RESTORE Council FPL 3 Proposal Document

General Information

Proposal Sponsor:
Alabama Department of Conservation and Natural Resources

Title:
Perdido River Land Conservation and Habitat Enhancements

Project Abstract:
The proposed project consists of the acquisition and management of approximately 10,000-12,000 acres in the Perdido Watershed, located in Baldwin County, AL. One potential parcel identified for acquisition is known as the Magnolia South Tract. At 11,434 acres, this potential parcel is adjacent to existing conservation lands in public ownership in the Perdido Watershed, with extensive frontage along the Perdido River. This, or other suitable parcel(s), would supplement an existing 17,337 acres in public ownership in the watershed in Alabama, and roughly 12,400 acres in public ownership in the Florida portion of the watershed. Upon acquisition, the Alabama Department of Conservation and Natural Resources (ADCNR) would 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. Acquired land would become part of the Perdido Wildlife Management Area and be accessible to the public for recreational use.

FPL Category:
Cat1: Planning/ Cat2: Implementation

Activity Type: Project

Program: N/A

Co-sponsoring Agency(ies): N/A

Is this a construction project?: Yes

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) 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.

Priority Criteria Justification:
Located in Southern Alabama (70% of the watershed) and Northwest Florida (30% of the watershed), the Perdido Watershed covers approximately 1,100 sq. miles (NWFWMD 2017b). The proposed project would increase habitat connectivity, thus helping to maintain genetic diversity for target species, and maintain key ecological processes such as succession, migration and the ability of a species to meet its habitat requirements (Crouzeilles et al. 2013, Ayram et al. 2015, Baldera et al. 2018). A recent 18-year study in a pine savanna ecosystem found that by increasing habitat connectivity and reducing fragmentation, biodiversity increased by 14% in connected habitats versus fragmented habitats, underscoring the critical role that large-size and connected habitats play in preserving and enhancing biodiversity (Damschen et al. 2019). Projects that enhance habitat connectivity will contribute greatly to the restoration and protection

of the target species and habitats; improving habitat connectivity in the watershed will provide large-scale benefits relative to the size of the watershed (PC1).

Habitat loss, degradation and fragmentation threaten species worldwide, and contribute to declines in biodiversity (Weigand et al., 2005). Preserving and enhancing biodiversity can be achieved via a number of actions, including active restoration of degraded areas, or by preserving, conserving, and actively managing/enhancing habitats and the species that live there (Ferraro and Simpson 2001). Undeveloped areas in the Perdido watershed act as natural filters, protecting water quality of coastal waters that sustain wildlife such as recreationally and commercially important fish and oyster resources (NWFWMD 2017b). 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. The proposed acquisition would increase the current acreage of property in state ownership in the Alabama portion of the watershed from approximately 17,000 to over 28,000, significantly reducing the development potential in the watershed. The acreage of the proposed acquisition is large-scale in nature, especially when considered in the context of the size of the watershed (PC2).

Project Duration (in years): 10

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: N/A

PF Restoration Technique(s):
Land Acquisition; Habitat Management and Stewardship

Location

Location:
Proposed acquisition(s) and habitat management actions would be located within the Perdido Watershed near the Perdido River in Baldwin County, Alabama.

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

State(s):
Alabama

County/Parish(es):
AL - Baldwin

Congressional District(s):
AL - 1

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, designated as an outstanding Florida waterway (NWFWMD 2017b). The Perdido River provides most of Perdido Bay's freshwater. The watershed includes floodplain forests, hydric pine forests, longleaf pine forests, and freshwater wetlands.

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).

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 2017b). Land use conversion and urbanization have contributed to the loss of habitats, including 80 percent of historic seagrass habitats, and have impaired the water quality of waterbody segments in both Alabama and Florida (Kirschenfeld et al. 2007).

This project proposes to acquire and place into state conservation management approximately 10,000-12,000 acres in the Perdido Watershed. The parcel(s) contemplated are currently in silviculture. ADCNR has been engaged in conversation with the landowner about potential acquisition, and as of November 1, 2019, a Yellowbook appraisal is being finalized. Upon acquisition, ADCNR would develop a management plan to identify and prioritize management and restoration activities, with an emphasis on enhancement and protection of gopher tortoise (Gopherus polyphemus) habitat. The proposed project contributes toward the Council's Comprehensive Plan goal to Restore and Conserve Habitat as the proposed project will result in the placement of several thousand acres of habitat into conservation (eliminating potential for future development). Management activities will contribute to the Council's goal of Replenishing and Protecting Living Coastal and Marine Resources through activities such as planting of native species and the enhancement of habitats to support native flora such as the longleaf pine (Pinus palustris) and fauna such as the gopher tortoise (Gopherus polyphemus), a keystone species in the longleaf ecosystem.

Alabama contemplates seven activities under this project with a total project cost of $28,000,000.

Activity 1. Acquire Magnolia South Tract (or other suitable parcel(s)) through fee-simple acquisition.

Stressors addressed by this activity include the potential for future impacts associated with development of the tract, water quality impacts associated with silviculture activities on the site, and habitat fragmentation. Related to a reduction in those stressors, environmental benefits include: increased habitat connectivity, improved water quality, and maintenance of pervious cover (prevented development).

Activity 2. Develop a management plan for acquired lands. The management plan will be based on/a supplement to the Alabama Forever Wild Land Trust Management Plan for Perdido Longleaf Hills Tract and Swift Addition.

Goal of the management plan: inventory, manage, enhance and protect the biodiversity of the natural communities now on the acquired land and those which may naturally succeed the existing communities

following habitat enhancement activities with an emphasis on those species found within the longleaf pine ecosystem.

This goal will be achieved via completion of the following items in the management plan:

a. Inventory the flora and faunal species and habitat characteristics of the tract;
b. Identify and prioritize habitat enhancement and management activities for the tract;
c. Identify management activities to provide for controlled public access to the tract consistent with the primary goal of the project to restore and enhance habitats;
d. Determine public recreation demand for use of the tract and formulate measures to accommodate the demand while providing full protection of the resource;

Activity 3. Conduct immediate management activities for security purposes, including protection of boundaries, marking property lines, construction of a barn for equipment storage and security, and installation of security gates .

Activity 4. Conduct habitat restoration activities, which could include the following:

a. Select, minimal thinning of existing forested areas to facilitate future management and restoration actions.
b. Conduct minimal hydrologic restoration activities to include the mitigation of impacts of ditches and/or roads that are interrupting sheet flow.
c. Prescribed burning and preparation of sites for burning, which could include vegetation management activities to reduce fuel load.
d. Invasive species removal.
e. Planting of native species including longleaf pine and groundcover species.
f. Implementation of management activities for priority species, including longleaf pine and gopher tortoise.

Stressors addressed by this activity include the potential reduction of water quality impacts associated with silviculture activities on the site, and habitat fragmentation, loss, and degradation. Related to a reduction in those stressors, environmental benefits include: increased habitat connectivity, enhanced habitat quality, improved water quality, and support of native species.

Activity 5. Conduct education and outreach activities including the erection of signage and an educational display about the Perdido Watershed and the Perdido Blueway Trail.

Activity 6. Identify and prioritize (in coordination with watershed stakeholders and entities) additional projects in the Perdido Watershed for funding in future FPLs that could further enhance habitat connectivity, improve water quality and/or facilitate the development of the assessment of restoration progress in the watershed.

Together, these activities meet the following Council Comprehensive Plan Objectives: Objective 1: Restore, Enhance and Protect Habitat—through acquisition of undeveloped forest and wetland areas, this project will serve to protect existing habitats from development pressure. Additionally, restoration and enhancement activities proposed will serve to enhance ecosystem form and function of both wetland and forest habitats. Secondary objective that this project addresses is: Objective 6: Promote Natural Resource Stewardship and Environmental Education. The project will enhance habitat for the gopher tortoise and other species that depend on the tortoise in its role as a keystone species. Additionally, Alabama proposes to incorporate education features on the property including signage and an educational kiosk to support an

increased understanding of the value of habitat conservation and how people can participate in conserving and protecting valuable habitats.

Timeline for completion is estimated to be up to ten years total. Acquisition activities would be complete by the end of Year 2, with immediate management activities (Activity 3) taking place upon completion of acquisition. The management plan would be completed in Year 2 and habitat restoration, enhancement and management activities would proceed in years 3-10.

Education and outreach partners potentially include the Pensacola and Perdido Bay Estuary Program, the State of Florida, and local non-governmental organizations active in the area such as The Nature Conservancy.

The Perdido geographic area was included in the RESTORE Council Planning Framework, and the proposed project is consistent with identified restoration approaches and techniques.

Proposed Methods :

Fee simple acquisition of these lands and ownership by the ADCNR is preferred over acquisition by conservation easement. These habitats typically require active management to maintain and improve habitat condition. Introduction of fire, restoration of hydrology where it has been altered by previous land use, and control of exotic and invasive species is often required, and a state or federal owner is more likely to invest the needed time and money to maintain this level of management. In addition, a public owner is generally in a better position to offer an appropriate level of public access to these special places for recreation and education.

Following acquisition, a management plan will be developed based on the existing Perdido WMA Management Plan (ADCNR 2012) that will identify and prioritize management and stewardship activities. The potential activities could include: (1) Select, minimal thinning of existing forested areas to facilitate future management and restoration actions; (2) Conduct minimal hydrologic restoration activities to include the mitigation of impacts of ditches and/or roads that are interrupting sheet flow; (3) Prescribed burning and preparation of sites for burning, which could include vegetation management activities to reduce fuel load; (4) Invasive species removal; (5) Planting of native species including longleaf pine and groundcover species; and (6) Implementation of management activities for priority species, including longleaf pine and gopher tortoise. These activities are proven to be effective in similar habitats and have been implemented successfully across the Southeastern United States. (Outcalt and Brockway, 2010; NRCS 2012; Kirschman, 2018; USFWS (N.D.).

Environmental Benefits:

This area of Baldwin County is rapidly urbanizing, with significant development pressures. Acquiring this property in the Perdido watershed can reduce the amount of land available for development and the associated ecosystem stressors that are the inevitable result of urbanization.

