RESTORE Council Activity Description

General Information

Proposal Sponsor:
Alabama Department of Conservation and Natural Resources (ADCNR)

Title:
Perdido Watershed Water Quality Improvements and Restoration Assessment Program

Project Abstract:
Alabama, through the Alabama Department of Conservation and Natural Resources (ADCNR), is requesting $1.5M in Council-Selected Restoration Component funding for the proposed Perdido Watershed Water Quality Improvements and Restoration Assessment Program. This would include planning funds as FPL Category 1. The program will support the primary RESTORE Comprehensive Plan goal to restore water quality and quantity through activities to coordinate the location and sequencing of selected restoration projects in the Perdido Watershed that could be expected to improve water quality and habitat, as well as restoration assessment program to monitor the potential collective impacts to water quality of the co-located projects and other restoration projects within the watershed.

Located in Southern Alabama and Northwest Florida, the Perdido Watershed covers approximately 1,100 square miles and is dominated by the 63 mile-long Perdido River. This watershed plays a critical role in the health of the ecosystem of Southeast Alabama and Northwest Florida. The components of the watershed, including the tributaries, floodplains, bayous, and wetlands of the Perdido provide water quality and quantity protection through healthy floodplains, which store and disperse runoff from storms and recharge aquifers. In addition to the anticipated benefits of improved water quality and habitats, this program could also serve as a model for future restoration assessment efforts on the Gulf Coast. Program duration is 3 years.

FPL Category: Cat1: Planning Only

Activity Type: Program

Program: Perdido Watershed Water Quality Improvements and Restoration Assessment 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.

Priority Criteria Justification:
#1 Projects that are projected to make the greatest contribution. This program proposes to coordinate and subsequently assess the potential cumulative benefits of restoration activities in a chosen watershed/subwatershed in order to maximize water quality benefits in a way that is potentially measurable outside of an individual project footprint. Habitat loss as well as potential changes in water

quality are two stressors associated with changes in land use as watersheds like the Perdido develop into more urbanized areas. Projects that address existing and potential water quality impacts would provide significant benefits, especially when considered in the context of the size of the watershed.

Project Duration (in years): 3

Goals

Primary Comprehensive Plan Goal:
Restore Water Quality and Quantity

Primary Comprehensive Plan Objective:
Restore, Improve, and Protect Water Resources

Secondary Comprehensive Plan Objectives:
Improve Science-Based Decision Making Process

Secondary Comprehensive Plan Goals:
N/A

PF Restoration Technique(s):
Improve science-based decision-making processes: Comprehensive planning
Reduce excess nutrients and other pollutants to watersheds: Agriculture and forest management
Reduce excess nutrients and other pollutants to watersheds: Stormwater management
Reduce excess nutrients and other pollutants to watersheds: Wastewater system improvements

Location

Location:
Proposed activities would be located within the Perdido Watershed near the Perdido River in Baldwin County, Alabama, and potentially Escambia County, FL.

HUC8 Watershed(s):
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Florida Panhandle Coastal(Perdido)

State(s):
Alabama
Florida

County/Parish(es):
AL - Baldwin
FL - Escambia

Congressional District(s):
AL - 1
FL - 2

Narratives

Introduction and Overview:
Located in Southern Alabama (70 percent of the watershed) and Northwest Florida (30 percent of the watershed), the Perdido Watershed covers approximately 1,100 square miles and is dominated by the 63 mile-long Perdido River, which provides most of Perdido Bay's freshwater (NWFWMD 2017b). The watershed includes floodplain forests, hydric pine forests, longleaf pine forests, and freshwater wetlands. The major land uses for the Perdido Watershed are diverse, with evergreen and deciduous forests making up most of the central and Upper Perdido, crop lands dominating in the southwest and northern portions, and developed land centered primarily in the southeast. The Alabama portion of the Perdido consists of forested uplands (59.9%), agricultural lands (25.1%), wetlands and open water (8.8%), other (6.2%), with Perdido Bay land use consisting of 27.3% forested uplands, 30.6% agricultural lands, 33.2% wetlands and open waters, with 8.9% other (including urbanized, transitional and barren uplands) (ADCNR 2016).

