservation and project planning, monitoring, subawards/contracts and overall operations components of GulfCrops. The Student Conservation Association will lead the development and implementation of annual orientations and will manage logistics for the region-wide, technical training of the conservation corps. The Corps Network will implement a professional development program intended to help the conservation corps prepare GulfCorps members and leaders for careers in conservation and restoration while actively assisting the placement of participants with opportunities that lead to those positions. The Forest Stewards Guild will be the technical training provider for the federally regulated certifications required for chainsaw operation and prescribed fire qualifications. Project Partners: The Program currently works with, and proposes to continue working with, over 60 distinct project partners from varying departments/offices within each agency and non-profits across all 5 Gulf states. Conservation Corps Partners: The proposed program model builds on the years of capacity building, planning, partnerships and collaboration between the Program Partners, Project Partners and Conservation Corps Partners (Corps) in all five Gulf states. The 6 Corps organizations that operate the up to 11 GulfCorps crews have helped to shape the Program's goals

through the diversity of audiences that they serve.

FPL 3 Planning Framework: The goals and methods of the GulfCorps program align with the following framework approaches: create, restore, and enhance coastal wetlands, islands, shorelines, and headlands; protect and conserve coastal, estuarine and riparian habitats; Reduce excess nutrients and other pollutants to watersheds; and restore oyster habitat. The GulfCorps program also aligns with the techniques: protect natural shorelines; habitat management and stewardship, agriculture and forest management and living shorelines.

*Proposed Methods :*

The Program anticipates treating over 800 acres impacted by invasive species; enhancing 3,200 acres of wetlands, shorelines, and/or marsh; enhancing over 2,400 acres of coastal uplands and forest; and monitoring up to 800 acres of restored habitat within priority Gulf coast watersheds. To ensure the effectiveness of these restoration activities the GulfCorps program is using the best available science, an effective adaptive management framework, and a robust monitoring framework. GulfCorps has demonstrated that all of this is possible through employing local young people from the communities where the work is located. GulfCorps projects have been guided by the State-appointed RESTORE Act Representatives in Texas, Louisiana, Mississippi, Alabama and Florida. Program staff communicates with these representatives at a minimum of semi-annually to provide updates on the progress of the GulfCorps crews and to coordinate on project ideas and project partners for the crews in their state. Then, program staff coordinate further with staff of the various agencies and nonprofits on-the-ground to develop detailed scopes of work and schedules, and to determine training requirements and tool selection. These scopes of work are used to contract with the crews from each state and are simultaneously submitted for full NEPA review and authorization.

Approaches, Techniques and Methods: The proposed Gulf-wide Program will focus on four priority approaches: Create, restore, and enhance coastal wetlands, islands, shorelines, and headlands; Protect and conserve coastal, estuarine, and riparian habitats; Reduce excess nutrients and other pollutants to watersheds, and Restore oyster habitat. The techniques and specific methods for the projects will be guided by the project partners and will generally fall into the following approaches/methods:

Approach: Create, restore, and enhance coastal wetlands, islands, shorelines, and headlands

Technique: Protect natural shorelines

Methods:

- Living shoreline restoration including the placement of intertidal oyster reef breakwaters made from oyster shell, rock, concrete or other modular technologies. [4,12,16,19,28,30,33,45,47]
- Planting of native marsh and estuarine plants adjacent to the living shorelines. [28,30]
- Seed collection, propagation and transplantation of native wetland and saltmarsh plants through learning-based, assisted growing opportunities. [13]
- Rebuilding sand dunes using plants, sand fencing and other methods depending on the partner and project. [1,11]

Approach: Protect and conserve coastal, estuarine and riparian habitats

Technique: Habitat Management and Stewardship

Methods:

- Mechanically and chemically treating invasive plant and animal species. [13,44,46]
- Reforestation through planting of native trees and plants; seed collection, propagation and transplantation of native forest plants. [13,27]
- Assisting with the reintroduction, population management and habitat restoration of native endangered forest animals such as the Dusky gopher frog and Diamondback terrapin. [13,32]
- Prescribed fire application and preparation including reducing vegetative fuel loads through

mechanical cutting of brush; installing and maintaining fire-breaks; and protecting the nesting, rearing or feeding areas inhabited by endangered and threatened species. [39]

- Retrieving, removing, cataloging and disposing of debris from litter and from recent storm events. [26,29]
- Protecting habitat for nesting shorebirds and sea turtles by educating the public and installing/maintaining signage. [24, 29]
- Removing brush and reducing canopy cover by cutting trees, removing invasive species and introducing prescribed fire into pitcher plant bogs and coastal prairies along the beaches and coastlines. [13, 29]
- Repairing, maintaining and constructing public access boardwalks, trails and other amenities that prevent renegade trails, crossings and drive-overs within sensitive coastal habitats. [29]
- Implementation and advancement of goals set forth in the habitat restoration management priorities of the Program's project partners.