If successful, this acquisition, or acquisition of another suitable parcel with similar connectivity benefits would connect with public lands to the north and south. The Perdido Wildlife Management Area is located to the north, and Forever Wild Land Trust holdings as well as the Lillian Swamp Mitigation Bank are to the south. Additionally, this action would serve as a cornerstone for a broader ecosystem conservation and restoration effort where stressors affecting water quality and habitat quality and function could be addressed synergistically. Together, all of these lands are under active management based on a watershed-specific management plan. More information about the Perdido Watershed Management Area can be found at https://www.alabamaforeverwild.com/perdido-river-wma-spotlight.

Upon acquisition and with subsequent management and stewardship, the overall project outcomes would

be increased habitat connectivity and quality, enhanced recreational access, and increased acreage of land under conservation protection.

As coastal development pressure increases, the need to preserve species and habitats is likely to increase. Acquiring lands for conservation and management purposes is generally accepted as a cost-effective method to maintain and improve ecosystem form and function. Although in some cases, the use of conservation easements may be less expensive in the short-term, fee simple acquisition provides managers the opportunity to conduct restoration activities on the site that could be expected to provide additional habitat and species benefits. The development of a management plan prior to implementation of stewardship activities will allow restoration managers to identify, prioritize, and plan activities that will be most effective at achieving desired habitat goals in the most cost-effective manner possible.

Metrics:

Metric Title: HC003 : Land acquisitions - Acres acquired in fee : Habitat Conservation
Target: 10,000 acres
Narrative: This metric aligns with Goal 1 of the Comprehensive Plan: Restore and Conserve Habitat. The purpose of the metric is to verify that acquisition has been completed, the performance measure will be an executed deed. Upon transfer of the parcel into ADCNR ownership, this metric will be complete. The outcome will be an increase in acres under conservation management in the Perdido Watershed.

Metric Title: HM006 : Improved management practices - Acres under improved management
Target: 10,000 acres
Narrative: This metric aligns with Goal 1 of the Comprehensive Plan: Restore and Conserve Habitat. The purpose of the metric is to verify that the acreage acquired is being managed for conservation purposes. The performance measure will be an executed deed with appropriate conservation language. Additionally, ADCNR will provide an update annually on the total number of acres in active management and the types of activities conducted. The outcome will be an increase in acres under conservation management in the Perdido Watershed.

Metric Title: PRM003 : Management or Governance Planning - # plans developed : Planning, Research, Monitoring
Target: 1 plan
Narrative: This metric aligns with Goal 1 of the Comprehensive Plan: Restore and Conserve Habitat. The purpose of the metric is to verify that a management plan to guide habitat management activities has been developed. Upon completion, ADCNR will provide a copy of the Management Plan to the Council.

Metric Title: RES005 : Recreational improvements - # improvements to recreation infrastructure
Target: 4 improvements
Narrative: This metric aligns with Goal 1 of the Comprehensive Plan: Restore and Conserve Habitat and aligns with Objective 6: Promote Natural Resource Stewardship and Environmental Education. The target performance criteria for this project is the placement of 4 signs and 2 kiosks (2 signs at each kiosk and one standalone sign) that provide information about the project and the Perdido Watershed. Successful completion of this metric will occur once signs and kiosks have been placed on site.

Risk and Uncertainties:

Given the potential development pressure for this riparian corridor, strategic land conservation and land-use management are low risk methods to mitigate impacts from future development. Uncertainties arise from the balance of providing adequate buffers from conservation lands protecting against the unknown future extent and location of urbanization impacts.

Additional risks include being unable to acquire the specific tracts currently contemplated. If negotiations with the seller are unsuccessful, Alabama would identify additional parcels with similar benefits in terms of habitat connectivity within the watershed. ADCNR is actively engaged in conversations with the landowner about potential acquisition and a draft Yellowbook appraisal is being finalized (expected Winter 2019). If negotiations are not successful, ADCNR would identify alternate parcel(s) for acquisition and management based on the following criteria: (a.) Parcel is currently nominated or could be nominated for acquisition into the State's Forever Wild program; (b.) Parcel(s) are located in the Perdido Watershed; (c.) Parcel(s) are adjacent to or near existing lands under conservation management; (d.) Habitat characteristics are similar to target parcel such that management measures could be expected to yield the same or similar benefits. Utilizing these criteria, there are currently a number of alternative parcels that could be suitable for acquisition and management.

Wang and Kalin (2018) examined different land use change scenarios in concert with projected climate change impacts in the Wolf Bay watershed (within the Perdido Watershed) related to changes in Total Suspended Solids (TSS), Total Nitrogen (TN), and Total Phosphorous (TP). Land use change would be expected to result in a decrease in TN as agricultural lands are converted to urban uses, but climate change is expected to increase precipitation and flows, which will impact pollution, particularly in spring and fall. Overall, when considering both projected changes in land use as well as climate change, TSS and TP are expected to increase, while TN is expected to decrease. Overall increases in surface runoff and decreases in baseflows are also predicted. Projects like large-scale habitat acquisition and stewardship consider these projected land use changes. Additionally, project implementors will take into account future projected climate change scenarios when developing management actions. In particular, protecting riparian buffers to lower sediment loading could help offset these anticipated future impacts.

In general, land acquisition is a low-risk method to preserve and protect critical habitats. The stewardship activities being proposed are proven to be effective as well as cost-effective.

Monitoring and Adaptive Management:

Monitoring related to Metric 1 HC003: Land acquisition - Acres acquired in fee will take place immediately following acquisition of the parcel. Acres acquired will be verified by survey during the acquisition process, a standard procedure for evaluating area.

Monitoring related to Metric 2, HM006: Habitat management and stewardship - Acres under improved management will be monitored immediately following acquisition of the parcel. Area will be determined by habitat type via the use of aerial imagery, as discussed in DWH Trustees (2017). Results will be validated via ground truthing. Habitat management activities will be reported on an annual basis beginning in the year stewardship activities begin (estimated in Years 3-10). ADCNR will also provide information on the type and extent of measures implemented as well (e.g., X acres of prescribed burning, X number of native species planted).

Monitoring related to Metric 3, PRM003 will be complete when the management plan is developed, provided to Council staff, and made available publicly. This will likely take place in Year 2, though the timing could change based on acquisition time for the parcel.

Monitoring related to Metric 4, RES005 - Recreational improvements - # improvements to recreational infrastructure will take place following completion and erection of the signage. ADCNR will provide a summary of sign wording, location information and photographs of all signs as the method for determining compliance with this metric.

Data Management:

To the extent practicable, all environmental and biological data generated during monitoring activities 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:

Through the FPL collaborative planning process, Alabama has identified an opportunity for a large-scale, multi-member, coordinated program in the Perdido Watershed. The States of Alabama and Florida share the watershed and the Perdido River as a border. Conservation work and habitat conservation benefit both states and provide future opportunities for additional collaboration around potential projects such as the expansion of the Perdido Canoe Trail and additional water quality and habitat restoration activities throughout the watershed. The State of Alabama, via the Mobile Bay National Estuary Program, has funded the development of a Perdido watershed management plan. The Pensacola and Perdido Bay Estuary program in Florida will also work to identify priority conservation activities in the watershed. This proposed project supports existing conservation efforts and can anchor future projects throughout the watershed due to the project's central location in the watershed.

Public Engagement, Outreach, and Education:

Public comments received at the Alabama Restoration Summit (November 2018) as well as public meetings for the Council framework indicated broad support for work in the watershed. A recent (September 2019) NRDA public meeting in Alabama featured a different proposed acquisition in the Perdido Watershed, and public support for that project and projects in the Perdido watershed more generally received positive comments. Excerpt from recent (Sept 2019) public comment received on a similar project proposed in the Perdido Watershed: "You have seen me before and I'm from Florida but we share a watershed. We share a couple. And I can't thank you enough from the bottom of my heart for including the Molpus Tract in this property… if we get people out in the water and in the resource, they will understand how restoring Longleaf impacts water quality which then flows into the bay which then restores the Gulf. And the only way we are going to do that is to give people access…"

Leveraging:

Funds: $5,075,840
Type: Adjoining
Status: Proposed
Source: NRDA AL TIG Draft Restoration Plan III
Source Type: Other
Description: The DWH NRDA AL TIG recently published Draft Restoration Plan III, which proposes two projects in the Perdido Watershed: the acquisition of a large tract of land for conservation (MOLPUS Tract) and recreational access and a public access and shoreline protection project in Perdido Beach, AL.

Funds: $3,000,000.00
Type: Building on Others
Status: Received
Source: NFWF-GEBF, RESTORE Bucket 2

Source Type: Other
Description: In the 2015 Initial FPL, the Council funded the development of watershed plans for this geographic area, the establishment of an estuary program, and the implementation of submerged aquatic vegetation (SAV) restoration and monitoring. Investments in the Perdido River and Bay area have also been made by other federal, state, and non-profit organizations. For example, projects have been funded to restore dune habitat and to construct and enhance artificial reef habitat in waters offshore of Perdido Bay, through DWH NRDA (DWH NRDA 2015, DWH NRDA 2016b) and NFWF GEBF respectively.

Environmental Compliance:
The FPL Category 1 portion of this proposal involves only planning actions that 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). The implementation component is currently proposed for FPL Category 2. Alabama intends to work with other members of the Council in an effort to move some or all of the implementation component into FPL Category 1 prior to a Council vote on the final FPL. As was done in the Initial FPL (FPL 1), this could involve the use of a federal member NEPA Categorical Exclusion, consistent with the Council's NEPA Procedures. Under such a scenario, the final FPL would provide the environmental compliance documentation needed to classify portions of the implementation components as Category 1.

Budget

Project Budget Narrative:
A total of $28,000,000 is being requested from FPL 3a to fund the acquisition and management of approximately 10,000-12,000 acres in the Perdido watershed. The funds being requested are broken out into Category 1 planning and Category 2 implementation activities.
Approximately 5% of the funds will be attributed to Category 1 planning funds. Planning activities will include staff time for grant management and project oversight. An estimated 86% of this request is for Category 2 project implementation. These funds will be allocated to acquisition and due diligence, staff time for stewardship activities, travel, and equipment and supplies.
An estimated 5% is being requested for project management activities. An estimated 0.2% is being requested for reporting on monitoring and adaptive management activities, and .05% is being requested for data management activities. 3.75% of funds are being requested for contingency planning.