Driven by the diversity of habitats present in the watershed, including riparian and freshwater wetland habitats, estuarine habitats and marine/coastal habitats the Perdido is home to thirty threatened, endangered and/or protected plant species including the White-top pitcher plants (Sarracenia leucophylla) and a number of animals including the Perdido Key Beach Mouse (Peromyscus polionotus trissyllepsis) the Reticulated Flatwoods Salamander (Ambystoma bishop) and the West Indian Manatee (Trichechus manatus latirostris) (NWFWMD 2017).

Proposed activities: This proposal contemplates a multi-member program to coordinate the location and sequencing of all or a subset of individual member projects (and other restoration projects) in the Perdido Watershed that could be expected to improve water quality and habitats. It also proposes a restoration assessment program to monitor the potential collective impacts to water quality and habitats of the co-located projects, and/or other funded restoration projects in the watershed.

Proposed activities include:

1. Identification of one or more subwatersheds in the Perdido area to support coordination of restoration actions in the watershed as well as the development of watershed scale indicators to track restoration progress. This work will be coordinated by ADCNR and will be open to participation from other Council members and potentially to select stakeholders in the watershed. Given the relatively small scale of the watershed, the entire Perdido watershed may be selected in lieu of one or more subwatersheds.
2. Identification of individual member projects within the subwatershed, that have been or will be implemented in the Perdido watershed, with an emphasis on the selected subwatershed(s). Project type include but are not limited to: agriculture and silviculture BMPs, riparian buffer restoration, habitat acquisition and enhancement, wastewater and stormwater improvements, living shorelines, etc. Projects funded by other restoration funding sources will also be identified and utilized in the development of the restoration progress tracker, discussed in Item 3.
3. Development of a restoration assessment/restoration progress tracker to better understand the potentially collective impacts of restoration projects in the watershed/subwatershed. Outputs potentially include the development of one or more conceptual models, short-term and long-term indicators and a restoration progress tracker/monitoring framework.

There are five goals within the RESTORE Councils comprehensive plan. This Program addresses one of those goals, Goal #2: Restore Water Quality and Quantity. The Program ties in with RESTORE Councils primary objective of Restore, Improve, and Protect Water Resources as well as Science to Support Decision-making. This goal is applicable to the proposed activities because a number of the projects being implemented or proposed for implementation in the watershed are expected to provide water

quality benefits. This program will support the identification of benefits at a scale larger than the individual project level. The Perdido watershed was identified as a priority geographic area in the Council Planning Framework and supports the Restoration Approach to Reduce excess nutrients and other pollutants to watersheds

Under the 2016 Comprehensive Plan update the Council advanced the following commitments:
• Regional ecosystem-based approach to restoration: Through extensive collaboration engagement opportunities as a result of the CPS support funds, it is clear that water quality is a priority goal for the Restore Council members from Florida to Texas. Addressing water quality degradation and impairment is a foundational component of restoring/enhancing a host of living and coastal marine resources.
• Leveraging resources and partnerships: FPL3a included a project to purchase and conduct habitat restoration on 10000-12,000 acres in the watershed. That project serves as an anchor for a watershed-scale effort to conduct water quality and habitat improvements in the Perdido Watershed. Finally, Alabama is proposing a water quality improvements program via another proposal, and one or more projects could be selected via that program, if funded, in the Perdido Watershed.
• Engagement, Inclusion, and Transparency: Since 2010, ADCNR and the State of Alabama have provided multiple opportunities for the public to identify restoration funding priorities. Water quality improvement and science-based decision-making have been consistent themes of public input. Within the MBNEP stakeholder engagement efforts for the CCMP development, water quality, its assessment and improvement, are identified as a priority restoration activity.
• Science-based decision-making: The proposed activities will provide a science-based framework to evaluate the impacts of projects outside of their implementation footprint.
• Delivering results and measuring impacts: Monitoring the pervasive water quality degradation and the indirect impacts on living coastal and marine resources is challenging. This project would develop a framework to assess progress towards restoration goals at the subwatershed or watershed level.