Approach: Restore oyster habitat

Technique: Living Shorelines

Methods:

- Recycling and curing oyster shells from restaurants. [4,8]
- Living shoreline restoration including the placement of intertidal oyster reef breakwaters made from oyster shell, rock, concrete or other modular technologies. [4,31]
- Rebuilding and maintaining living shorelines damaged after storm events. [31]

#### Gulf-wide Approaches and Techniques:

Comprehensive Plan Objective: Promote natural resource stewardship and environmental education

Techniques: Providing technical and non-technical training, professional development, work experience, and paid positions in restoration, conservation, resilience, and response fields.

Methods:

- Recruitment of the crews will occur primarily locally and regionally, and will strive to engage people from low-income, low-opportunity populations. Many of the young people that begin as GulfCorps crew members experience vigorous, demanding work for the first time in their lives. They are given the tools they will need to succeed, including soft-skills and professional development training. They are introduced to an industry many never knew existed and past crew members have been inspired to work in conservation and restoration-related fields.

- At the start of each season a program-wide GulfCorps orientation brings together members, leaders, and staff from each conservation corps for a multi-day, in-person training. This orientation provides an important balance between classroom and experiential learning. The goals of the GulfCorps orientation are to provide participants with a greater understanding of the value of restoring coastal habitats, expectations of the program, and the tools and framework to successfully complete their GulfCorps assignments. During orientation, members learn how the Deepwater Horizon oil spill impacted the coastal ecosystem. They also gain valuable understanding of how to properly conduct conservation and restoration work; resolve conflicts and work well as a team; be an effective leader in the field; advance their career and improve job readiness skills; collect data in the field; and manage risk at work sites. Incorporating project partners, who will eventually be supervising the work of the GulfCorps crews, into the training has proven to be an effective way to build trust between the crew and the partners.

- The professional development program is designed to assess the goals and gaps in each person's personal portfolio and develop a plan to meet the goals and fill the gaps through a series of adaptively designed training modules, assessments, surveys, assignments and workshops. These activities range

from updating a resume or refining interview skills to receiving training on work ethic, healthy eating and hydration, or balancing a budget. For example, during the first 2 years of GulfCorps, eight members worked with their corps organization to complete their high-school diplomas as the program was accepted by Franklin County Schools in Florida as an alternative learning opportunity that gives classroom credit. These efforts are necessary to meet the professional development goals of the proposed program: At the end of each season, depending on the needs for the following season, the GulfCorps team will work to place at least 70% of the crew members and leaders in jobs, internships, temporary placements, apprenticeships, promotions or careers in conservation and restoration-related fields. All trainings will be automatically tracked by crewmember and will be used to match members with employment opportunities that are in line with their experience and goals. When a pre-match is made, the probability of a member being qualified and interested in a placement opportunity is greater, leading to a higher chance of employer selection. Additionally, to ensure placement success, GulfCorps graduates will be supported and tracked for one year after their term of service at 3, 6, 9, and 12 month intervals.

- Restoration Training: In order to achieve the highest potential efficiency and effectiveness in the work that GulfCorps implements, participants will receive the following basic training: Wilderness First Aid/CPR, Wildland Firefighter Type II (Crewmember) S130/190, Wildland Firefighter Chainsaw Training (S212), Paddle Sport or Boating Safety, OSHA safety and construction training, Plant Identification, Herbicide Application/Safety, and other subject matter trainings based on the projects the crews will implement.

#### *Environmental Benefits:*

##### Total Anticipated Environmental Benefits:

6,400 acres restored or enhanced by conducting the following actions:

- Invasive Species Management: GulfCorps will map, treat, and reduce the coverage and prevalence of invasive plant and animal species on over 800 acres [14,18].

