Coastal Alabama Regional Water Quality Program

RESTORE Council Proposal Document

General Information

Title:
Coastal Alabama Regional Water Quality Program

Project Abstract:
Alabama, through the Alabama Department of Conservation and Natural Resources (ADCNR), is requesting $8M in Council-Selected Restoration Component funding to continue the FPL 3b-funded Coastal Alabama Regional Water Quality Program. This request includes $2.4M in planning funds as Category 1, and $5.6M in implementation funds as an Category 2 priority for potential funding to continue to build the Water Quality program over the next 10 years. In addition, Alabama is requesting to utilize $1,500,000 in unspent funds associated with the FPL 3b project Perdido Watershed Water Quality Improvements and Restoration Assessment Program, and apply those savings to the Alabama 2026 FPL Coastal Alabama Regional Water Quality Program. The program will support the primary RESTORE Comprehensive Plan goal to restore water quality and quantity. The program and projects included for implementation may include, but are not limited to: planning-related work (e.g., project prioritization and selection, engineering and design, permitting and environmental compliance activities), construction of or upgrades to stormwater and wastewater management systems, low impact development, green infrastructure activities, and septic to sewer conversions. Planning activities will be conducted according to State and Federal engineering and design guidelines, environmental compliance, and construction standards. Utilizing the public engagement and project identification process established under the FPL3b Water Quality Program, ADCNR will select projects for Category 1 implementation; projects may be added during the life of the program. Category 2 workplans will also be considered. ADCNR works in partnership with local entities implementing water quality improvement projects in Coastal Alabama and stakeholders continue to prioritize water quality improvement as a basis for restoring the environment and economy of coastal Alabama.

FPL Category: Cat1: Planning/ Cat2: Implementation

Activity Type: Program

Program: Coastal Alabama Regional Water Quality Program

Co-sponsoring Agency(ies): N/A

Is this a construction project?:
Yes

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

Priority Criteria Justification:
Improving water quality is a foundational restoration action that will yield the greatest contributions to restoring and protecting coastal living and marine resources. Water quality is a pervasive concern across the Gulf Coast. Projects and programs that restore or improve water quality will contribute to overall ecosystem health of multiple coastal habitats and living marine resources in Alabama. Sediments can be reduced by installation of stormwater infrastructure, living shorelines, retention ponds and upland stream restoration. Nutrient and fecal bacterial entering coastal waters can be reduced by repairs, upgrades, and improvements to sewer systems including backup energy for pumps during storms. Septic to sewer projects and improvements to treatment facilities in locations along the Alabama Gulf Coast will begin to address the degradation of water quality due to growth in population along coastal Alabama. Improvements to water quality has been identified in the Coastal Alabama River Basin Management Plan, Mobile Bay National Estuarine Program Comprehensive Conservation Management Plan, and National Wildlife Federation planning documents as a priority for Gulf-wide restoration. Water quality improvement and the decrease of point and non-point source pollution into receiving waters enhances the long-term resilience of multiple coastal and marine living resources, creating a vibrant coastal ecosystem. Clearer waters due to decreases in sediment and pollutants like nutrients let more light through the water column and may increase seagrass cover, a critical fish habitat. Oysters will filter microscopic algae instead of pollution out of coastal waters, improving the fishery. The growth of healthy oyster reefs will create critical fish habitat. Birds and sport fish will feed on benthic organisms and small aquatic organisms that aren't loaded with pollutants, resulting in less bioaccumulation of pollutants, perhaps resulting in abundant and more robust offspring.

Project Duration (in years): 10

Goals

Primary Comprehensive Plan Goal:
Restore Water Quality and Quantity

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

Secondary Comprehensive Plan Objectives:
Promote Community Resilience

Secondary Comprehensive Plan Goals:

N/A

PF Restoration Technique(s):
Reduce excess nutrients and other pollutants to watersheds: Erosion and sediment control
Reduce excess nutrients and other pollutants to watersheds: Stormwater management
Reduce excess nutrients and other pollutants to watersheds: Wastewater system improvements

Location

Location:
Coastal Alabama: Mobile and Baldwin Counties

HUC8 Watershed(s):
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Florida Panhandle Coastal(Perdido Bay)
South Atlantic-Gulf Region(Alabama) - Alabama(Lower Alabama)
South Atlantic-Gulf Region(Mobile-Tombigbee) - Mobile Bay-Tombigbee(Mobile-Tensaw)
South Atlantic-Gulf Region(Mobile-Tombigbee) - Mobile Bay-Tombigbee(Mobile Bay)
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Florida Panhandle Coastal(Perdido)
South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Escatawpa)
South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Mississippi Coastal)