Environmental Stressors:
Because of its relatively small size, the Perdido Watershed can experience rapid changes in water quality due to wind, tides and rainfall. Dominating influences in the watershed include human use, silviculture, agriculture and the Intercoastal Waterway, which was constructed in the early 1900s. Stressors in the watershed include water quality issues emanating from nonpoint source pollution, including the use of onsite septic systems and runoff associated with agriculture and silviculture activities (NWFWMD 2017). Land use conversion and urbanization have contributed to the loss of habitats, including 80% of historic sea grass habitats (Kirschenfeld et al. 2007) , and have impaired water quality of several waterbodies. Low Dissolved Oxygen, turbidity and bacteria are a few of the impairments in the watershed. Dissolved oxygen levels vary seasonally and also change rapidly as a result of tidal and wind influence (Xia et. al., 2011).

Projected increases in population predict a near doubling of urban areas within the Wolf Bay portion of the Perdido Watershed (Wand and Kalin 2018) and a 10% growth by 2030 estimate for the Florida areas of the watershed (NWFWMD 2017), which will further exacerbate these environmental challenges. Balancing continued coastal development with the need to restore and enhance coastal ecosystem is a complex challenge (Thom et. al., 2005). In the absence of management, degradation associated with nonpoint source pollution and land use changes could threaten habitats and water quality as human populations increase. Climate change also threatens the health of the watershed, potentially impacting precipitation patterns, increasing flooding and inundation risks and impacting groundwater quality via saltwater intrusion (Pendleton et al., 2010).

Consideration of these trends and stressors is critical to the development of indicators that will be sufficiently robust to be detected amidst the “noise” of the system as a result of current environmental conditions. This will occur throughout the project, and specifically as an initial activity under task 3, as

part of the restoration assessment development.

Environmental Benefits:
The Perdido Watershed plays a critical role in the health of the ecosystem of Southeast Alabama and Northwest Florida. The components of the watershed, including the tributaries, floodplains, bayous, and wetlands of the Perdido provide water quality and quantity protection through healthy floodplains; healthy floodplains store and disperse runoff from storms and recharge aquifers. Undeveloped areas act as natural filters, protecting water quality of coastal waters that sustain wildlife such as recreationally and commercially important fish and oyster resources. The wetlands of the Perdido Watershed and coastal barrier islands also provide resiliency and protection against climate risks, hurricanes, and other storm events (NWFWMD 2017b).

The Perdido Watershed is still relatively undeveloped—there is a significant opportunity to proactively manage urbanization in the watershed, potentially preserving water quality and proactively addressing anticipated future conditions. This watershed is an ideal location to conduct an assessment of restoration progress given the relatively small size of the watershed and the prevalent stressors. In addition to assessing progress within the Perdido watershed, this project could serve as a pilot/model for similar efforts in other watersheds.

Total Cost: $1,500,000

Timeline: 3 years

Partners: The program activities would be open to all interested RESTORE Council members.

Proposed Methods :

This proposal contemplates a multi-member program to support the coordination of restoration implementation in the Perdido watershed or subwatershed(s), and to develop a framework to assess restoration progress of projects collectively achieving habitat and water quality improvement goals.

Broadly, proposed activities include:

1. Identification of one or more subwatersheds in the Perdido area to support coordination of restoration actions in the watershed as well as the development of watershed scale indicators to track restoration progress. This work will be coordinated by ADCNR and will be open to participation from other Council members and potentially to select stakeholders in the watershed. If the project is approved for funding, ADCNR will reach out to potential stakeholders to form a project technical team. ADCNR will utilize the CMAP gap analysis results in the Perdido Watershed and other resources to identify areas likely to benefit from water quality and habitat restoration activities based on existing conditions and potential future trends (CMAP 2019). Given the relatively small scale of the watershed, the entire Perdido watershed may be selected in lieu of one or more subwatersheds.
2. Identification of individual member projects within the subwatershed, that have been or will be implemented in the Perdido watershed, with an emphasis on the selected subwatershed(s). Project type include but are not limited to: agriculture and silviculture BMPs, riparian buffer restoration, habitat acquisition and enhancement, wastewater and stormwater improvements, living shorelines, etc. Projects funded by other restoration funding sources will also be identified and utilized in the development of the restoration progress tracker, discussed in Item 3. Identification of focal areas and current gaps are critical considerations when assessing restoration activities (Menz et. a., 2005). The results of these tasks will be used to inform future activities for the program, including the development of conceptual models and indicators, described below. This step-wise approach will increase the likelihood of identifying a program area where changes as a result of restoration efforts could be detected in the broader ecosystem, discussed more below in the risk section.