- Marsh/Wetland/Shoreline Restoration and/or Enhancement: GulfCorps crews will enhance wetlands, shorelines, and marsh on over 3,200 acres through a variety of restoration and conservation projects, including: planting native wetland/marsh species, restoring hydrologic functions, repairing and protecting shorelines, removing debris and trash, improving public amenities, removing overgrown brush, and conducting prescribed fire in wetlands, bogs, prairies and marshes across the Gulf [20,23,36,40].

- Coastal Upland and Forest Restoration and Conservation: GulfCorps crews will enhance over 2,400 acres of coastal uplands and forests within priority Gulf coast watersheds through a wide array of conservation techniques including: prescribed fire and fire-preparation, vegetation canopy clearing, fuels and brush reduction, debris removal, public amenity maintenance, endangered species habitat enhancements, and collecting ecological data to inform the progression of conservation needs [15,21].

##### Total Anticipated Economic Benefit:

-The program will operate up to 11 crews across the Gulf (1-3 crews per state). Each crew will support teams of up to 8 young adults, with up to 88 total participants a year for 4 years. The length of work season will grow each year, beginning with approximately 7-9 months in year 1, and expanding to 8-11 months in years 2-3, and 10-12 months in year 4. Work season length will vary between states based on the funds allocated for each state.

-Over the 4 years, the GulfCorps projects to on-board 280 full-time corps-member positions, 240 of which are estimated to complete their term based on current GulfCorps attrition rates.

*Metrics:*

Metric Title: RES005 : Recreational improvements - # improvements to recreational infrastructure

Target: 20

Narrative: GulfCorps members' efforts will provide increased access, education, opportunity and improved public experience when members of the public use recreation amenities along the Gulf coast. Each year GulfCorps crews will complete at least 5 improvements to trails, boardwalks or other public use facilities across the Gulf for a total of 20 improvements

Metric Title: COI105 : Economic benefits - % costs contracted to existing local organizations

Target: 86

Narrative: This percentage is calculated by taking the full amount of the award and subtracting NOAA's administrative funds as well as the The Nature Conservancy's anticipated indirect costs.

Metric Title: COI103 : Economic benefits - # temporary jobs created

Target: 240

Narrative: GulfCorps crew members will complete the following milestones to be considered a temporary job: 1) Full attendance at Orientation or completion of contractor-delivered orientation from the provided handbook, 2) One project-specific training course, 3) One industry certification, 4) Completion of the Individual Development Plan (IDP), and 5) Minimum of 500 hours (approximately 12 weeks) of project-related work experience.

Metric Title: PRM007 : Monitoring - Acres being monitored

Target: 800

Narrative: GulfCorps members will gather and record information that allows land managers to evaluate the performance of restoration, tell the 'story' of the project, and provide metrics of success of restoration.

Metric Title: HR008 : Removal of invasives - Acres restored

Target: 800

Narrative: Invasive plant and animal species often decrease the suitability and productivity of habitat for native organisms by shading out native plants, reducing freshwater availability and otherwise consuming food for native species. GulfCorps members will contribute to the restoration of coastal habitat through the mechanical removal and/or chemical treatment of invasive plant species, and physical removal of invasive animal species such as Apple snails.

Metric Title: HR004 : Habitat restoration - Acres restored

Target: 2400

Narrative: GulfCorps members will contribute to the enhancement of coastal upland habitat through efforts to improve hydrology, increase conservation, increase native vegetation viability, and other restoration techniques

Metric Title: HR013 : Wetland restoration - Acres restored

Target: 3200

Narrative: GulfCorps members will contribute to the restoration of wetland habitat through restoration actions such as revegetation of emergent or submerged marsh vegetation, improvements to hydrology, creation or maintenance of living shorelines and creation or maintenance of reef structures in order to enhance wetland function. GulfCorps crews will

restore at least 200 acres of wetland through planting and/or wetland creation, and they will enhance over 3,000 acres of wetland through stewardship, restoration, conservation and resilience activities such as vegetation management and thinning, debris removal and habitat protection.

*Risk and Uncertainties:*

The GulfCorps program constantly monitors, identifies and mitigates risks before they become elevated issues. The GulfCorps' ability to identify and overcome risks and uncertainties encountered to date has shown the program's unique ability to adapt to changing conditions. No major risks are expected in this continuation of the program.