State(s):
Alabama

County/Parish(es):
AL - Baldwin
AL - Mobile

Congressional District(s):
AL - 1

Narratives

Introduction and Overview:
Restoration of water quality has been identified as a major restoration goal by the state of Alabama and the Alabama Department of Conservation and Natural Resources (ADCNR). Multiple stakeholder engagement forums with coastal Alabama communities, municipalities, and non-governmental organizations have prioritized the improvement of water quality for promoting ecosystem health as an important driver of restoring the environment and economy of coastal Alabama (MBNEP 2019). Within the Mobile Bay National Estuary Program (MBNEP) Comprehensive Conservation and Management Plan (CCMP), water quality was identified as

one of the six guiding values of conservation management (MBNEP 2019). Alabama continues to invest millions of dollars into water quality improvements via the RESTORE Spill Impact Component, RESTORE Direct Component, and RESTORE Council Selected Component projects across Mobile and Baldwin Counties, including projects in Fairhope, Mount Vernon, Bayou La Batre, Dauphin Island, Mobile, Satsuma, Chickasaw, and Loxley (AGCRC 2018, AGCRC 2019, GCERC 2021).

In Alabama, water quality is monitored by the Alabama Department of Environmental Management (ADEM) and other local entities. The 2024 ADEM 303(d) List of impaired water bodies is submitted to the Environmental Protection Agency (EPA) each year. In the coastal counties of Alabama, Mobile and Baldwin, over 100 impaired water bodies were listed. The listed water bodies are utilized for public water supply, shellfish harvesting, swimming, fish and wildlife, and several hold designations of Outstanding Alabama Water. Organic enrichment, pathogens including Enterococci and E. coli bacteria, and metals including arsenic, thallium, and mercury are reported pollutant(s) leading to the impaired designation. Sources listed include municipal collection system failures, urban runoff, industrial activities, siltation, storm sewers, agriculture, and on-site wastewater systems (septic). These impaired waterbodies include, but are not limited to: Mississippi Sound, Portersville Bay, Grand Bay, Fowl River, Silver Creek, Mobile Bay, Pelican Bay, Boggy Branch, Perdido River, Styx River, Perdido Bay, among others (ADEM 2024).

ADCNR proposes the continuation of the Coastal Alabama Regional Water Quality Program (the Program). The program and projects may include, but are not limited to: planning-related work (e.g., project prioritization and selection, engineering and design, and permitting and compliance activities), construction of stormwater and wastewater management systems (including upgrades and repairs to existing systems), low impact development/green infrastructure activities, and septic to sewer conversions. Utilizing a process established for public engagement and project identification under the FPL3b Coastal Alabama Regional Water Quality Program, ADCNR will select projects for Category 1 implementation; additional projects will be added during the life of the program. E&D, permitting, and other pre-construction planning activities will be conducted according to State and Federal engineering and design guidelines, environmental compliance and construction standards. Category 2 workplans will also be considered.

There are five goals within the RESTORE Councils comprehensive plan. This Program addresses one of those goals, Goal #2: Restore Water Quality and Quantity. The Program ties in with RESTORE Councils primary objective of Restore, Improve, and Protect Water Resources. Under the 2016 Comprehensive Plan update the Council advanced the following commitments:

- Regional ecosystem-based approach to restoration: Through extensive engagement opportunities as a result of the CPS support funds, it is clear that water quality is a priority goal for the Restore Council members from Florida to Texas. Addressing water quality degradation and impairment is a foundational component of restoring/enhancing

a host of living and coastal marine resources. Addressing water quality sustains multiple elements of local Alabama coastal communities as well as regional resilience to multiple living coastal marine resources within Alabama, and across the Gulf.