3. Development of a restoration assessment/restoration progress tracker to better understand the potentially collective impacts of restoration projects in the watershed/subwatershed. Outputs potentially include the development of one or more conceptual models, short-term and long-term indicators and a restoration progress tracker/monitoring framework. Flexibility to apply monitoring and adaptive management at different scales is a key element of a successful restoration assessment effort (McKay et. al., 2012). Potential approaches to a program or resource level monitoring could include the development of resource-specific and/or geographically-based conceptual models to facilitate the understanding of potential impacts of restoration projects relative to the "noise" of the system (e.g., pollution, climate change that could be impacting the ecosystem). The specific outputs will be refined based on the completion of Tasks 1 and 2. One primary goal of Task 3 will be to incorporate existing monitoring programs within the watershed (CMAP will be a primary source of information) and maximizing project level monitoring.

The specific details regarding the development of a restoration progress assessment/tracker will be determined based on the results of activities discussed in Items 1 and 2, above (e.g., an understanding of current data available and gaps will inform the selection of indicators and the level of resolution that can be achieved). Given that implementation of specific restoration activities are outside of the scope of this program, the methods discussion below will focus on the specific tasks that will take place as part of this program, namely the identification of projects within the watershed and the completion of a framework for the restoration progress tracker, and not on the methods utilized to implement specific restoration activities.

As restoration associated with DWH funds proceeds, it will become increasingly difficult to monitor the impacts of all projects for all species and all habitats where restoration is occurring. Additionally, ongoing changes in ecosystem form and function as a result of multiple stressors can make quantifying the impacts of restoration activities difficult. Tools such as conceptual models and ecosystem indicators can assist in the tracking of impacts while maximizing the use of available data. Restoration progress tracking is also important in telling the public story of how restoration is progressing and how projects being implemented are collectively benefiting the coastal ecosystem.

Understanding the ecosystem impacts of a single restoration project and developing an effective monitoring plan and adaptive management approach is a complex task (Ralph & Poole, 2003; Murphy & Weiland, 2014). Evaluating the potential impacts of a suite of restoration activities in a given geographic area (e.g., watershed) is even more difficult due to potential synergistic effects of projects as well as a project's relative impact in relation to the stressors acting upon it. Understanding these potential relationships and then adapting a restoration program in response to maximize benefits is more complex still (Diefenderfer et al., 2011).

As the scale for evaluating restoration progress expands beyond the individual footprint of a project, it is increasingly difficult to 'separate the restoration signal from the noise.' For example, year-to-year fluctuations in freshwater inputs have the potential to cause variability in oyster populations, which might mask underlying improvements in productivity resulting from oyster reef restoration.

As part of Task 3, ADCNR will identify potential major gaps in the availability of information to support watershed-level assessments for the types of projects being implemented. Under this task, ADCNR may additionally identify priorities for filling critical information needs. Any gaps identified would articulate why such information is important to the design of ongoing restoration programs, how the information could be made available in a timely manner, and why collection of such information can be accomplished cost-effectively, all important considerations given the relatively limited funding for restoration and associated monitoring activities (Baldera et. al., 2018). ADCNR may also identify potential project-level metrics for monitoring to support consistency and facilitate the ability to

aggregate and synthesize data across projects.

If restoration progress is to be successfully assessed, careful thought must be given to both the types of projects implemented, their potential co-benefits, and the selection of indicators/monitoring parameters that are capable of informing our understanding of progress beyond the project scale, taking into account the potential influence of other contributing or confounding factors that could be driving changes in the watershed (McKay et. al., 2012). These indicators must also be measurable in some way and detectable within a reasonable timeframe relevant to the work of restoration managers. There is a significant body of work that is available to help inform these considerations, including Zedler, 2016; Diefenderfer et. al., 2016; Simenstad et. al.,2006; Doren et. al., 2008.