Some risks and uncertainties that the GulfCorps Program could encounter, and the associated mitigation measures, include:

Catastrophic events - Events such as hurricanes [25], flooding [34,37], or wildfire [17] could impact crew operations or the project partner's ability to work with the crew if they are called to assist with emergency response and relief efforts. Mitigation of this risk was demonstrated during years 1 and 2 of the current program, when the Florida GulfCorps organization received a grant to provide full Community Emergency Response Training (CERT) for both of the Florida GulfCorps crews and the Mississippi GulfCorps crew. This training was completed less than a month before Hurricane Michael [5] hit Mexico Beach, FL as a Category 5 storm. The Apalachicola-based GulfCorps crew sprang into action before the storm hit to evacuate hospital patients and indigent people to places of refuge further inland from the storm. Along with the CERT training, the technical training (first aid/CPR, chainsaw, safety, and prescribed fire) and the soft skills training (operating under duress, conflict resolution) was directly transferable to the skills needed to respond to a disaster. This training allowed crews to safely clear trees from roads, restore access to and repair the homes of the elderly and indigent, distribute supplies, feed and comfort other relief workers and help to coordinate the response efforts of other organizations.

After a disaster the affected project partners are often unable to continue GulfCorps-based work for some time. The proposed GulfCorps program will train members in disaster response, allowing them to be useful to the community and project partners in which they serve when disasters occur and until project-based work can resume.

Climate change - Long-term impacts of climate change could affect the GulfCorps program if sea level rise [6,10,38,49], changes in rainfall patterns or increases in hurricane intensity [22] damage or impact completed projects. In most cases, the restoration efforts of the GulfCorps Program will buffer the impacts of climate change as they protect and enhance natural systems. Predicting and mitigating the impacts of climate change on GulfCorps projects is a task being addressed by scientists and practitioners from within the land and resource management agencies and organizations that host the crews.

Weather extremes - Elements such as intense heat/cold, droughts, and sustained rainy seasons can negatively impact project work [35] and cause overages in time and reductions to productivity. Staff, crew leaders and project partners consider weather extremes a significant risk to the safety and to the work that crews undertake. Crews are prepared with "rainy-day" activities and are directed to avoid working in potentially dangerous situations.

Working with young adults - The GulfCorps Program works with young adults typically between the ages of 18-25. Challenges associated with working with this age group include behavioral issues, maintaining motivation, and potential work-related injuries. GulfCorps will continue to mitigate these risks by providing an in-depth orientation covering interpersonal and technical skills, expert soft-skills training, and personal/professional development opportunities.

### Pre-risk mitigation measures:

Developing trusted relationships - Program staff work closely with the project partners to develop and implement projects. This close-knit relationship allows the parties to establish rapport and trust facilitating effective communication between them. When challenges do occur, trust is in place to work through and overcome issues associated with a project.

Effectively training members and staff - Thorough training for crew members allows them to safely conduct field work and function as a team. All participants, staff and many partners participate in a comprehensive orientation that provides training how to properly conduct conservation and restoration work, resolve conflict, work well as a team, properly use equipment and tools to conduct field work, and manage relationships and risks in the field. Corps staff and crew leaders receive training on GulfCorps Program reporting and data monitoring.

Diversifying project partners - The GulfCorps Program consists of up to 11 crews from 6 Conservation Corps, over 140 project sites, and more than 60 agency or nonprofit project partners. Although challenges may arise due to different ways that these entities function, the variety of partners in the Program is one of its greatest strengths. Partners are able to share successes and lessons learned which allows for a unique level of adaptability. The diversity in work also helps to reduce the mundane and keep crew morale high while also providing a broad array of work experience to each member.

### *Monitoring and Adaptive Management:*

The GulfCorps program staff developed the GulfCorps Monitoring and Evaluation Handbook [9] in September 2019, it is built upon the National Academies of Sciences 2017 report "Effective Monitoring to Evaluate Ecological Restoration in the Gulf of Mexico" [42] and a number of other resources [2,3,7,26,41,43,48]. The Handbook provides a step-by-step monitoring protocol for choosing the most appropriate monitoring methods and walks the user through the process of accurately and consistently collecting data to track the progress and measures the effectiveness of the conservation or restoration work performed. The GulfCorps crews will focus on two types of ecological monitoring during the length of the award.

Implementation Monitoring - The GulfCorps project team created Project Implementation Tracking Sheets to record this type of monitoring data.