- Leveraging resources and partnerships: The State of Alabama has invested significant funding under National Fish and Wildlife Foundation Gulf Environmental Benefit Fund (NFWF-GEBF) as well as the initial Funded Priorities List (FPL) into developing watershed planning documents that have opportunities to fund prioritized water quality related improvement projects. Additionally, the Alabama Recovery Council has identified several Direct Component (B1) and Spill Impact Component (B3) water quality improvement projects that would leverage and coordinate with planning process and eventual project selection under this program. Lastly, GOMESA funding is anticipated to be leveraged into the implementation of this water quality improvement program, maximizing the number of projects that could get implemented and providing unforeseen contingency funding if needed.
- Engagement, Inclusion, and Transparency: Since 2010, ADCNR and the State of Alabama have provided multiple opportunities for the public to identify restoration funding priorities. Water quality improvement has been a strong and consistent theme in this public input. Within the MBNEP stakeholder engagement efforts for the CCMP development, water quality, its assessment and improvement, are identified as a priority restoration activity.
- Science-based decision-making: Utilizing the best available science as well as relying on the local knowledge of water quality issues from counties and municipalities and, wastewater and stormwater maintenance concerns and repair history, ADCNR would prioritize and select water quality projects for implementation. Additionally, technical expertise would be provided through a small technical work group during the project evaluation and categorization process.
- Delivering results and measuring impacts: Monitoring the pervasive water quality degradation and the indirect impacts on living coastal and marine resources is challenging. This program would monitor individual projects (impact dependent on purpose) and roll up water quality improvements from a construction, E&D, and permitting perspective to gauge broader program success.

The improvement of water quality conditions has multiple environmental benefits (Capps 2019). Through water quality improvement (i.e., nutrient and other pollutant reduction) multiple living coastal marine resources benefit. A decrease in nutrient loads to downstream receiving water bodies reduces the development of algal blooms (as well as harmful algal blooms) thus reducing the opportunity for hypoxia to develop and result in mortality of sedentary benthic organisms and harm to mobile marine resources such as fisheries. Water quality degradation of coastal water bodies in Alabama is both an economic (recreational and commercial) and environmental stressor. In the case of bacterial and viral contamination of aquatic systems, fisheries and oyster harvesting may need to be closed, causing deleterious consequences on coastal workforce and economies. Bacterial and nutrient loading from pollutant sources results in harmful algal blooms, oyster reef closures, hypoxia development, and indirect consequences on coastal economies. A number of water quality assessments conducted in Alabama over the

last decade underscore the importance of addressing water quality impairments stemming from wastewater discharge and stormwater runoff holistically (see MBNEP 2012, MBNEP 2014, MBNEP 2016, MBNEP 2018, MBNEP 2019).

Total Cost: $8,000,000. Water quality implementation is scalable, with 90% of these funds being used for implementation.

Timeline: 10 years.

ADCNR would work and partner with coastal counties, municipalities, non-profits, and utility associations to implement water quality improvement program objectives. This Program aligns with the planning framework approach to reduce excess nutrients and other pollutants to watersheds and downstream receiving waters. Further, this program would utilize planning framework techniques including storm-water management, erosion and sediment control, and wastewater system improvements.

Proposed Methods :
The Program will be very similar to the water quality improvement programs funded by the State of Florida, Mississippi, and Texas. Alabama's program will immediately support the restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region (GCERC, 2016). Activities within this specific proposed program could run concurrently and would include, but not be limited to, the following:

- Planning, project identification, project vetting, and project selection;
- engineering and design (E&D), and permitting;
- conversion from septic to sewer in coastal communities; and
- implementation of new or repairing/upgrading existing stormwater and wastewater systems and/or low impact development activities.

Planning, Project Identification, and Selection
In order to fund any engineering and design and construction projects, ADCNR will utilize a process established for public engagement and project identification under the FPL3b Coastal Alabama Regional Water Quality Program. ADCNR will select projects for Category 1 implementation; additional projects will be added during the life of the program. E&D, permitting, and other pre-construction planning activities will be conducted according to State and Federal engineering and design guidelines and construction standards. Category 2 workplans will also be considered.

Application Preparation: An application narrative would be put together that could include, but not be limited to, the following:

- water quality improvement activities proposed;
- location and receiving water body that it would impact;

- current impairments/ degradation of receiving water body;
- potential community need;

- ecological benefits of implementation;
- possible resilience considerations; and
- matching funds / leveraging opportunities.

The project application window would be open between 45 – 60 days. Within this application window ADCNR would hold an info session / webinar for potential applicants. The information contained in the proposals in the above areas will inform the categorization and selection of projects for implementation.

Technical Team Review: A small technical group would review proposals according to an evaluation process that would review the information provided, address additional logistical considerations and additional evaluation criteria, as determined by ADCNR and the technical group. The technical group would categorize projects as follows:

Category 1: those projects which have the potential to be most beneficial and/or that are closer to implementation;
Category 2: Those projects which represent a medium priority or benefit;
Category 3: Those projects that do not have enough information to make decisions or that are a better fit for another funding source.
ADCNR reserves the right to move projects between categories.