Any indicators/metrics identified would be aligned with and inform potential metrics used for project-level monitoring but would focus on methods that go beyond simple additive approaches. Ideally, DWH restoration program impacts would be assessed at broad scales in coastal Alabama, with the potential to recognize cumulative and potential synergistic effects of restoration. But perhaps more realistically, given the magnitude and complexity of the underlying ecosystems and the scale of restoration funded with DWH funds, this evaluation may need to occur at scales somewhere between the project level and the full resource scale. Development of potential indicators/metrics could be framed in the context of conceptual models and take into account the specific types of restoration methods that have been or are likely to be adopted to address stressors in the Perdido Watershed.

ADCNR anticipates that the development of a conceptual model and identification and selection of indicators/metrics could involve the following types of considerations:

What might be considered reasonable definitions of 'progress' for specific restoration activities?
What is the broadest spatial (and/or shortest temporal?) scale at which we are likely to be able to discern the impacts of restoration efforts given the available funding and potential spatial and temporal distribution of projects for a restoration type? Is it the sub-watershed? Watershed? Areas of concentrated restoration activity?
At the relevant scale, what are the ideal indicators that would best allow monitoring the impacts of restoration within the selected geographic area?
Are indicator data of this type and of reasonable quality currently collected at the relevant scale, and if not, what are the closest currently collected data that might serve as potential surrogates?
How robust are the indicators with respect to other potentially contributing or confounding independent factors that affect restoration progress? Are other data available to simultaneously evaluate the potential impacts of the most important contributing or confounding factors?
If no data are currently available to support a needed resource-level indicator (or critical contributing or confounding factors), how significant an effort would be involved in collecting it?
Are there broader measures of coastal ecosystem health that are worth considering in addition to restoration-specific indicators?
How will the potential suite of indicators be refined and prioritized for the purposes of potential future implementation?

Environmental Benefits:

The benefits of the project include not only the improvements to water quality that could result from individual project implementation, but the program could also provide a case study for how to assess restoration impacts at the program level while maximizing collaboration and cost efficiencies.

The Perdido Watershed plays a critical role in the health of the ecosystem of Southeast Alabama and Northwest Florida. The components of the watershed, including the tributaries, floodplains, bayous, and

wetlands of the Perdido provide water quality and quantity protection through healthy floodplains; healthy floodplains store and disperse runoff from storms and recharge aquifers. Undeveloped areas act as natural filters, protecting water quality of coastal waters that sustain wildlife such as recreationally and commercially important fish and oyster resources. The wetlands of the Perdido Watershed and coastal barrier islands also provide resiliency and protection against climate risks, hurricanes, and other storm events (NWFWMD 2017b).

The Perdido Watershed is still relatively undeveloped—there is a significant opportunity to proactively manage urbanization in the watershed, potentially preserving water quality and proactively addressing anticipated future conditions. This watershed is an ideal location to conduct an assessment of restoration progress given the relatively small size of the watershed and the prevalent stressors. In addition to assessing progress within the Perdido watershed, this project could serve as a pilot/model for similar efforts in other watersheds.

Metrics:

Metric Title: PRM003 : Management or Governance Planning - # plans developed
Target: 1
Narrative: The number of plans completed whose findings are used to adapt management/ inform management or governance.

Metric Title: PRM009 : Research - # studies reported to mgmt.
Target: 2
Narrative: The number of studies completed whose findings are used to adapt management/ inform management decisions.

Risk and Uncertainties:
This is a planning project, so implementation risks are relatively low. Risks to the project include the inability to detect a change in ecosystem condition as a result of project implementation, or the inability to identify a suitable subwatershed for the program (Dorward-King et. al., 2005). Monitoring and adaptive management is challenging at the project scale, and becomes more challenging when attempting to assess the collective impacts of multiple, co-located projects because of the potential for synergies that can result in impacts greater than the additive effects of any one individual project (Bernhardt et. al., 2005; Diefenderfer et. al., 2009; Thom, 2000). Other risks associated with the difficulty of sequencing and implementing projects across multiple states and federal agencies can be mitigated by robust yet flexible planning on the front end to maximize the changes of targets being met (e.g., take into account specific types of projects that are our could be implemented when developing indicators, work to identify indicators that are readily measured and cost-effective). Risks can be mitigated by learning from program level assessment programs like those in the Everglades or Pacific Northwest (May and Horner 1999; Loschiavo, 2013). Additionally, the questions posed for consideration of the development of the conceptual model are designed to help mitigate the risks of being unable to detect a change in ecosystem condition as a result of restoration efforts. Key to this consideration is this question: what is the broadest spatial (and/or shortest temporal) scale at which we are likely to be able to discern the impacts of restoration efforts given the available funding and potential spatial and temporal distribution of projects for a restoration type?