Performance Monitoring - Performance monitoring is used to determine whether the management activities are having the desired habitat response. These basic indicators of restoration performance will provide critical understanding of the restoration activity over the short term and will also help establish a foundation of basic monitoring data for individual site locations that can be continued, and/or expanded upon by our project partners in the future. The performance criteria

GulfCorps crews use when working on certain project types include:

Invasive Species (flora) Removal - Performance Criteria: Density and/or percent cover of target invasive species per m<sup>2</sup>. Density and/or percent cover of target native species per m<sup>2</sup> .

Flatwoods and Bog Restoration - Performance Criteria: Percent canopy cover of each sampling area. Percent cover of each ground-cover category per m<sup>2</sup>. Leaf litter depth per m<sup>2</sup>. Total basal area (calculated by project sponsor or others) per acre.

Invasive Species (fauna = Apple Snails) Removal - Performance Criteria: Density of snails and egg masses

per m2. Density and/or percent cover of target species per m2.

Shoreline Restoration, Marsh Grass Planting - Performance Criteria: Percent cover of marsh grasses per m2. Density of target native species per m2 .

Shoreline Restoration, Living Shorelines for Erosion Reduction and Shoreline Stabilization - Performance Criteria: Shoreline position change (positive or neutral depending on project). Percent cover of vegetation per m2.

#### *Data Management:*

The Program collects implementation, performance and programmatic data across a wide geographic area and many project/activity types. The diversified nature of the data currently precludes using any one software to meet the data management needs. Program staff manage various types of documents on several systems to track all data generated by the grant, program and crews. Data is analyzed/stored in Microsoft or Google products in restricted folders on protected servers or in restricted Google drives. Program staff will continue to use current methods for data management while continuing to seek a solution to ease the amount of time/effort spent by staff tracking data in multiple systems. Data stored on the Google drive will be preserved for future use.

Implementation data will be managed via Project Implementation Tracking Sheets developed from the GulfCorps Monitoring Guidebook while project-specific performance/programmatic data will be managed via electronic documents.

Program staff will submit semi-annual reports to NOAA that will lead to a capstone final report. This data will also be uploaded to NOAA's publicly available DIVER database (<https://www.diver.orr.noaa.gov/>) and the Program's public website ([www.nature.org/gulfcorps](http://www.nature.org/gulfcorps)) which houses factsheets, project sheets and periodic updates on the Program.

#### *Collaboration:*

The GulfCorps was initiated as a collaboration between NOAA, The Nature Conservancy and other project partners. The collaborative nature of the program extends to RESTORE Council members and to project partners. The GulfCorps relies on input from Council members and project partners to identify, plan and implement restoration actions in the Gulf States. NOAA has adaptively managed the program by seeking input from Council members and project partners to identify and implement program improvements including expanded work seasons and accelerated job placement training. Collaboration with internal and external partners has been critical to the development of a robust and GulfCorps program and NOAA intends to maintain this collaboration to implement and adapt the program to meet the Council members' needs.

#### *Public Engagement, Outreach, and Education:*

The Program will continue to build on the first 3 years of its public engagement, outreach and education strategy. The Program has an Outreach and Education Coordinator who actively manages and collaborates on the Program's Facebook page ([www.facebook.com/GulfCorps](http://www.facebook.com/GulfCorps)), contributes to substantive updates on the public website ([www.nature.org/gulfcorps](http://www.nature.org/gulfcorps)), coordinates film crew activities, drafts fact sheets and delivers presentations at regional/state conferences. Program staff also continually seek input from RESTORE Council representatives and staff, corps staff and crews, project partners, NOAA staff and community members on ways to engage Gulf communities in discussions on the importance of restoring and conserving the Gulf of Mexico ecosystems and economies to better serve future generations.

To date, GulfCorps, staff/members have attended/presented at numerous conferences and public meetings: Gulf of Mexico Alliance (GoMA) 2019 All Hands Meeting, Coastal and Estuarine Research Foundation 2020 Conference, 2019 Florida Deepwater Horizon Restoration Summit, the inaugural Alabama Governor's Restoration Summit and RESTORE Council public meetings in all 5 Gulf states. The Program partnered with GoMA on the Embrace the Gulf 2020 campaign to highlight the Gulf community, tourism, economy, education and environment 10 years post Deepwater Horizon. In July 2019 staff collaborated with NOAA's National Marine Fisheries Service on the Habitat Month campaign, posting on Twitter and Facebook. Crews also engaged in local outreach/education programs through project partner events, such as planting and cleanup days. Film crews from TNC, NOAA and Mary Kay Cosmetics featured crews from all 5 states in film projects that can be found on YouTube and the Program website.