Public Comment: The categorized project list would be presented to the public via a webinar or public meeting to receive public input in order to further evaluate and refine and reprioritize the list as appropriate. ADCNR, with the support of the technical team, would evaluate funding availability and leverage opportunities and would meet with the potential sub-recipients to get additional information on the projects as needed.

Project Selection: ADCNR, with input from the technical team, will select a slate of projects for inclusion in the program. The slate of projects could include several alternates given possible logistical considerations and budget changes. ADCNR would engage the RESTORE Council on Category 1 and Category 2 projects, respectively, based on environmental compliance needs or inclusion, and would initiate the grant application process on behalf of the sub-recipient with the RESTORE Council.

E&D and Permitting: Engineering, design, and permitting of the identified projects would be considered for funding utilizing standard engineering practices, including certified and stamped plans. Depending on the style and type of system upgrade (conventional gravity sewers, pumping stations, treatment works, etc.), repair or construction, standard engineering principles or guidelines would differ. Specific engineering guidelines would be informed by Alabama state agency policy decisions.
Implementation: Implementation within the water quality improvement program would focus on

stormwater and wastewater improvement practices. Any implementation would follow standard construction and environmental practices, and any other applicable state and federal requirements (Walsh et al., 2005a, b; Hogan and Walbridge, 2007; Walsh et al., 2016). Implementation could include a broad range of activities to treat and improve water quality moving downstream, including, but not limited to:

- connection of existing septic systems to main line sewer infrastructure;
- crushing and filling of discontinued septic systems;
- upgrades, repairs, and replacements of sewer lines, including cure in place pipe (CIPP) technologies;
- installation of low impact development infrastructure/features;
- wastewater treatment plants, stormwater connections, manholes, and pump stations; and
- installation of water control structures and integration of existing drainage canals with green infrastructure.

Design teams could consider additional resources on new technologies tied to upgrades and improvements to wastewater collection systems, wastewater and sludge processing or treatment, emerging contaminants, and powering treatment stations. For example, the EPA has a searchable Clearinghouse on Wastewater Technology and have published a list of references on emerging contaminant reports and technologies as well as publications on alternative energy systems that generate power at treatment facilities. Construction would be conducted following specific Alabama guidelines for construction practice implementation (e.g., The Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction sites and urban Areas; ASWCC, 2018). Additionally, this program would be coordinated with other water quality improvement efforts under other Deepwater Horizon related funding streams, including water quality activities funded with more than $90M in local, Direct Component, Council-Selected Component, Spill Impact Component, GOMESA, and NFWF-GEBF funds.

Environmental Benefits:

Degraded water quality is a consistent threat to Alabama coastal waters. Restoration and improvement of the quality of water, as a natural resource, would benefit the marine/coastal ecosystems, habitats, and fisheries within Alabama waters, and regionally within the Gulf. Water quality impacts of nutrient and bacterial pollution in coastal systems is a global phenomenon (Mallin et al., 2000; Bennett et al., 2001; Diaz and Rosenberg, 2008; Vörösmarty et al., 2010; Lymer et al., 2018; O'Mullan et al., 2019). Decreasing water quality due to eutrophication by nutrients of streams, lakes, rivers, bays and marine water bodies results in changes in the physiochemistry of the water column, including pH, oxygen, loss of light penetration and excessive growth of plants and algae (Akinnawo 2023). Water quality degradation is often associated with rural food production (fertilizer and fecal bacteria), urban runoff, discharge of contaminated waters from septic tanks, antiquated municipal sewer infrastructure and sanitary sewer overflows (SSO). The causes of water quality degradation are often associated with wastewater management issues (Zhang et al, 2023). There are numerous studies and governmental reports that point to SSOs, overflow issues, and other infrastructure failures impacting and contributing to decreases in water quality in downstream receiving systems,

shellfish bed closures, and other environmental problems (see EPA, 2004). The EPA estimates that there are at least 23,000 – 75,000 sanitary sewer overflows (SSOs) per year in the U.S. EPA SSO website), causing serious water quality issues including contamination of water bodies with diseases (viruses and bacteria), harmful chemicals, and nutrients, and are a public health threat. Planning for replacement of aging or failing stormwater and wastewater infrastructure will take climate into consideration. addressing anticipated impacts of sea level rise, changes in precipitation and changes in water temperature. (Kessler 2011).

The Program will use the following strategic objectives for projects that will improve water quality in Alabama coastal waters: 1) evaluation and assessment; 2) E&D and permitting; 3) implementation; and 4) monitoring.