Monitoring and Adaptive Management:
As this is a planning project, no monitoring will be conducted. However, monitoring parameters for future implementation efforts could be identified. Project outcomes including conceptual model(s) and restoration tracker/framework will be tracked through the program's observational data plan and data

management plan.

Data Management:

To the extent practicable, all data generated will be documented using standardized field datasheets. If standardized datasheets are unavailable or not readily amendable to record project-specific data, then project-specific datasheets will be drafted prior to conducting any project monitoring activities. Original hardcopy datasheets, notebooks, and photographs will be retained by the ADCNR. Relevant project data that are handwritten on hardcopy datasheets or notebooks will be transcribed (entered) into standard digital format. All data will have properly documented FGDC/ISO metadata, a data dictionary (defines codes and fields used in the dataset), and/or a Readme file as appropriate (e.g., how data was collected, QA/QC procedures, other information about data such as meaning, relationships to other data, origin, usage, and format – can reference different documents). Electronic data files will be named with the date on which the file was created and will include a ReadMe file that describes when the file was created and by whom, and any explanatory notes on the file contents. If a data file is revised, a new copy will be made and the original preserved. Data will be made publicly available and accessible on a website that is still to be determined.

Collaboration:

The basis of a successful program is the participation from multiple members who coordinate to select project locations within the watershed that provide the greatest opportunity for water quality benefits that can be measured outside of a project's footprint. This proposed program builds on Alabama's commitment to a programmatic approach to ecological restoration in the Perdido Watershed and leverages The Perdido River Land Conservation and Habitat Enhancements project in FPL3a.

Additionally, Alabama has proposed a Water Quality Improvements Program in the FPL3b proposal process to identify and construct water quality improvements across coastal Alabama. It is possible that one or more of the selected projects could be implemented in the Perdido Watershed and be included in this proposed restoration assessment.

Public Engagement, Outreach, and Education:

The State of Alabama's prioritization of the Project is based on multiple public and stakeholder engagement activities. Throughout Alabama's restoration public engagement and planning efforts, stakeholders have consistently identified the restoration and protection of coastal habitats as a top priority. The following are examples of public engagement, outreach and education activities which were considered in the selection of this proposal:

<u>Alabama Restoration Summit</u>: ADCNR hosted the Alabama Restoration Summit in 2018. The public was invited to learn about restoration projects and programs and to provide input on current and future priorities for restoration. Based on the public input received, investing in coastal habitat restoration and protection and science-based decision-making continues to be a top priority of stakeholders.

<u>Alabama Watershed Management Plans (NFWF-GEBF; RESTORE)</u>: Starting in 2013, the Mobile Bay National Estuary Program (MBNEP) has published several coastal watershed management plans (WMPs) that provide guidance for restoration. These plans depend upon public involvement and "stakeholders" who know the area, recognize its problems, and are invested in its health and resilience. Each plan includes a watershed description that educates communities about the geography, geology, biology, ecology, and hydrology of the drainage area's land and water. Although stakeholder engagement and education strategies are unique across WMPs, all of the plans have included stakeholder community meeting to gather feedback from the public

<u>RESTORE Act Alabama State Expenditure Plan</u>: ADCNR has solicited stakeholder input to support planning and development of the Alabama State Expenditure Plan (MSEP). Engagement with a wide

range of stakeholders, including private citizens, non-governmental organizations, business owners, elected officials, and other community leaders, has informed the priorities for restoration.

Leveraging:

Funds: $26,800,000.00
Type: Bldg on Others
Status: Committed
Source Type: Other
Description: The Perdido River Land Conservation and Habitat Enhancements project consists of the acquisition and management of approximately 10,000-12,000 acres in the Perdido Watershed, located in Baldwin County, AL. Upon acquisition, the Alabama Department of Conservation and Natural Resources (ADCNR) will conduct habitat management and stewardship on the tract, which could include prescribed burning, invasive species removal, longleaf pine restoration, and protection and habitat enhancements for species including the gopher tortoise.