Moving forward Program staff will continue to expand the communication strategy by actively updating the Facebook page and public website with crew member/partner highlights; videos produced by TNC, NOAA, and others; fact sheets; and upcoming events. Staff will explore ways to partner with institutions of higher learning to help members propel their careers post-GulfCorps. Staff will continue to present at conferences, retreats and other public gatherings and collaborate with other NGOs in encouraging communities to support their local Corps.

*Leveraging:*

Funds: \$200,000.00

Type: Bldg on Others

Status: Proposed

Source Type: Other

Description: Other Federal, State, and Not for Profit project partners will provide trainers for S212 Chainsaw Training and S130/190 Wildland Firefighter Type II including the arduous pack tests, and other training courses for participants. This will save the GulfCorps program the cost associated with these necessary certifications. Additional training will be provided as needed.

Funds: \$2,000,000.00

Type: Co-funding

Status: Proposed

Source Type: Other

Description: AmeriCorps, CNCS (Corporation for National Community Service) and other workforce and conservation corps funding programs will be used to supplement crew stipends through existing grant agreements and programs. As a result these leveraged co-funding sources will provide the operational budget needed to cover up to 25% of the costs needed to support a crew for a full year. Also, many GulfCorps members will be eligible to receive educational award opportunities in the form of scholarships to cover expenses related to higher education or vocational training

Funds: \$9,200,000.00

Type: Bldg on Others

Status: Received

Source Type: Other Federal

Description: The continuation of the GulfCorps program will build upon the infrastructure and experience developed with investment of RESTORE Council FPL1 (and amendment) funding. Due to this previous investment, the GulfCorps would be able to start work immediately upon funding without a ramping up period.

*Environmental Compliance:*

As the lead federal agency for the GulfCorps Program, NOAA will complete applicable environmental compliance prior to the implementation of any GulfCorps on-the-ground work. Initially, the GulfCorps program will implement priority restoration activities through a series of previously approved, NEPA-authorized conservation, restoration and resilience projects sites throughout the Gulf of Mexico's coastal zone that have already completed required NEPA compliance. These 140 distinct projects (see attachment 1) are NEPA-compliant through 2025. The projects were identified based on input provided by state RESTORE Council representatives during the first four years of the program.

As new projects and sites as recommended for the program, NOAA will utilize Restoration Center's Programmatic Environmental Impact Statement (PEIS) to analyze environmental impacts and comply with NEPA [30]. The GulfCorps program proposes to continue project work at the compliant sites while annually adjusting the scopes of work and NEPA authorizations based on the progress of work and continuing opportunities that may arise.

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## **Budget**

### *Project Budget Narrative:*

The requested \$11,971,250 budget includes funding for planning, implementation, monitoring, and data management. Ten percent of the budget will be allocated towards planning activities including the identification of conservation and restoration projects, organizational development, and ensuring environmental compliance. The implementation budget (86% of the total) includes funding for up to 11 crews across the Gulf (1-3 crews per state). Each crew will support teams of up to 8 young adults, with up to 88 total participants a year for 4 years. The length of work season will grow each year, beginning with approximately 7-9 months in year 1, and expanding to 8-11 months in years 2-3, and 10-12 months in year 4. Work season length will vary by state based on the funding allocation for each state. The implementation budget also includes personnel time and costs associated with the management and support of crews, crew leaders, and project outcomes. This includes partner personnel communications, management of the project budget, project logistics, performance issues, and other actions in direct support of the Corps team. The monitoring and adaptive management budget will provide for creating and maintaining the GulfCorps monitoring protocols and plans for each metric and project as well as providing comprehensive training on advanced monitoring and data collection techniques. The budget for data management includes maintaining publically available program data on a cloud-based data entry platform and on a public-facing server to make the data accessible to the interested public.

### *Total FPL 3 Project/Program Budget Request:*

\$ 11,971,250.00

*Estimated Percent Monitoring and Adaptive Management: 2 %*

*Estimated Percent Planning: 10 %*

*Estimated Percent Implementation: 86 %*

*Estimated Percent Project Management: N/A*

*Estimated Percent Data Management: 2 %*

*Estimated Percent Contingency: 0 %*

### *Is the Project Scalable?:*

Yes

### *If yes, provide a short description regarding scalability.:*

The GulfCorps program can be modified if needed. For example, the number of young adult participants and the length of their work season can be scaled up or down. If further reductions are required, a reduction in the number of participants would be preferred to shorter work terms, since shorter terms decrease efficiency significantly. The number of acres and amount of work hours are directly proportionate to the size of the crews and their planned duration. Therefore, any scaling down of the program would result in commensurate reductions to the Anticipated Benefits listed above. To maintain program viability, there is a limit to how much the program can be reduced.