Evaluation: Broad geographic water quality evaluation and assessment could identify the source, dynamics, and cost effective stormwater and wastewater improvement practices to improve water quality (Park et al., 1994; Sharpley et al., 2007; Spellman, 2008). A project evaluation and categorization process could inform project selection. Consideration of priorities identified in Mobile Bay NEP Watershed Management Plans will also be included in the evaluation process.

Engineering and Design: Engineering, design, and permitting to restore water quality using standard engineering practices, including certified and stamped plans, would be informed by respective state engineering design standards. This objective identifies and evaluates wastewater-related engineering solutions for specific issues; assembles background information; examines alternate solutions during preliminary plans, presents solutions using best practices to ADCNR while identifying assumptions; receives feedback and narrows down the project solution focusing on efficiency, effectiveness and provides cost estimates.

Implementation: Implementation of designed stormwater and wastewater improvement practices would follow standard construction and environmental practices, and any other applicable state and federal requirements (Walsh et al., 2005a, b; Hogan and Walbridge, 2007; Walsh et al., 2016). In addition, all implementation activities would follow construction best management practice requirements to mitigate both on-site and off-site environmental and societal risks (e.g., ASWCC, 2018)

Monitoring: Water quality monitoring would document project outcomes and project-specific changes to downstream receiving waters allowing the state to make data-based decisions about specific solutions based on measured improvements (Fu et al., 2019; Tolouei et al., 2019). This would include monitoring the success of the respective practices (Kondolf and Micheli, 1995; Spellman, 2008; Lindenmayer and Likens, 2009a, 2009b; Reynolds et al., 2016), specifically wastewater discharges.

The methodologies and objectives in the Scope of Work section follow best available science for water quality improvement projects, are scientifically defensible, and allow for an on-the-ground operational decision-making process to best improve water quality. Proposed

metrics are subject to change based on individual project considerations.

Best available science throughout this proposal underwent review in the FPL 3b proposal Coastal Alabama Regional Water Quality Program. Alabama elects to use the existing BAS review materials for the new 2026 FPL funding proposal given that this proposal includes the same scope of work and is adding funds to the existing program. Based on the previous BAS review, modifications were made to the final proposal submitted under FPL 3b, which is acknowledged in the BAS response document.

Metrics:

Metric Title: PRM009 : Research - # studies reported to mgmt.

Target: 0.99

Narrative: The number of studied conducted would indicate the number of water quality implementation projects moved forward to planning and/or implementation.

Metric Title: PRM012 : Tool development for decision-making - # tools developed

Target: 0.99

Narrative: The number of tools developed would indicate the number of water quality implementation projects moved forward to implementation.

Metric Title: RES004 : Upgrades to Stormwater and/or Wastewater Systems - CFU Reduction in bacterial loads

Target: 0.99

Narrative: Target for metric regarding CFU reduction in bacterial loads is project-specific and will be dependent on baseline information to be obtained at a later date.

Metric Title: PRM011 : Restoration planning/design/permitting - # E&D plans developed

Target: 0.99

Narrative: The number of E&D plans would indicate the number of water quality implementation projects moved forward to implementation.

Metric Title: PRM013 : Restoration planning/design/permitting - # environmental compliance documents completed

Target: 0.99

Narrative: The number of permits/compliance documents would indicate the number of water quality implementation projects moved forward to implementation.

Metric Title: RES002 : Watershed management - # upgrades to stormwater and/or wastewater systems

Target: 0.99

Narrative: The number of implementation activities would indicate the number of projects implemented for water quality improvement.

Risk and Uncertainties:
There are risks and uncertainties related to the construction and implementation of water quality improvement projects.

Practice Implementation: Typically, counties and municipalities have working on the ground knowledge of the best infrastructure repairs and upgrades. Entities may be unsure about the water quality improvement benefits associated with a variety of newer technological options versus traditional repairs and upgrades. Planning and research around benefits of respective technologies reduces the risk and uncertainty of practice implementation.

Cost: Implementation costs may be highly variable considering undiscovered issues and logistics associated with newer technologies. Not being able to measure water quality improvements resulting from new technologies is a typical concern. The risk associated with undetectable improvements can be mitigated with due diligence and appropriate, tailored, monitoring targeting the area of concern. Uncertainty is further reduced by specifying tasks and objectives for planning and evaluation, clarifying and targeting the scientific basis for implementation, determining the types of practices implemented, which can result in respective costs reduction. Diligent project management and oversight is a key element of mitigating these risks.