Funds: $26,800,000.00
Type: Bldg on Others
Status: Committed
Source Type: Other
Description: The Perdido River Land Conservation and Habitat Enhancements project consists of the acquisition and management of approximately 10,000-12,000 acres in the Perdido Watershed, located in Baldwin County, AL. Upon acquisition, the Alabama Department of Conservation and Natural Resources (ADCNR) will conduct habitat management and stewardship on the tract, which could include prescribed burning, invasive species removal, longleaf pine restoration, and protection and habitat enhancements for species including the gopher tortoise.

Funds: $2,200,000.00
Type: Bldg on Others
Status: Committed
Source Type: Other
Description: Key project components: establishing the host organizations and hiring of key staff, determining stressors and then developing and approving a Comprehensive Plan. Specific actions: implementing BMPs for nonpoint source water quality improvement; protecting shoreline and upland habitat through easement or purchase; implementing green infrastructure measures; designing and constructing storm water parks; completing and implementing watershed management plans; protecting, restoring and managing critical aquatic, shoreline and upland habitat through a variety of hydrologic, landscape, vegetation and wildlife management actions; establishing living shoreline habitat; and implementing other water quality and habitat restoration techniques.

Environmental Compliance:
Council approval of funding for this activity would not involve or lead directly to ground-disturbing activities that may have significant effects on the environment individually or cumulatively, nor does it commit the Council to a particular course of action affecting the environment. These planning activities would be expected to be covered by the Council's NEPA Categorical Exclusion for planning, research or design activities (Section 4 (d)(3) of the Council's NEPA Procedures).

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Budget

Project Budget Narrative:
A total of $1,500,000 is being requested from FPL 3a to fund planning, development of a restoration progress tracking framework and data management. This project is categorized as Category 1, Planning. Activities will include, but will not limited to: project management and administration, including administrative programmatic functions, coordination, and contractual support for project implementation; identification of study areas and potential projects for inclusion; coordination with project leaders and information gathering and development of one or more conceptual models and the development of short-term and long-term indicators and the elements of the restoration progress tracker/monitoring framework. Additional activities will include public outreach and engagement as well as the development of the final framework/restoration tracker report and evaluations and any related publications. An estimated 0.5% of this request is for data management. No funds are being requested for contingency or monitoring and adaptive management activities.

Total FPL 3 Project/Program Budget Request:
$ 1,500,000.00

Estimated Percent Monitoring and Adaptive Management: 0 %
Estimated Percent Planning: 100 %
Estimated Percent Implementation: 0 %
Estimated Percent Project Management: 0 %
Estimated Percent Data Management: 0 %
Estimated Percent Contingency: 0 %

Is the Project Scalable?:
No

If yes, provide a short description regarding scalability.:
N/A

Environmental Compliance

Environmental Requirement	Has the Requirement Been Addressed?	Compliance Notes (e.g.,title and date of document, permit number, weblink etc.)
National Environmental Policy Act	Yes	These planning activities are covered by the Council's NEPA Categorical Exclusion for planning, research or design activities (Section 4(d)(3) of the Council's NEPA Procedures).
Endangered Species Act	N/A	Note not provided.
National Historic Preservation Act	N/A	Note not provided.
Magnuson-Stevens Act	N/A	Note not provided.
Fish and Wildlife Conservation Act	N/A	Note not provided.
Coastal Zone Management Act	N/A	Note not provided.
Coastal Barrier Resources Act	N/A	Note not provided.
Farmland Protection Policy Act	N/A	Note not provided.
Clean Water Act (Section 404)	N/A	Note not provided.
River and Harbors Act (Section 10)	N/A	Note not provided.
Marine Protection, Research and Sanctuaries Act	N/A	Note not provided.
Marine Mammal Protection Act	N/A	Note not provided.
National Marine Sanctuaries Act	N/A	Note not provided.
Migratory Bird Treaty Act	N/A	Note not provided.
Bald and Golden Eagle Protection Act	N/A	Note not provided.
Clean Air Act	N/A	Note not provided.
Other Applicable Environmental Compliance Laws or Regulations	N/A	Note not provided.