## Environmental Compliance<sup>1</sup>

Environmental Requirement	Has the Requirement Been Addressed?	Compliance Notes (e.g., title and date of document, permit number, weblink etc.)
<b>National Environmental Policy Act</b>	Yes	All GulfCorps projects have complete NEPA via the NOAA Restoration Center PEIS. The projects reviewed in year 3 are the same projects that will be implemented in years 4-8. Any new projects selected for implementation will have all environmental compliance completed before groundbreaking activities start. Providing an example of NEPA documentation from GulfCorps Year 3 activities in Mississippi.
<b>Endangered Species Act</b>	Yes	As a part of the NEPA compliance process, ESA consultations with USFWS and NMFS have already been completed. The projects reviewed in year 3 are the same projects that will be implemented in years 4-8. Any new projects selected for implementation will have all environmental compliance completed before groundbreaking activities start. Providing an example of ESA documentation from GulfCorps Year 3 activities in Mississippi.
<b>National Historic Preservation Act</b>	Yes	As a part of the NEPA compliance process, NHPA consultations with state SHPOs have already been completed. The projects reviewed in year 3 are the same projects that will be

<sup>1</sup> Environmental compliance documents available by request ([restorecouncil@restorethegulf.gov](mailto:restorecouncil@restorethegulf.gov)).

Environmental Requirement	Has the Requirement Been Addressed?	Compliance Notes (e.g., title and date of document, permit number, weblink etc.)
		implemented in years 4-8. Any new projects selected for implementation will have all environmental compliance completed before groundbreaking activities start.
<b>Magnuson-Stevens Act</b>	N/A	Note not provided.
<b>Fish and Wildlife Conservation Act</b>	N/A	Conducted in conjunction with the ESA consultation. The projects reviewed in year 3 are the same projects that will be implemented in years 4-8. Any new projects selected for implementation will have all environmental compliance completed before groundbreaking activities start.
<b>Coastal Zone Management Act</b>	N/A	As a part of the NEPA compliance process, CZMA consultations with coastal zone managers have already been completed. The projects reviewed in year 3 are the same projects that will be implemented in years 4-8. Any new projects selected for implementation will have all environmental compliance completed before groundbreaking activities start.
<b>Coastal Barrier Resources Act</b>	N/A	Conducted in conjunction with the ESA. The projects reviewed in year 3 are the same projects that will be implemented in years 4-8. Any new projects selected for implementation will have all environmental compliance completed

Environmental Requirement	Has the Requirement Been Addressed?	Compliance Notes (e.g., title and date of document, permit number, weblink etc.)
		before groundbreaking activities start.
<b>Farmland Protection Policy Act</b>	N/A	Note not provided.
<b>Clean Water Act (Section 404)</b>	N/A	Note not provided.
<b>River and Harbors Act (Section 10)</b>	N/A	Note not provided.
<b>Marine Protection, Research and Sanctuaries Act</b>	N/A	Note not provided.
<b>Marine Mammal Protection Act</b>	Yes	Conducted in conjunction with the ESA consultation. The projects reviewed in year 3 are the same projects that will be implemented in years 4-8. Any new projects selected for implementation will have all environmental compliance completed before groundbreaking activities start.
<b>National Marine Sanctuaries Act</b>	N/A	Note not provided.
<b>Migratory Bird Treaty Act</b>	Yes	Conducted in conjunction with the ESA consultation. The projects reviewed in year 3 are the same projects that will be implemented in years 4-8. Any new projects selected for implementation will have all environmental compliance completed before groundbreaking activities start.
<b>Bald and Golden Eagle Protection Act</b>	N/A	Conducted in conjunction with the ESA consultation. The projects reviewed in year 3 are the same projects that will be implemented in years 4-8. Any new projects selected for implementation will have all environmental compliance completed before groundbreaking activities start.

Environmental Requirement	Has the Requirement Been Addressed?	Compliance Notes (e.g., title and date of document, permit number, weblink etc.)
Clean Air Act	N/A	Note not provided.
Other Applicable Environmental Compliance Laws or Regulations	N/A	Note not provided.