Experience: Counties and municipalities are potential subaward recipients that, with long-term experience in implementing wastewater and stormwater improvement projects across coastal Alabama, they are familiar with environmental and societal risks associated with the

implementation of a variety of practices. Project management by ADCNR should lead to utilization of appropriate mitigation measures (best management practices). Risk considerations include environmental degradation from construction practices and mitigating offsite effects. Risks are mitigated in the near-term through the use of best management practices for erosion and sediment control, sediment (ASWCC, 2018). The implementation of the water quality improvement reduces the long-term environmental risk.

Sea Level / Storm Surge: Sea level rise and storm surge are two risks and uncertainties to project implementation performance. Hummel et al. (2018) summarized a national assessment of coastal wastewater treatment facilities at risk for sea level rise. The Gulf coast of Alabama and Mississippi was classified as low risk, with low exposure across a sea level rise gradient from 1ft to 6ft. Given the variability in sea level rise prediction as well as the anticipated immediate ecosystem service benefits of the implementation of sewer and wastewater infrastructure, is imperative that engineering consider the resilience of pipe infrastructure implementation to potential scenarios of sea-level rise. Storm surge is another factor that will need to be taken into consideration and may require upgrades (i.e., pump stations, backflow valves, electrical connections etc.) based on storm surge predictions to ensure that engineered solutions include surge in modeling and planning, ensuring reliability under variable conditions.

Monitoring and Adaptive Management:
Project-specific monitoring would include documentation of water quality improvements for the identified water resource issues (i.e., nutrients, sediment, bacteria, inflow and infiltration). As-built monitoring would include surveys and other data collection as needed. Pre-implementation and post-implementation monitoring for degradation sources would be monitored to observe trends over time which could be compared to long-term advisory information. There is the potential to document changes, but that will be highly dependent on the availability of monitoring data to identify trends. Additional monitoring that could take place for construction improvements could include pressure gauge and/or smoke testing, infiltration and inflow (I&I) testing and modelling. Post implementation monitoring would identify project-specific outcomes. Any project-specific monitoring metrics or measures identified would be cross-referenced with NRDA MAM manual (DWH 2017) as well as any associated water quality monitoring guidance from the Council Monitoring and Assessment Work Group.

Additional metrics may be added on a project specific basis.

These potential metrics would be assigned on a project-specific basis and all required documentation (ODP, GIS, etc.) would be provided at that time.

Data Management:
To the extent practicable, environmental and biological data generated during monitoring activities would 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, electronic notes, notebooks, and photographs would be retained by the ADCNR.

Relevant project data that are handwritten on hardcopy datasheets or notebooks would be transcribed (entered) into standard digital format. All data would 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 would be made publicly available and accessible on a website that is still to be determined.

Collaboration:
Through the FPL collaborative planning process, Alabama identified an opportunity for further funding to improve Water Quality across the Gulf. The States of Alabama, Florida, Mississippi, and Texas all share a collaborative desire to improve water quality, with Mississippi and Florida sharing watersheds and boundary waters to enhance regional water quality opportunities for collaboration. The State of Alabama, via the Mobile Bay National Estuary Program, has funded the development of several watershed plans that have included grassroots engagement of coastal Alabama stakeholders to determine priorities as well as potential restoration actions and activities to address those restoration priorities. Water quality has shown to be a priority restoration objective for the stakeholders of coastal Alabama.

Public Engagement, Outreach, and Education:
ADCNR and the State of Alabama held a restoration summits in 2018 and 2022 as well as several meeting for the Councils' planning framework for FPL 3. Water Quality was one of the priorities that was identified by the coastal stakeholders at the Summit. In addition, the Alabama Recovery Council public engagement effort resulted in several Bucket 1 and Bucket 3 Water Quality projects that were prioritized for funding.

To further facilitate Alabama stakeholder prioritization of water quality as a restoration priority, and to encourage transparency throughout the program life, there would be two info / webinar sessions during the project selection process:

- The first would be for potential applicants to provide additional thoughts, questions, and solicit input around proposed water quality improvement ideas;
- The second would be to provide decisions / results of project categorization process for all submitted projects.

This second webinar would provide the public an opportunity to see the results of project categorization, and obtain feedback and comments on the projects. This information could be incorporated into the final DCNR decision making process for final project selection.

Leveraging:

Funds: $3,000,000.00

Type: Leveraging

Status: Received

Source Type: Other Federal

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

Funds: $16,130,748.66

Type: Leveraging

Status: Received

Source Type: Other Federal

Description: FPL 3b Coastal Alabama Regional Water Quality Program grant award for planning and implementation.