Maps, Charts, Figures

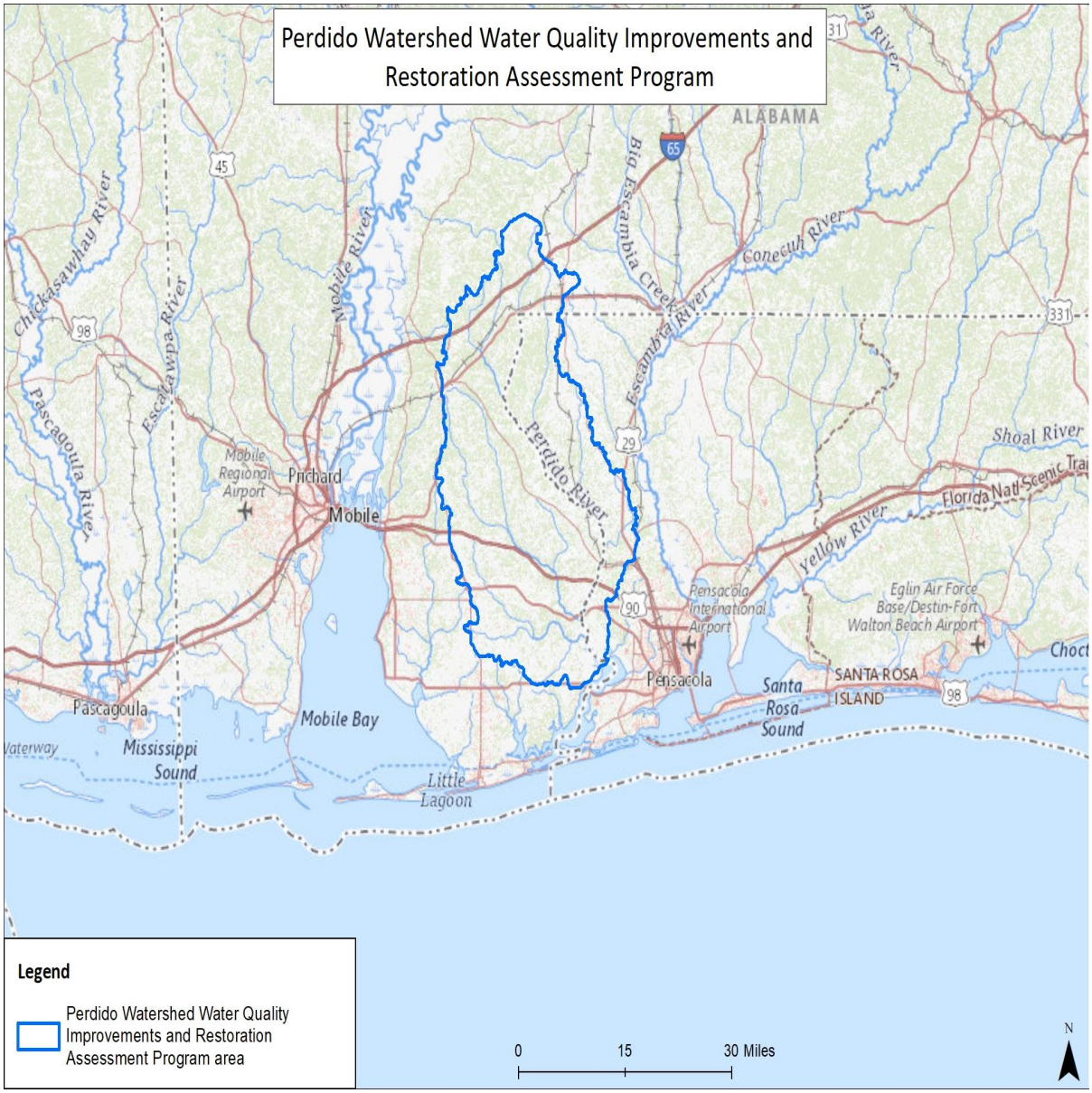

Figure 1: Map of Program Area