Total FPL 3 Project/Program Budget Request: $28,000,000.00

Estimated Percent Monitoring and Adaptive Management: 0.2 %
Estimated Percent Planning: 5 %
Estimated Percent Implementation: 86 %
Estimated Percent Project Management: 5 %
Estimated Percent Data Management: 0.05 %
Estimated Percent Contingency: 3.75 %

Is the Project Scalable?:
Yes

If yes, provide a short description regarding scalability:
The number of years of active stewardship and management can be scaled down. However, given that management is a relatively small portion of the budget compared to acquisition costs, a longer period of management will provide a greater return on investment.

Environmental

Environmental Requirement	Has the Requirement Been Addressed?	Compliance Notes (e.g., title and date of document, permit number, weblink etc.)
National Environmental Policy Act	_X_ Yes ___ No _ N/A	Section 4(d)(3) of Council NEP Procedures.
Endangered Species Act	___ Yes ___ No **X** N/A	
National Historic Preservation Act	___ Yes ___ No **X** N/A	
Magnuson-Stevens Act	___ Yes ___ No **X** N/A	
Fish and Wildlife Coordination Act	___ Yes ___ No **X** N/A	
Coastal Zone Management Act	___ Yes ___ No **X** N/A	
Coastal Barrier Resources Act	___ Yes ___ No **X** N/A	
Farmland Protection Policy Act	___ Yes ___ No **X** N/A	
Clean Water Act Section 404	___ Yes ___ No **X** N/A	
River and Harbors Act Section 10	___ Yes ___ No **X** N/A	
Clean Water Act Section 401	___ Yes ___ No **X** N/A	
Marine Protection, Research and Sanctuaries Act	___ Yes ___ No **X** N/A	
Marine Mammal Protection Act	___ Yes ___ No **X** N/A	
National Marine Sanctuaries Act	___ Yes ___ No **X** N/A	
Migratory Bird Treaty Act	___ Yes ___ No **X** N/A	
Bald and Golden Eagle Protection Act	___ Yes ___ No **X** N/A	
Clean Air Act	___ Yes ___ No **X** N/A	

Maps, Charts, Figures

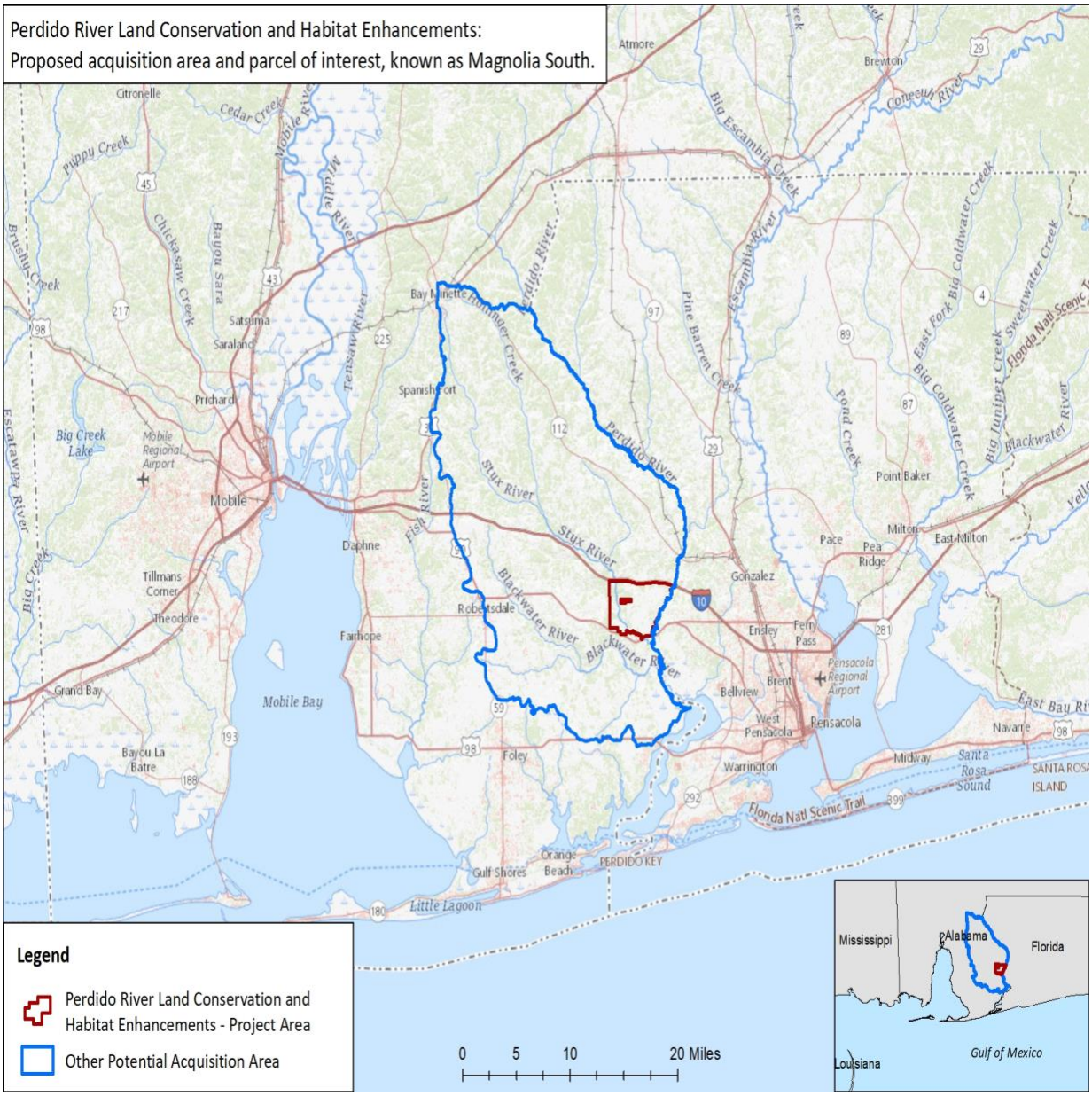

Figure 1: Map of the Perdido Bay watershed showing the proposed acquisition area and the parcel of interest, known as Magnolia South.

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FPL 3 Internal Staff Review

Project/Program	Perdido River Land Conservation and Habitat Enhancements		
Primary Reviewer	Jean Cowan	Sponsor	Alabama
EC Reviewer	Heather Young	Co-Sponsor	

1. Is/Are the selected Priority Criteria supported by information in the proposal?	Yes
Notes	AL selected criteria I and III (contained in existing regional plans); justified criteria I and II (large scale). It seems that they intended to choose large scale. Regardless of this error, the project meets more than one criteria and therefore meets requirements. This minor error was corrected in the revised proposal.
2. Does the proposal meet the RESTORE Act geographic eligibility requirement?	Yes
Notes	
3. Are the Comprehensive Plan primary goal and primary objective supported by information in the proposal?	Yes
Notes	
4. Planning Framework: If the proposal is designed to align with the Planning Framework, does the proposal support the selected priority approaches, priority techniques, and/or geographic area?	Yes
Notes	Land acquisition; habitat management and stewardship are consistent with the Planning Framework; also Perdido is an identified geographic area in the Planning Framework.
5. Does the proposal align with the applicable RESTORE Council definition of project or program?	Yes
Notes	This is a project.
6. Does the budget narrative adequately describe the costs associated with the proposed activity?	Yes
Notes	The budget narrative clearly shows the funds that would be requested for Cat 1 planning and Cat 2 implementation.
7. Have three external BAS reviews been completed and has the proposal sponsor provided their response?	Yes
Notes	Please see the Proposal Package for external BAS review comments, external reviews summary, Sponsor response to external reviews, and internal review panel summary documents.
8. Have appropriate metrics been proposed to support all primary and secondary goals?	Yes
Notes	
9. Environmental compliance: If FPL Category 1 has been selected for the implementation component of the project or program, does the proposal include environmental compliance documentation that fully supports the selection of Category 1?	N/A
Notes	Environmental compliance coordination is ongoing during FPL development. AL is working with DOI and Council staff to determine best route for NEPA compliance for potential inclusion of additional

FPL 3a BAS Reviews Summary – AL Perdido River Land Conservation and Habitat Enhancements

October 31, 2019

Generally, all external Best Available Science reviewers of the Perdido River Land Conservation and Habitat Enhancement were positive. Reviewers feel that the objectives of this proposal have been reasonably justified using peer reviewed/publicly available information (all reviewers). All reviewers agree that the literature sources used to support the proposal are accurately and completely cited and are represented in an unbiased manner. Reviewers 1 and 3 note that references are used appropriately and sufficiently support the rationale of the project, despite not including an extensive literature review.

All reviewers felt that the proposal provides reasonable justification that the proposed activity is based on science that maximizes the quality, objectivity, and integrity of information. The project has "a clear plan for measuring the success of their proposed activities, and they provide both quantitative and qualitative metrics for this purpose" (Reviewer 1). Reviewers 2 and 3 feel that the applicant provides reasonable justification that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for the project. The project addresses uncertainty and risk at 'higher levels', such as the potential need to redefine what land is acquired, and other risks such as those associated with restoration can be addressed later as they come to light (Reviewer 3). However, Reviewers 1 and 2 feel that more information is needed to fully document risks and uncertainties. Specifically, they are concerned that no pre-negotiation with landowners is mentioned, and that no alternative land has been identified or discussed in detail.

All reviewers feel that the proposal clearly defines the goals and objectives of the proposed project, and that the proposed methods are justified. Reviewer 1 thinks that, while the proposal has clear methods, the justifications for proposed activities and the assessment of cost-effectiveness are vague and need more information. The project has quantitative and qualitative metrics to measure success that align with the primary goals and objectives of the project (all reviewers). All reviewers agree that the proposal considers recent and relevant information when discussing science context.

The project identifies the likely environmental benefits of the proposed activity (all reviewers), with specific reference to environmental needs, as well as the relevance of the project's goals to meet these needs (Reviewer 3). The proposal also discusses the project's vulnerability to long-term environmental risks (all reviewers) including both land use/cover and climate change impacts (Reviewer 1).

While a discussion of past successes and failures is included in the proposal, Reviewer 1 feels that more information on past projects is needed, pointing out that while similar projects are listed the proposal does not provide any specific information on these success stories.