Funds: $19,000,001.34

Type: Leveraging

Status: Committed

Source Type: Other Federal

Description: FPL3b Coastal Alabama Regional Water Quality Program Cat 1 approved/Cat 2 committed funds not yet awarded

Funds: $550,180.00

Type: Leveraging

Status: Received

Source Type: Local Funder (e.g., city, county, parish)

Description: Local funding commitments to workplans awarded under the FPL3b Coastal Alabama Regional Water Quality program grant award.

Funds: $45,250,000.00

Type: Leveraging

Status: Received

Source Type: Other

Description: Land Acquisition/Conservation: Protection, conservation and enhancement of habitat adjacent to an established bird sanctuary and important migratory stopover habitat.

Funds: $7,477,500.00

Type: Leveraging

Status: Received

Source Type: Other

Description: Protection and conservation of priority coastal habitat in Grand Bay, one of the most pristine and diverse areas remaining on the Alabama Gulf coast.

Funds: $26,829,000.00

Type: Leveraging

Status: Received

Source Type: Other Federal

Description: Aloe Bay/Mississippi Sound Water Quality Enhancement Project: Design plans, management protocols, environmental compliance documents and constructed mitigation measures leading to improved water quality and community resilience.

Funds: $2,154,842.00

Type: Leveraging

Status: Received

Source Type: Other Federal

Description: Engineering and Design work necessary to complete plans, specification and engineering for certain water distribution system upgrades located within the service area of the Utilities Board of Bayou la Batre; Bayou la Batre Utilities Septic to Sewer Improvements Projects.

Funds: $23,866,000.00

Type: Leveraging

Status: Received

Source Type: Other Federal

Description: The City of Mobile will complete the engineering and construction for the restoration and protection of water quality of the area's fresh, estuarine, and marine water resources by providing bank and stream stabilization along Twelve Mile Creek and the dredging and restoration of Langan Park Lake, both of which drain into Three Mile Creek and Mobile Bay. Additionally, existing sanitary sewer crossings will be protected from damage caused by widening of the stream. Dredging of Langan Park Lake will increase the capacity of the lake, support flood control and aid apple snail control efforts. Additional invasive species control measures will be undertaken.

Funds: $250,000.00

Type: Leveraging

Status: Received

Source Type: Other Federal

Description: Engineering and Design of City of Loxley Corn Creek Tributary Restoration

Funds: $14,230,000.00

Type: Leveraging

Status: Received

Source Type: Other Federal

Description: Fairhope Area Community-Based Comprehensive Land Use Plan: This project involves the creation of a community-driven comprehensive land use plan for the City of Fairhope to address growth with an emphasis on environmental stewardship and legal foundation for implementation. Fairhope Sewer Upgrade Phase I This project is Phase I - Planning to address the most urgent needs within the sewer system by instituting major rehabilitation measures for the complete replacement of 4 main pump stations and rehabilitation of the major gravity outfall lines utilizing cost-effective and environmentally sensitive engineering solutions. Activities include engineering, design and permitting.

Environmental Compliance:

This Program would partition funding between Category 1 Planning and Category 2 Implementation funding. Coordination with council members will continue for the discovery and use of NEPA documentation, including categorical exclusions (CEs) to maximize the amount of funding placed into Category 1. The Category 1 planning activities are covered by the Council's NEPA Categorical Exclusion for planning, research or design activities (Section 4(d)(3) of the Council's NEPA Procedures). Subsequent FPL amendment(s) and additional environmental compliance will be needed to approve implementation funding for the Category 2 efforts under this program. It is well understood that funding placed in Category 2 is not guaranteed and is determined by NEPA.

Bibliography (All references listed below that were published prior to 2025 may reference the Gulf of Mexico. This nomenclature has been retained to maintain the integrity of the referenced material. The Council recognizes the name change Gulf of America):

Akinnawo, S. O. 2023. Eutrophication: Causes, consequences, physical, chemical and biological techniques for mitigation strategies, Environmental Challenges, Vol 12, pp. 18

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Budget

Project Budget Narrative:
A total of $8,000,000 is being requested from 2026 FPL to fund additional planning, implementation and monitoring associated with the Program. This project is scalable. The funds being requested are solely intended to be used to determine and implement water quality related infrastructure improvement implementation. Any additional leveraging and cost sharing, from respective cities, municipalities, or additional Deepwater Horizon related funding streams are not part of this request. An estimated 70% is being requested for construction and project implementation. Implementation within the Program may include, but is not limited to, program management, individual project management, project implementation related work (e.g., engineering and design, any required permitting), construction of stormwater and wastewater management systems (including upgrades and repairs), as well as possible septic to sewer conversions. An estimated 20% is being requested for project planning activities such as program planning, project selection and identification. An estimated 5% is being requested for project administration, including administrative programmatic functions, coordination, and sub-recipient / contractual support for project implementation. An estimated 4% is being requested for monitoring and adaptive management activities to ensure progress is made towards water quality improvement. An estimated 1% is being requested for data management activities.