**Maps, Charts, Figures**

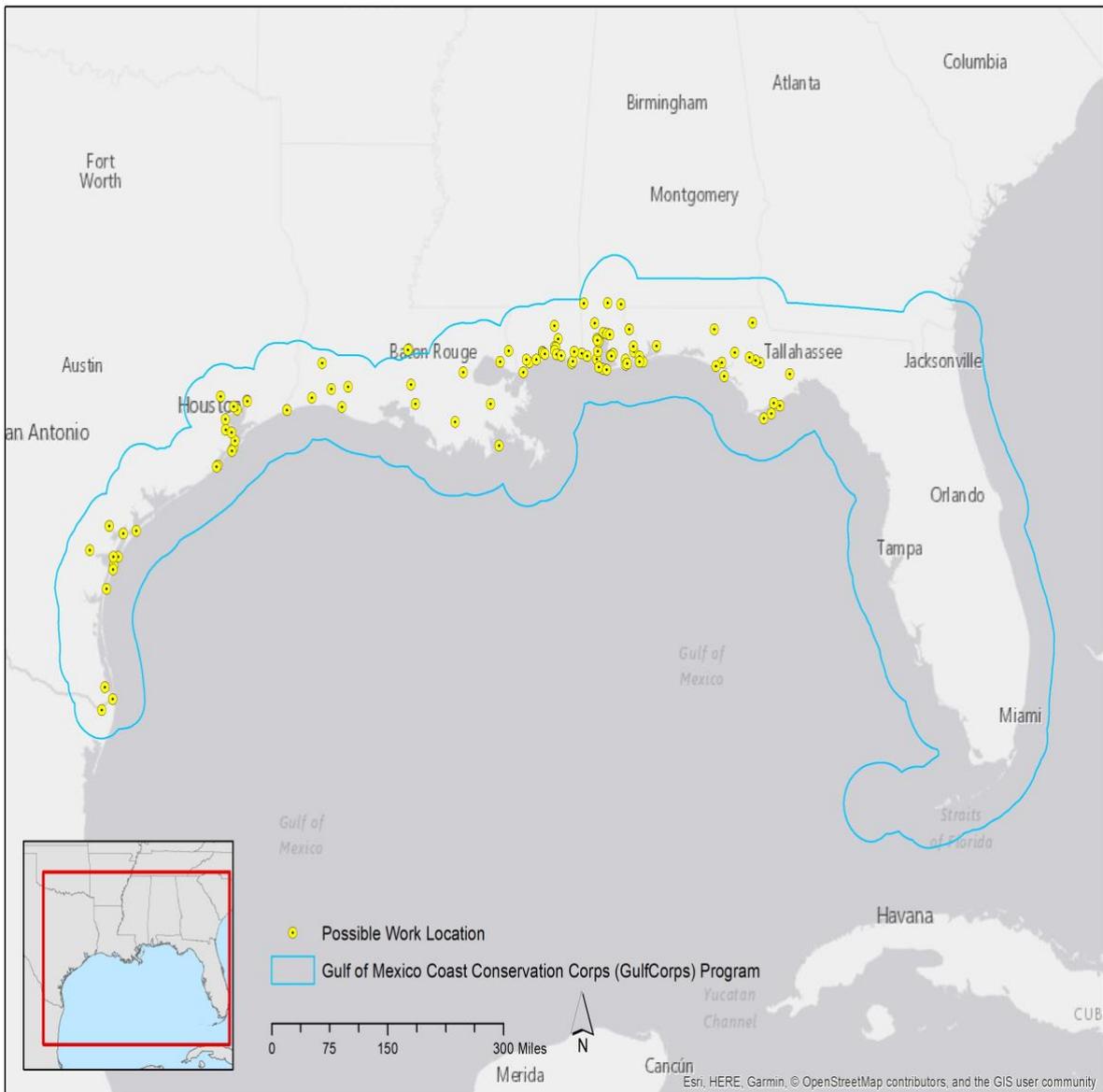


Figure 1: Map of program location and potential work sites.

## **Other Uploads**

Tables\_1:

Attachment 1-Proposed Project List for GulfCorps.pdf

Table describing GulfCorps project locations with completed environmental compliance.

[Link to Download](#)

<http://www.restorethegulf.gov/apps/piper/web/Uploads/Download/proposal/603/38>