All reviewers agree that the program has identified monitoring, adaptive management, and data management strategies that will support project measures of success, and that best available science justification is provided.

Reviewer 3 provides the following final thoughts: “This proposal provides a nice overview of a sound and worthwhile project. There appears to be good rationale for all elements of the proposed work. What's more, this project incorporates and leverages existing programs in the same geographic area as the proposed project, strengthening ecological and socioeconomic benefits attributable to this work.”

Response to Reviewer Comments-- AL Perdido River Land Conservation and Habitat Enhancements

Reviewer 1

Comment: The proposal asks for purchasing a piece of land along the Perdido River. This will help habitat connectivity and by maintaining the land undeveloped it will also help in water quality of the river. Proposal uses the relevant literature to justify their case. Impressively they provide both national and local examples from the literature (it could have been more comprehensive though).
Response: We have added some additional examples from the literature (see edited proposal in track changes).

Comment: Relevant literature has been identified and cited in the proposal that clearly shows the benefits of maintaining large tracts of land in natural forms. However, literature review was not comprehensive. They picked only a few. Having said that literature is consistent in their finding. Therefore, even though a small portion of the literature has been cited, I consider it sufficient for the purpose of this proposal.
Response: We have added some additional examples from the literature (see edited proposal in track changes).

Comment: The proposal considers the risks and uncertainties in their proposed activities. Although land acquisition can be considered a low-risk method to preserve and protect critical habitats, it involves rather a big risk in being unable to acquire the targeted land. The PI acknowledges this fact and state that if this happens they will look for alternative land with similar characteristics. I believe this is the biggest uncertainty in this proposal.
Response: Additional information regarding landowner conversations and potential alternative parcels has been added to the proposal in track changes.

Comment:
Land acquisition is relatively a low-risk approach to preserve and protect critical habitats. However, there is no guarantee they will be able to convince the land owners. No pre-negotiation has been mentioned. Applicant mentions if the land acquisition fails they will look for alternative land in the vicinity. This is a big uncertainty. Having mapped those alternative land would have been very beneficial. In the end, one cannot randomly buy land. Benefits will differ by land, a systematic approach in targeting land is needed.

Response: Additional information regarding landowner conversations and potential alternative parcels has been added to the proposal in track changes.

Comment: The proposal provided clear description of the proposed methods. However, the justifications to the their proposed activities and whether they better or cost-effective is vague.
Response: As coastal development pressure increases, the need to preserve species and habitats is likely to increase. Acquiring lands for conservation and management purposes is generally accepted as a cost-effective method to maintain and improve ecosystem form and function. Although in some cases, the use of conservation easements may be less expensive in the short-term, fee simple acquisition provides manager the opportunity to conduct restoration activities on the site that could be expected to provide additional habitat and species benefits.
The development of a management plan prior to implementation of stewardship activities will allow restoration managers to identify, prioritize and plan activities that will be most effective at achieving

desired habitat goals in the most cost-effective manner possible. Additional citations discussing benefits of the methods have been added to proposal.

Comment: They acknowledge the risk for not being able to acquire the land and say they will consider alternative lands. However, no information or background information was provided about their plan B.
Response: Additional information regarding landowner conversations and potential alternative parcels has been added to the proposal in track changes.
Comment: The proposal lists several similar land adjacent to the proposed land (The Perdido Wildlife Management Area is located to the north, and Forever Wild Land Trust holdings as well as the Lillian Swamp Mitigation Bank are to the south). However, it does not provide any specific information about their success stories.
Response: Additional information regarding where to secure more information on existing parcels under conservation management in the Perdido Watershed has been added in track changes to the proposal.

Reviewer 2
Comment: It appears that the acquisition of the necessary land is surrounded by some uncertainty. Details on alternatives are lacking.
Response: Additional information regarding landowner conversations and potential alternative parcels has been added to the proposal in track changes.

Comment:
The potential that the acquisition of the necessary land may fail is not addressed in sufficient details, e.g., description of other tracts that would deliver similar benefits.
Response: Additional information regarding landowner conversations and potential alternative parcels has been added to the proposal in track changes.

Reviewer 3
Comment: This proposal, while citing literature does not go too deep with numerous references. Rather, references are used, as they should be, to support rationale and to supplement existing discussion.
Response: Thank you.

FPL 3a Internal Best Available Science Review Panel Summary

On Thursday, November 7, 2019 the RESTORE Council convened an internal Best Available Science (BAS) review panel. The purpose of this internal panel was to use Council member-agency expertise to address external BAS review comments, and potentially identify project/program synergies not identified prior to proposal submission. The ultimate goal of the panel was to provide Council members with substantive best available science content to inform their decision-making.

The internal panel was convened via webinar with representatives from each of the Council's eleven member agencies present. Each BAS Panel member was provided the following:

1) Full FPL 3a proposals
2) 3 external BAS reviews for each proposal
3) Summary of external BAS reviews for each proposal
4) Proposal Sponsor's response to the BAS reviews summary

Proposal sponsors provided a brief synopsis of their proposal to the panel, a summary of comments made in external reviews, and discussed their proposed response to the external reviews. Council staff then solicited feedback from the panel. The proceedings of the meeting are summarized below.

LA River Reintroduction into Maurepas Swamp Proposal

Panel comments on Sponsor response to external BAS comments:

Mitigation of risk: Reviewers 1 and 3 comment than mitigation strategies for the identified risks are not discussed apart from stating that risks will be addressed in the adaptive management plan -

- The panel agrees that Louisiana has appropriately addressed this comment.

Project timeline: Reviewer 1 confusion about the timeline of the project, as the project duration is listed as 8 years, but elsewhere in the proposal the project lifespan is described as 50 years -

- The panel agrees that Louisiana has appropriately addressed this comment.

Size and accretion: Reviewer 3 comment that the size of the proposed diversion (2000 cfs) will be too small to influence the entire Maurepas sub-basin (Schaffer et al. 2016) -

- The panel agrees that Louisiana has appropriately addressed this comment.

Operations: Reviewer 3 comment that the proposed diversion period of operation is only half a year which Shaffer et al. (2016) state "may be highly beneficial during times of severe drought" but not enough to restore the swamp -

- The panel agrees that Louisiana has appropriately addressed this comment.

Metrics and Statistical analysis: Reviewer 3 comment that the monitoring strategy is general and does not clearly tie to measures of success -

- It was recommended that although ecosystem responses may continue past the 5 years of monitoring, modeling may be useful to provide longer-term forecasts of likely outcomes.
- The panel agrees that Louisiana has appropriately addressed this comment.

Peer Reviewed Literature: Reviewer 3 comment that 3 of 5 peer reviewed papers referenced include Shaffer as the primary or secondary author, while all other references are unrefereed CPRA, EPA, NOAA, USFWS reports -

- The panel agrees that Louisiana has appropriately addressed this comment.

Prior Experience: Reviewer 2 note that there is no evaluation of past successes or failures (though it is informed by past work in the region) -

- The panel agrees that Louisiana has appropriately addressed this comment.

Sub-basin impact: Reviewer 3 comment that the health and state of the larger swamp sub-basin may impact success in the smaller target area -

- The panel agrees that Louisiana has appropriately addressed this comment.

Other reviewer comments: N/A

Panel comments on existing or future synergies with proposed activity:

CPRA highlighted the other restoration activities in the area including river reintroduction projects upriver at Union and downriver to address the Maurepas landbridge area; the Amite River diversion canal; gapping the south bank (CWPPRA); Maurepas Swamp reforestation (Lake Pontchartrain Basin Foundation); and conservation efforts (Coastal Forest Conservation Initiative).

AL Perdido River Land Conservation and Habitat Enhancements Proposal

Panel comments on Sponsor response to external BAS comments:

Peer reviewed literature: Reviewers 1 and 3 note that a comprehensive literature review is not included, though references are used appropriately and sufficiently support the rationale of the project -

- The panel agrees that Alabama has appropriately addressed this comment.

Risk and uncertainties around land acquisition: Reviewers 1 and 2 comment that no pre-negotiation has been mentioned; if the land acquisition fails they will look for alternative land in the vicinity -

- The panel agrees that Alabama has appropriately addressed this comment.

Justification of activities: Reviewer 1 comment that, while the proposal has clear methods, the justifications for proposed activities and the assessment of cost-effectiveness are vague and need more information -

- The panel agrees that Alabama has appropriately addressed this comment.

Previous success of similar land acquisition and habitat enhancement activities: Reviewer 1 comment that more information on past projects is needed, pointing out that while similar projects are listed the proposal, it does not provide any specific information on these success stories -

- It was suggested that it may be helpful to provide a map of synergistic projects.
- The panel agrees that Alabama has appropriately addressed this comment.

Other reviewer comments: N/A

Panel comments on existing or future synergies with proposed activity:
Alabama highlighted additional restoration and conservation activities taking place in the Perdido watershed. Building on other good work in the watershed is a priority for AL, and they may consider decision support tools, such as the Council funded Strategic Conservation Assessment tool, in identifying activities in the watershed moving forward.

Florida also highlighted synergistic activities in the area, including the Florida Trustee Implementation Group's recently approved Perdido River Paddle Trail, which has several recreational sites proposed directly across the river from the proposed Alabama acquisition parcel. FPL 3b may afford the opportunity for Florida and Alabama to collaborate on additional land conservation and habitat enhancement opportunities in this watershed.

SCIENCE EVALUATION

Bucket 2 Comprehensive Plan Component

PROPOSAL TITLE

Perdido River Land Conservation and Habitat Enhancements

LOCATION (IF APPLICABLE)

Perdido Watershed, AL

COUNCIL MEMBER BUREAU OR AGENCY

Alabama

TYPE OF FUNDING REQUESTED (Planning, Implementation, Planning/Implementation)

Planning/Implementation

REVIEWED BY:

Reviewer 1

DATE:

10/27/2019

Best Available Science:

These 4 factors/elements help frame the reviewers answers to A, B and C found in next section:

1. Has the proposal objectives, including proposed methods, been justified using peer reviewed and/or publicly available information?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

The proposal asks for purchasing a piece of land along the Perdido River. This will help habitat connectivity and by maintaining the land undeveloped it will also help in water quality of the river. Proposal uses the relevant literature to justify their case. Impressively they provide both national and local examples from the literature (it could have been more comprehensive though).