Total FPL Project/Program Budget Request:
$ 8,000,000.00
Estimated Percent Monitoring and Adaptive Management: 4 %

Estimated Percent Planning: 20 %

Estimated Percent Implementation: 70 %

Estimated Percent Project Management: 5 %

Estimated Percent Data Management: 1 %

Estimated Percent Contingency: N/A

Is the Project Scalable?:
Yes

If yes, provide a short description regarding scalability.:
This project proposes to add funds to the FPL3b projects. As planning activities are accomplished, implementation costs will be refined and the implementation activities will be prioritized.

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	Yes	The Category 1 planning activities are covered by the Council's NEPA Categorical Exclusion for planning, research or design activities (Section 4(d)(3) of the Council's NEPA Procedures). Subsequent FPL amendment(s) and additional environmental compliance will be needed to approve implementation funding for the Category 2 efforts under this program.
Endangered Species Act	N/A	Note not provided.
National Historic Preservation Act	N/A	Note not provided.
Magnuson-Stevens Act	N/A	Note not provided.
Fish and Wildlife Conservation Act	N/A	Note not provided.

Coastal Zone Management Act	N/A	Note not provided.
Coastal Barrier Resources Act	N/A	Note not provided.
Farmland Protection Policy Act	N/A	Note not provided.
Clean Water Act (Section 404)	N/A	Note not provided.
River and Harbors Act (Section 10)	N/A	Note not provided.
Marine Protection, Research and Sanctuaries Act	N/A	Note not provided.
Marine Mammal Protection Act	N/A	Note not provided.
National Marine Sanctuaries Act	N/A	Note not provided.
Migratory Bird Treaty Act	N/A	Note not provided.
Bald and Golden Eagle Protection Act	N/A	Note not provided.
Clean Air Act	N/A	Note not provided.
Other Applicable Environmental Compliance Laws or Regulations	N/A	Note not provided.

Maps, Charts, Figures

Caption : Coastal Alabama Regional Water Quality Program Map

Other Uploads

GIS Data_1:
RESTORE_GIS_Template.gdb.zip
Caption : N/A
Link to Download
http://www.restorethegulf.gov/apps/piper/web/Uploads/Download/proposal/4070/85

Council Staff Review: Coastal Alabama Regional Water Quality Program

FPL Internal Staff Review

Project/Program	Coastal Alabama Regional Water Quality Program		
Primary Reviewer	Matt Love	Sponsor	Alabama
EC Reviewer	John Ettinger	Co-Sponsor	

1. Is/Are the selected Priority Criteria supported by information in the proposal?	Yes
Notes	Continuation of an FPL3b program.

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	

5. Does the proposal align with the applicable RESTORE Council definition of project or program?	Yes
Notes	

6. Does the budget narrative adequately describe the costs associated with the proposed activity?		More information needed
Notes	The 2026 FPL Coastal Alabama Regional Water Quality Program proposal provides the total funding amount requested for the activity, along with the percentage breakdown between FPL Categories 1 and 2. By applying the percentages to the total for the activity the requested amount in FPL Category 1 is $2,400,000 and Category 2 is $5,600,000. Need to verify numbers are correct. Note: Restore Council staff worked with the state to resolve these comments.	

7. Have three external BAS reviews been completed and has the proposal sponsor provided their response?		Yes
Notes	Alabama applied BAS reviews of Program that were completed upon original proposal of the program in Funded Priorities List 3b. This is justified due to the methods remaining largely the same and the scientific integrity of the program potentially increasing. Note: Restore Council staff worked with the state to resolve these comments.	

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	Implementation funding is in FPL Category 2.	

Best Available Science Review: Coastal Alabama Regional Water Quality Program.

This program was reviewed for BAS under FPL 3a. Under 2026 FPL, Alabama is proposing a continuation of the program.

The original BAS review as well as the state's response to the BAS comments can be found on the 2026 FPL webpage.