2. If information supporting the proposal does not directly pertain to the Gulf Coast region, are the proposal's methods reasonably supported and adaptable to that geographic area?

☐ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

N/A. The information is applicable to the Gulf Coast region of Alabama. Since the land is adjacent to the Perdido River (which is the border between FL and AL), it is also applicable to Gulf Coast Region of Florida.

3. Are the literature sources used to support the proposal accurately and completely cited? Are the literature sources represented in a fair and unbiased manor?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

Relevant literature has been identified and cited in the proposal that clearly shows the benefits of maintaining large tracts of land in natural forms. However, literature review was not comprehensive. They picked only a few. Having said that literature is consistent in their finding. Therefore, even though a small portion of the literature has been cited, I consider it sufficient for the purpose of this proposal.

4. Does the proposal evaluate uncertainties and risks in achieving its objectives over time? (e.g., is there an uncertainty or risk in the near- and/or long-term that the project/program will be obsolete or not function as planned?)

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

The proposal considers the risks and uncertainties in their proposed activities. Although land acquisition can be considered a low-risk method to preserve and protect critical habitats, it involves rather a big risk in being unable to acquire the targeted land. The PI acknowledges this fact and state that if this happens they will look for alternative land with similar characteristics. I believe this is the biggest uncertainty in this proposal.

Based on the answers to the previous 4 questions, and *giving deference to the sponsor to provide within reason the use of best available science,* the following three questions can be answered:

A. Has the applicant provided reasonable justification that the proposal is based on science that uses peer- reviewed and publicly available data?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments:

The applicant referred to some highly relevant literature (e.g. Baldera et. al 2005, Wang and Kalin 2018), but it is not comprehensive. They also frequently referred to the publicly available report NWFWMD 2017b. Review of this document revealed that it was prepared by qualified professionals using best available science from the literature.

B. Has the applicant provided reasonable justification that the proposal is based on science that maximizes the quality, objectivity, and integrity of information (including, as applicable, statistical information)?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments:

The applicant justifies the benefits of the land acquisition and its management by citing few but highly relevant literature. They have a clear plan for measuring the success of their proposed activities, and they provide both quantitative and qualitative metrics for this purpose.

C. Has the applicant provided reasonable justification that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for such projects/programs?

☐ YES ☐ NO ☑ NEED MORE INFORMATION

Comments:

Land acquisition is relatively a low-risk approach to preserve and protect critical habitats. However, there is no guarantee they will be able to convince the land owners. No pre-negotiation has been mentioned. Applicant mentions if the land acquisition fails they will look for alternative land in the vicinity. This is a big uncertainty. Having mapped those alternative land would have been very beneficial. In the end, one cannot randomly buy land. Benefits will differ by land, a systematic approach in targeting land is needed.

Science Context Evaluation

A. Has the project/program sponsor or project partners demonstrated experience in implementing a project/program similar to the one being proposed?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

The acquired land will be owned and managed by the Alabama Department of Conservation and Natural Resources (ADCNR). They have the expertise and experience for this.

B. Does the project/program have clearly defined goals objectives?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

The project clearly defined their goals objectives. They divided them into 6 actionable activities.

C. Has the proposal provided a clear description of the methods proposed, and appropriate justification for why the method is being selected (e.g., scientifically sound; cost-effectiveness)?

( ) YES ( ) NO (●) NEED MORE INFORMATION

Comments:

The proposal provided clear description of the proposed methods. However, the justifications to the their proposed activities and whether they better or cost-effective is vague.

D. Does the project/program identify the likely environmental benefits of the proposed activity? Where applicable, does the application discuss those benefits in reference to one or more underlying environmental stressors identified by best available science and/or regional plans?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

The proposal does a good job in listing the potential environmental benefits (e.g. load reduction, reduced land fragmentation, etc.).

E. Does the project/program have measures of success (i.e., metrics) that align with the primary Comprehensive Plan goal(s)/objectives? (Captures the statistical information requirement as defined by RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

The proposal lists several impressive list of quantitative and qualitative metrics to measure success of their activities.

F. Does the proposal discuss the project/program's vulnerability to potential long-term environmental risks (i.e., climate, pollution, changing land use)? (Captures risk measures as defined under best available science by the RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

They address both land use/cover and climate change impacts. They actually refer to a recent study on this topic (Wang and Kalin 2018) which studied land use/cover and climate change effects on water quality in the focus area.

G. Does the project/program consider other applicable short-term implementation risks and scientific uncertainties? Such risks may include the potential for unanticipated adverse environmental and/or socio-economic impacts from project implementation. Is there a mitigation plan in place to address these risks? Any relevant scientific uncertainties and/or data gaps should also be discussed. (Captures risk measures as defined under best available science by the RESTORE Act)

( ) YES ( ) NO (●) NEED MORE INFORMATION

Comments:

They acknowledge the risk for not being able to acquire the land and say they will consider alternative lands. However, no information or background information was provided about their plan B.

H. Does the project/program consider recent and/or relevant information in discussing the elements above?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

I. Has the project/program evaluated past successes and failures of similar efforts? (Captures the communication of risks and uncertainties in the scientific basis for such projects as defined by the RESTORE Act)

( ) YES ( ) NO (●) NEED MORE INFORMATION

Comments:

The proposal lists several similar land adjacent to the proposed land (The Perdido Wildlife Management Area is located to the north, and Forever Wild Land Trust holdings as well as the Lillian Swamp Mitigation Bank are to the south). However, it does not provide any specific information about their success stories.

J. Has the project/program identified a monitoring and data management strategy that will support project measures of success (i.e., metrics). If so, is appropriate best available science justification provided? If applicable, how is adaptive management informed by the performance criteria? (Captures statistical information requirement a defined by the RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

The proposal provides monitoring and adaptive management strategies. It also provides a data management plan.

Please summarize any additional information needed below:

SCIENCE EVALUATION

Bucket 2 Comprehensive Plan Component

PROPOSAL TITLE

Perdido River Land Conservation and Habitat Enhancements

LOCATION (IF APPLICABLE)

Perdido Watershed, AL

COUNCIL MEMBER BUREAU OR AGENCY

Alabama

TYPE OF FUNDING REQUESTED (Planning, Implementation, Planning/Implementation)

Planning/Implementation

REVIEWED BY:

Reviewer 2

DATE:

10/27/2019

Best Available Science:

These 4 factors/elements help frame the reviewers answers to A, B and C found in next section:

1. Has the proposal objectives, including proposed methods, been justified using peer reviewed and/or publicly available information?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

2. If information supporting the proposal does not directly pertain to the Gulf Coast region, are the proposal's methods reasonably supported and adaptable to that geographic area?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

3. Are the literature sources used to support the proposal accurately and completely cited? Are the literature sources represented in a fair and unbiased manor?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

4. Does the proposal evaluate uncertainties and risks in achieving its objectives over time? (e.g., is there an uncertainty or risk in the near- and/or long-term that the project/program will be obsolete or not function as planned?)

☐ YES ☑ NO ☐ NEED MORE INFORMATION

Comments

It appears that the acquisition of the necessary land is surrounded by some uncertainty. Details on alternatives are lacking.

Based on the answers to the previous 4 questions, and *giving deference to the sponsor to provide within reason the use of best available science,* the following three questions can be answered:

A. Has the applicant provided reasonable justification that the proposal is based on science that uses peer- reviewed and publicly available data?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments:

B. Has the applicant provided reasonable justification that the proposal is based on science that maximizes the quality, objectivity, and integrity of information (including, as applicable, statistical information)?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments:

C. Has the applicant provided reasonable justification that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for such projects/programs?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments:

Science Context Evaluation

A. Has the project/program sponsor or project partners demonstrated experience in implementing a project/program similar to the one being proposed?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

B. Does the project/program have clearly defined goals objectives?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

C. Has the proposal provided a clear description of the methods proposed, and appropriate justification for why the method is being selected (e.g., scientifically sound; cost-effectiveness)?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

D. Does the project/program identify the likely environmental benefits of the proposed activity? Where applicable, does the application discuss those benefits in reference to one or more underlying environmental stressors identified by best available science and/or regional plans?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

E. Does the project/program have measures of success (i.e., metrics) that align with the primary Comprehensive Plan goal(s)/objectives? (Captures the statistical information requirement as defined by RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

F. Does the proposal discuss the project/program's vulnerability to potential long-term environmental risks (i.e., climate, pollution, changing land use)? (Captures risk measures as defined under best available science by the RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

G. Does the project/program consider other applicable short-term implementation risks and scientific uncertainties? Such risks may include the potential for unanticipated adverse environmental and/or socio-economic impacts from project implementation. Is there a mitigation plan in place to address these risks? Any relevant scientific uncertainties and/or data gaps should also be discussed. (Captures risk measures as defined under best available science by the RESTORE Act)

( ) YES (●) NO ( ) NEED MORE INFORMATION

Comments:

The potential that the acquisition of the necessary land may fail is not addressed in sufficient details, e.g., description of other tracts that would deliver similar benefits.

H. Does the project/program consider recent and/or relevant information in discussing the elements above?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

I. Has the project/program evaluated past successes and failures of similar efforts? (Captures the communication of risks and uncertainties in the scientific basis for such projects as defined by the RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

J. Has the project/program identified a monitoring and data management strategy that will support project measures of success (i.e., metrics). If so, is appropriate best available science justification provided? If applicable, how is adaptive management informed by the performance criteria? (Captures statistical information requirement a defined by the RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

Please summarize any additional information needed below:

SCIENCE EVALUATION

Bucket 2 Comprehensive Plan Component

PROPOSAL TITLE

Perdido River Land Conservation and Habitat Enhancements

LOCATION (IF APPLICABLE)

Perdido Watershed, AL

COUNCIL MEMBER BUREAU OR AGENCY

Alabama

TYPE OF FUNDING REQUESTED (Planning, Implementation, Planning/Implementation)

Planning/Implementation

REVIEWED BY:

Reviewer 3

DATE:

October 28, 2019

Best Available Science:

These 4 factors/elements help frame the reviewers answers to A, B and C found in next section:

1. Has the proposal objectives, including proposed methods, been justified using peer reviewed and/or publicly available information?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

This proposal is well-written and provides a nice overview of the projected project. References are made throughout the document with supporting literature available in a supplemental bibliography. these references reflect a variety of sources including reports, primary literature and other. Project integrates a variety of activity including educational and conservation elements.

2. If information supporting the proposal does not directly pertain to the Gulf Coast region, are the proposal's methods reasonably supported and adaptable to that geographic area?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

Proposal is very relevant to the Gulf Coast region reflecting ecosystem conservation and restoration along a major riverine system that feeds the Gulf.

3. Are the literature sources used to support the proposal accurately and completely cited? Are the literature sources represented in a fair and unbiased manor?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

This proposal, while citing literature does not go too deep with numerous references. Rather, references are used, as they should be, to support rationale and to supplement existing discussion.

4. Does the proposal evaluate uncertainties and risks in achieving its objectives over time? (e.g., is there an uncertainty or risk in the near- and/or long-term that the project/program will be obsolete or not function as planned?)

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments

There is always uncertainty in project planning and implementation. In the case of this proposal there is long-term restoration activities planned. Planting and restoration of proposed sites has potential to experience hiccups and delays. Other potential limitations can include likelihood of acquiring all lands of interest and changes in these lands and factors that influence them. These effects are all accounted for in this proposal.

Based on the answers to the previous 4 questions, and *giving deference to the sponsor to provide within reason the use of best available science,* the following three questions can be answered:

A. Has the applicant provided reasonable justification that the proposal is based on science that uses peer- reviewed and publicly available data?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments:

Proposal incorporates and leverages on existing activities and acquisitions. Elements of this project appear to be adaptive and can me reworked depending on limitations or unanticipated changes. References to specific studies and findings support decisions and rationale for this project such as area to be conserved and what can be restored.

B. Has the applicant provided reasonable justification that the proposal is based on science that maximizes the quality, objectivity, and integrity of information (including, as applicable, statistical information)?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments:

As much as possible give the objectives of this project it is centered in available science and with understanding of best conservation activities for the proposed geographic area. In the later, it is much harder to restore than it is to conserve. The main focus of this project is conserving an area that has not been heavily degraded. Programs for implementation and key factors such as data management are built into this proposed program.

C. Has the applicant provided reasonable justification that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for such projects/programs?

☑ YES ☐ NO ☐ NEED MORE INFORMATION

Comments:

In as much as possible I believe this proposal includes an evaluation of risk. There are multiple levels of risk in any project. In this case, the uncertainty and risk is addressed at 'higher levels' such as potential need to redefine what land is acquired. Risks at 'lower levels' such as those inherent to resstoration (eg, through prescribed fire) can be addressed as that element of this project comes to light.

Science Context Evaluation

A. Has the project/program sponsor or project partners demonstrated experience in implementing a project/program similar to the one being proposed?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

The project sponsor appears to have much experience implementing similar projects and can draw upon/leverage elements of this infrastructure and experience towards successfully completing this project.

B. Does the project/program have clearly defined goals objectives?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

Yes, these goals are specific to restoration and conservation of a large area of land, making portions of this land accessible to the public. Acquisition and conservation of this land will enhance the ecological and economic value of the immediate area, while also providing long-term benefits through natural resources and other features outside of the immediate project zone.

C. Has the proposal provided a clear description of the methods proposed, and appropriate justification for why the method is being selected (e.g., scientifically sound; cost-effectiveness)?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

Yes, a breakdown of cost and proportion of cost to support each project element is provided. Activities to each project objective are defined with some activities to be weighted on public perception and interest.

D. Does the project/program identify the likely environmental benefits of the proposed activity? Where applicable, does the application discuss those benefits in reference to one or more underlying environmental stressors identified by best available science and/or regional plans?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

Yes, benefits of the proposed activities are provided with specific reference to needs and the relevance of the project's goals to meeting these needs.

E. Does the project/program have measures of success (i.e., metrics) that align with the primary Comprehensive Plan goal(s)/objectives? (Captures the statistical information requirement as defined by RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

While not provided explicitly in all cases, measures of success to each of the project's primary objectives are provided. These goals include large-scale conservation of xx acres, to construction and placement of educational signs and kiosks.

F. Does the proposal discuss the project/program's vulnerability to potential long-term environmental risks (i.e., climate, pollution, changing land use)? (Captures risk measures as defined under best available science by the RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

Particular reference is given to potential environmental changes with specificity to restoring ecosystems and their functions, as well as what materials may be sequestered or released during project implementation and after the project is completed.

G. Does the project/program consider other applicable short-term implementation risks and scientific uncertainties? Such risks may include the potential for unanticipated adverse environmental and/or socio-economic impacts from project implementation. Is there a mitigation plan in place to address these risks? Any relevant scientific uncertainties and/or data gaps should also be discussed. (Captures risk measures as defined under best available science by the RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

Yes, some of the short-term impacts of this project are discussed yet the breadth of these is more than can be included in a proposal of this length. In some aspects these effects are referenced within other supporting material that can be reviewed outside the current proposal.

H. Does the project/program consider recent and/or relevant information in discussing the elements above?

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

I. Has the project/program evaluated past successes and failures of similar efforts? (Captures the communication of risks and uncertainties in the scientific basis for such projects as defined by the RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

I believe these risks are incorporated within this project proposal. It is clearly evident that the program applying for this support has much experience implementing similar projects. To this, gained knowledge may not be directly referenced within this proposal but the weight of that experience is clearly evident.

J. Has the project/program identified a monitoring and data management strategy that will support project measures of success (i.e., metrics). If so, is appropriate best available science justification provided? If applicable, how is adaptive management informed by the performance criteria? (Captures statistical information requirement a defined by the RESTORE Act)

(●) YES ( ) NO ( ) NEED MORE INFORMATION

Comments:

Yes. A data management plan is provided. This plan incorporates long-term data storage as well as plans to make data available institutionally and publicly. While the various elements of the data plan could be expanded, the material provided in this proposal certainly covers what will be handled and how.

Please summarize any additional information needed below:

This proposal provides a nice overview of a sound and worthwhile project. There appears to be good rationale for all elements of the proposed work. What's more this project incorporates and leverages existing programs in the same geographic area as the proposed project, strengthening ecological and socioeconomic benefits attributable to this work.

RESTORE Council FPL 3 Proposal Document

General Information

Title:
Perdido River Land Conservation and Habitat Enhancements

Project Abstract:
The proposed project consists of the acquisition and management of approximately 10,000-12,000 acres in the Perdido Watershed, located in Baldwin County, AL. One potential parcel identified for acquisition is known as the Magnolia South Tract. At 11,434 acres, this potential parcel is adjacent to existing conservation lands in public ownership in the Perdido Watershed, with extensive frontage along the Perdido River. This, or other suitable parcel(s), would supplement an existing 17,337 acres in public ownership in the watershed in Alabama, and roughly 12,400 acres in public ownership in the Florida portion of the watershed. Upon acquisition, the Alabama Department of Conservation and Natural Resources (ADCNR) would 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. Acquired land would become part of the Perdido Wildlife Management Area and be accessible to the public for recreational use.

FPL Category: Cat1: Planning/ Cat2: Implementation

Activity Type: Project

Program: N/A

Co-sponsoring Agency(ies): N/A

Is this a construction project?
Yes

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.
(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.

Priority Criteria Justification:
Located in Southern Alabama (70% of the watershed) and Northwest Florida (30% of the watershed), the Perdido Watershed covers approximately 1,100 sq. miles (NWFWMD 2017b). The proposed project would increase habitat connectivity, thus helping to maintain genetic diversity for target species, and maintain key ecological processes such as succession, migration and the ability of a species to meet its habitat requirements (Baldera et al. 2005). A recent 18-year study in a pine savanna ecosystem found that by increasing habitat connectivity and reducing fragmentation, biodiversity increased by 14% in connected habitats versus fragmented habitats, underscoring the

critical role that large-size and connected habitats play in preserving and enhancing biodiversity (Damschen et al. 2019). Projects that enhance habitat connectivity will contribute greatly to the restoration and protection of the target species and habitats; improving habitat connectivity in the watershed will provide large-scale benefits relative to the size of the watershed (PC1).
Habitat loss, degradation and fragmentation threaten species worldwide, and contribute to declines in biodiversity (Weigand et al., 2005). Undeveloped areas in the Perdido watershed act as natural filters, protecting water quality of coastal waters that sustain wildlife such as recreationally and commercially important fish and oyster resources (NWFWMD 2017b). 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. The proposed acquisition would increase the current acreage of property in state ownership in the Alabama portion of the watershed from approximately 17,000 to over 28,000, significantly reducing the development potential in the watershed. The acreage of the proposed acquisition is large-scale in nature, especially when considered in the context of the size of the watershed (PC3).

Project Duration (in years): 10

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:
N/A

PF Restoration Technique(s):
Land Acquisition; Habitat Management and Stewardship

Location

Location:
Proposed acquisition(s) and habitat management actions would be located within the Perdido Watershed near the Perdido River in Baldwin County, Alabama.

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

State(s):
Alabama

County/Parish(es):
AL - Baldwin

Congressional District(s):
AL - 1

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, designated as an outstanding Florida waterway (NWFWMD 2017b). The Perdido River provides most of Perdido Bay's freshwater. The watershed includes floodplain forests, hydric pine forests, longleaf pine forests, and freshwater wetlands.

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).

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 2017b). Land use conversion and urbanization have contributed to the loss of habitats, including 80 percent of historic seagrass habitats, and have impaired the water quality of waterbody segments in both Alabama and Florida (Kirschenfeld et al. 2007).

This project proposes to acquire and place into state conservation management approximately 10,000-12,000 acres in the Perdido Watershed. The parcel(s) contemplated are currently in silviculture. Upon acquisition, ADCNR would develop a management plan to identify and prioritize management and restoration activities, with an emphasis on enhancement and protection of gopher tortoise (Gopherus polyphemus) habitat. The proposed project contributes toward the Council's Comprehensive Plan goal to Restore and Conserve Habitat as the proposed project will result in the placement of several thousand acres of habitat into conservation (eliminating potential for future development). Management activities will contribute to the Council's goal of Replenishing and Protecting Living Coastal and Marine Resources through activities such as planting of native species and the enhancement of habitats to support native flora such as the longleaf pine (Pinus palustris) and fauna such as the gopher tortoise (Gopherus polyphemus), a keystone species in the longleaf ecosystem.

Alabama contemplates seven activities under this project with a total project cost of $28,000,000.

Activity 1. Acquire Magnolia South Tract (or other suitable parcel(s)) through fee-simple acquisition.

Stressors addressed by this activity include the potential for future impacts associated with development of the tract, water quality impacts associated with silviculture activities on the site, and habitat fragmentation. Related to a reduction in those stressors, environmental benefits include: increased habitat connectivity, improved water quality, and maintenance of pervious cover (prevented development).

Activity 2. Develop a management plan for acquired lands. The management plan will be based on/a supplement to the Alabama Forever Wild Land Trust Management Plan for Perdido Longleaf Hills Tract and Swift Addition.

Goal of the management plan: inventory, manage, enhance and protect the biodiversity of the

natural communities now on the acquired land and those which may naturally succeed the existing communities following habitat enhancement activities with an emphasis on those species found within the longleaf pine ecosystem.

This goal will be achieved via completion of the following items in the management plan:

a. Inventory the flora and faunal species and habitat characteristics of the tract;
b. Identify and prioritize habitat enhancement and management activities for the tract;
c. Identify management activities to provide for controlled public access to the tract consistent with the primary goal of the project to restore and enhance habitats;
d. Determine public recreation demand for use of the tract and formulate measures to accommodate the demand while providing full protection of the resource;

Activity 3. Conduct immediate management activities for security purposes, including protection of boundaries, marking property lines, construction of a barn for equipment storage and security, and installation of security gates .

Activity 4. Conduct habitat restoration activities, which could include the following:

a. Select, minimal thinning of existing forested areas to facilitate future management and restoration actions.
b. Conduct minimal hydrologic restoration activities to include the mitigation of impacts of ditches and/or roads that are interrupting sheet flow.
c. Prescribed burning and preparation of sites for burning, which could include vegetation management activities to reduce fuel load.
d. Invasive species removal.
e. Planting of native species including longleaf pine and groundcover species.
f. Implementation of management activities for priority species, including longleaf pine and gopher tortoise.

Stressors addressed by this activity include the potential reduction of water quality impacts associated with silviculture activities on the site, and habitat fragmentation, loss, and degradation. Related to a reduction in those stressors, environmental benefits include: increased habitat connectivity, enhanced habitat quality, improved water quality, and support of native species.

Activity 5. Conduct education and outreach activities including the erection of signage and an educational display about the Perdido Watershed and the Perdido Blueway Trail.

Activity 6. Identify and prioritize (in coordination with watershed stakeholders and entities) additional projects in the Perdido Watershed for funding in future FPLs that could further enhance habitat connectivity, improve water quality and/or facilitate the development of the assessment of restoration progress in the watershed.

Together, these activities meet the following Council Comprehensive Plan Objectives: Objective 1: Restore, Enhance and Protect Habitat—through acquisition of undeveloped forest and wetland areas, this project will serve to protect existing habitats from development pressure. Additionally, restoration and enhancement activities proposed will serve to enhance ecosystem form and function of both wetland and forest habitats. Secondary objective that this project addresses is: Objective 6: Promote Natural Resource Stewardship and Environmental Education. The project will enhance habitat for the gopher tortoise and other species that depend on the tortoise in its role as a keystone species. Additionally, Alabama proposes to incorporate education features on the property

including signage and an educational kiosk to support an increased understanding of the value of habitat conservation and how people can participate in conserving and protecting valuable habitats.

Timeline for completion is estimated to be up to ten years total. Acquisition activities would be complete by the end of Year 2, with immediate management activities (Activity 3) taking place upon completion of acquisition. The management plan would be completed in Year 2 and habitat restoration, enhancement and management activities would proceed in years 3-10.

Education and outreach partners potentially include the Pensacola and Perdido Bay Estuary Program, the State of Florida, and local non-governmental organizations active in the area such as The Nature Conservancy.

The Perdido geographic area was included in the RESTORE Council Planning Framework, and the proposed project is consistent with identified restoration approaches and techniques.

Proposed Methods :

Fee simple acquisition of these lands and ownership by the ADCNR is preferred over acquisition by conservation easement. These habitats typically require active management to maintain and improve habitat condition. Introduction of fire, restoration of hydrology where it has been altered by previous land use, and control of exotic and invasive species is often required, and a state or federal owner is more likely to invest the needed time and money to maintain this level of management. In addition, a public owner is generally in a better position to offer an appropriate level of public access to these special places for recreation and education.

Following acquisition, a management plan will be developed based on the existing Perdido WMA Management Plan (ADCNR 2012) that will identify and prioritize management and stewardship activities. The potential activities could include: (1) Select, minimal thinning of existing forested areas to facilitate future management and restoration actions; (2) Conduct minimal hydrologic restoration activities to include the mitigation of impacts of ditches and/or roads that are interrupting sheet flow; (3) Prescribed burning and preparation of sites for burning, which could include vegetation management activities to reduce fuel load; (4) Invasive species removal; (5) Planting of native species including longleaf pine and groundcover species; and (6) Implementation of management activities for priority species, including longleaf pine and gopher tortoise. These activities are proven to be effective in similar habitats and have been implemented successfully across the Southeastern United States. (Outcalt and Brockway, 2010; NRCS 2012; USFWS (N.D.).

Environmental Benefits:

This area of Baldwin County is rapidly urbanizing, with significant development pressures. Acquiring this property in the Perdido watershed can reduce the amount of land available for development and the associated ecosystem stressors that are the inevitable result of urbanization.

If successful, this acquisition, or acquisition of another suitable parcel with similar connectivity benefits would connect with public lands to the north and south. The Perdido Wildlife Management Area is located to the north, and Forever Wild Land Trust holdings as well as the Lillian Swamp Mitigation Bank are to the south. Additionally, this action would serve as a cornerstone for a broader ecosystem conservation and restoration effort where stressors affecting water quality and habitat quality and function could be addressed synergistically.

Upon acquisition and with subsequent management and stewardship, the overall project outcomes would be increased habitat connectivity and quality, enhanced recreational access, and increased acreage of land under conservation protection.

Metrics:

Metric Title: HC003 : Land acquisitions - Acres acquired in fee
Target: 10,000
Narrative: This metric aligns with Goal 1 of the Comprehensive Plan: Restore and Conserve Habitat. The purpose of the metric is to verify that acquisition has been completed, the performance measure will be an executed deed. Upon transfer of the parcel into ADCNR ownership, this metric will be complete. The outcome will be an increase in acres under conservation management in the Perdido Watershed.

Metric Title: HM006 : Improved management practices - Acres under improved management
Target: 10,000
Narrative: This metric aligns with Goal 1 of the Comprehensive Plan: Restore and Conserve Habitat. The purpose of the metric is to verify that the acreage acquired is being managed for conservation purposes. The performance measure will be an executed deed with appropriate conservation language. Additionally, ADCNR will provide an update annually on the total number of acres in active management and the types of activities conducted. The outcome will be an increase in acres under conservation management in the Perdido Watershed.

Metric Title: PRM003 : Management or Governance Planning - # plans developed
Target: 1
Narrative: This metric aligns with Goal 1 of the Comprehensive Plan: Restore and Conserve Habitat. The purpose of the metric is to verify that a management plan to guide habitat management activities has been developed. Upon completion, ADCNR will provide a copy of the Management Plan to the Council.

Metric Title: RES005 : Recreational improvements - # improvements to recreation infrastructure
Target: 4
Narrative: This metric aligns with Goal 1 of the Comprehensive Plan: Restore and Conserve Habitat and aligns with Objective 6: Promote Natural Resource Stewardship and Environmental Education. The target performance criteria for this project is the placement of 4 signs and 2 kiosks (2 signs at each kiosk and one stand alone sign) that provide information about the project and the Perdido Watershed. Successful completion of this metric will occur once signs and kiosks have been placed on site.

Risk and Uncertainties:

Given the potential development pressure for this riparian corridor, strategic land conservation and land-use management are low risk methods to mitigate impacts from future development. Uncertainties arise from the balance of providing adequate buffers from conservation lands protecting against the unknown future extent and location of urbanization impacts.

Additional risks include being unable to acquire the specific tracts currently contemplated. If negotiations with the seller are unsuccessful, Alabama would identify additional parcels with similar benefits in terms of habitat connectivity within the watershed.

Wang and Kalin (2018) examined different land use change scenarios in concert with projected climate change impacts in the Wolf Bay watershed (within the Perdido Watershed) related to changes in Total Suspended Solids (TSS), Total Nitrogen (TN), and Total Phosphorous (TP). Land use change would be expected to result in a decrease in TN as agricultural lands are converted to urban uses, but climate change is expected to increase precipitation and flows, which will impact pollution,

particularly in spring and fall. Overall, when considering both projected changes in land use as well as climate change, TSS and TP are expected to increase, while TN is expected to decrease. Overall increases in surface runoff and decreases in baseflows are also predicted. Projects like large-scale habitat acquisition and stewardship consider these projected land use changes. Additionally, project implementors will take into account future projected climate change scenarios when developing management actions. In particular, protecting riparian buffers to lower sediment loading could help offset these anticipated future impacts.

In general, land acquisition is a low-risk method to preserve and protect critical habitats. The stewardship activities being proposed are proven to be effective as well as cost-effective.

Monitoring and Adaptive Management:

Monitoring related to Metric 1 HC003: Land acquisition - Acres acquired in fee will take place immediately following acquisition of the parcel. Acres acquired will be verified by survey during the acquisition process, a standard procedure for evaluating area.

Monitoring related to Metric 2, HM006: Habitat management and stewardship - Acres under improved management will be monitored immediately following acquisition of the parcel. Area will be determined by habitat type via the use of aerial imagery, as discussed in DWH Trustees (2017). Results will be validated via ground truthing. Habitat management activities will be reported on an annual basis beginning in the year stewardship activities begin (estimated in Years 3-10). ADCNR will also provide information on the type and extent of measures implemented as well (e.g., X acres of prescribed burning, X number of native species planted).

Monitoring related to Metric 3, PRM003 will be complete when the management plan is developed, provided to Council staff, and made available publicly. This will likely take place in Year 2, though the timing could change based on acquisition time for the parcel.

Monitoring related to Metric 4, RES005 - Recreational improvements - # improvements to recreational infrastructure will take place following completion and erection of the signage. ADCNR will provide a summary of sign wording, location information and photographs of all signs as the method for determining compliance with this metric.

Data Management:

To the extent practicable, all environmental and biological data generated during monitoring activities 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:

Through the FPL collaborative planning process, Alabama has identified an opportunity for a large-scale, multi-member, coordinated program in the Perdido Watershed. The States of Alabama and

Florida share the watershed and the Perdido River as a border. Conservation work and habitat conservation benefit both states and provide future opportunities for additional collaboration around potential projects such as the expansion of the Perdido Canoe Trail and additional water quality and habitat restoration activities throughout the watershed. The State of Alabama, via the Mobile Bay National Estuary Program, has funded the development of a Perdido watershed management plan. The Pensacola and Perdido Bay Estuary program in Florida will also work to identify priority conservation activities in the watershed. This proposed project supports existing conservation efforts and can anchor future projects throughout the watershed due to the project's central location in the watershed.

Public Engagement, Outreach, and Education:

Public comments received at the Alabama Restoration Summit (November 2018) as well as public meetings for the Council framework indicated broad support for work in the watershed. A recent (September 2019) NRDA public meeting in Alabama featured a different proposed acquisition in the Perdido Watershed, and public support for that project and projects in the Perdido watershed more generally received positive comments. Excerpt from recent (Sept 2019) public comment received on a similar project proposed in the Perdido Watershed: "You have seen me before and I'm from Florida but we share a watershed. We share a couple. And I can't thank you enough from the bottom of my heart for including the Molpus Tract in this property… if we get people out in the water and in the resource, they will understand how restoring Longleaf impacts water quality which then flows into the bay which then restores the Gulf. And the only way we are going to do that is to give people access…"

Leveraging:

Funds: $5,075,840
Type: Adjoining
Status: Proposed
Source: NRDA AL TIG Draft Restoration Plan III
Source Type: Other
Description: The DWH NRDA AL TIG recently published Draft Restoration Plan III, which proposes two projects in the Perdido Watershed: the acquisition of a large tract of land for conservation (MOLPUS Tract) and recreational access and a public access and shoreline protection project in Perdido Beach, AL.

Funds: $3,000,000.00
Type: Building on Others
Status: Received
Source: NFWF-GEBF, RESTORE Bucket 2
Source Type: Other
Description: In the 2015 Initial FPL, the Council funded the development of watershed plans for this geographic area, the establishment of an estuary program, and the implementation of submerged aquatic vegetation (SAV) restoration and monitoring. Investments in the Perdido River and Bay area have also been made by other federal, state, and non-profit organizations. For example, projects have been funded to restore dune habitat and to construct and enhance artificial reef habitat in waters offshore of Perdido Bay, through DWH NRDA (DWH NRDA 2015, DWH NRDA 2016b) and NFWF GEBF respectively.

Environmental Compliance:

The FPL Category 1 portion of this proposal involves only planning actions that 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). The implementation component is currently proposed for FPL Category

2. Alabama intends to work with other members of the Council in an effort to move some or all of the implementation component into FPL Category 1 prior to a Council vote on the final FPL. As was done in the Initial FPL (FPL 1), this could involve the use of a federal member NEPA Categorical Exclusion, consistent with the Council's NEPA Procedures. Under such a scenario, the final FPL would provide the environmental compliance documentation needed to classify portions of the implementation components as Category 1.

Budget

Project Budget Narrative:
A total of $28,000,000 is being requested from FPL 3a to fund the acquisition and management of approximately 10,000-12,000 acres in the Perdido watershed. The funds being requested are broken out into Category 1 planning and Category 2 implementation activities.
Approximately 5% of the funds will be attributed to Category 1 planning funds. Planning activities will include staff time for grant management and project oversight. An estimated 86% of this request is for Category 2 project implementation. These funds will be allocated to acquisition and due diligence, staff time for stewardship activities, travel, and equipment and supplies.
An estimated 5% is being requested for project management activities. An estimated 0.2% is being requested for reporting on monitoring and adaptive management activities, and .05% is being requested for data management activities. 3.75% of funds are being requested for contingency planning.

Estimated Percent Monitoring and Adaptive Management: 0.2 %
Estimated Percent Planning: 5 %
Estimated Percent Implementation: 86 %
Estimated Percent Project Management: 5 %
Estimated Percent Data Management: 0.05 %
Estimated Percent Contingency: 3.75 %

Is the Project Scalable?
Yes

If yes, provide a short description regarding scalability.:
The number of years of active stewardship and management can be scaled down. However, given that management is a relatively small portion of the budget compared to acquisition costs, a longer period of management will provide a greater return on investment.

Environmental

Environmental Requirement	Has the Requirement Been Addressed?	Compliance Notes (e.g.,title and date of document, permit number, weblink etc.)
National Environmental Policy Act	_X_ Yes ___ No _ N/A	Section 4(d)(3) of Council NEPA Procedures.
Endangered Species Act	___ Yes ___ No **X** N/A	
National Historic Preservation Act	___ Yes ___ No **X** N/A	
Magnuson-Stevens Act	___ Yes ___ No **X** N/A	
Fish and Wildlife Coordination Act	___ Yes ___ No **X** N/A	
Coastal Zone Management Act	___ Yes ___ No **X** N/A	
Coastal Barrier Resources Act	___ Yes ___ No **X** N/A	
Farmland Protection Policy Act	___ Yes ___ No **X** N/A	
Clean Water Act Section 404	___ Yes ___ No **X** N/A	
River and Harbors Act Section 10	___ Yes ___ No **X** N/A	
Clean Water Act Section 401	___ Yes ___ No **X** N/A	
Marine Protection, Research and Sanctuaries Act	___ Yes ___ No **X** N/A	
Marine Mammal Protection Act	___ Yes ___ No **X** N/A	
National Marine Sanctuaries Act	___ Yes ___ No **X** N/A	
Migratory Bird Treaty Act	___ Yes ___ No **X** N/A	
Bald and Golden Eagle Protection Act	___ Yes ___ No **X** N/A	
Clean Air Act	___ Yes ___ No **X** N/A	

Maps, Charts, Figures

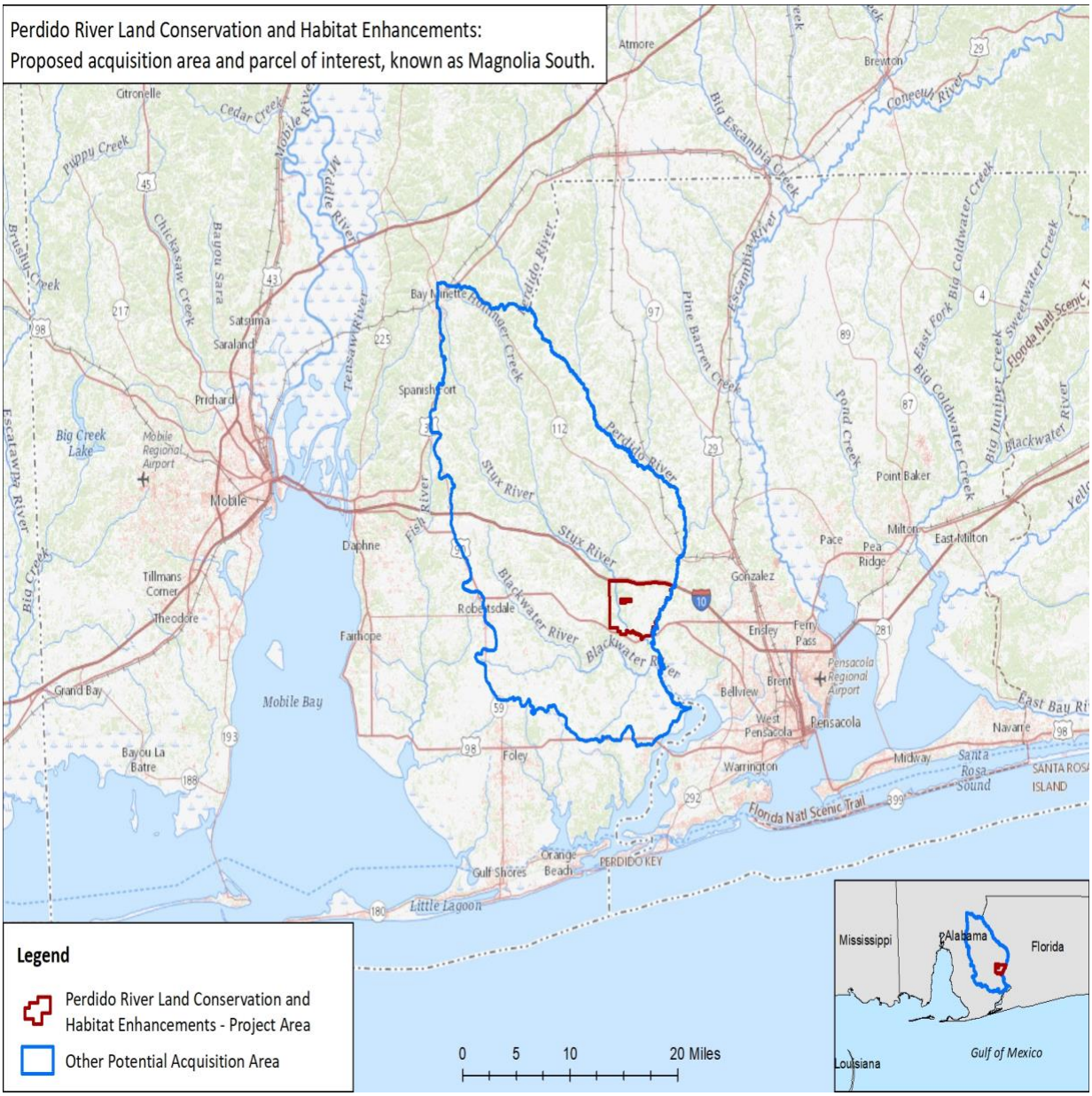

Figure 1: Map of the Perdido Bay watershed showing the proposed acquisition area and the parcel of interest, known as Magnolia South.

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