

Mobile Bay National Estuary Program Management Conference
CCMP Update, Year One
Work Plan

October 1, 2018–September 30, 2019



Prepared by
Mobile Bay National Estuary Program
www.mobilebaynep.com



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PREFACE

In 1972, the Clean Water Act was created to restore and maintain the chemical and biological integrity of the nation's waters so they can *support the protection and propagation of fish, shellfish, wildlife and recreation in and on the water*. In 1987, the National Estuary Program (NEP) was created by the U.S. Congress via amendments to this Act to identify, restore, and protect nationally significant estuaries. Authorized under Title 3, Section 320, Public Law 94-117, 33 U.S.C 466, the goal of this program is to protect and restore the water quality and living resources of estuaries and associated watersheds designated by the EPA Administrator as estuaries of national significance.

NEPs work to implement estuarine ecosystem-based management by characterizing the priority problems in their estuaries and surrounding watersheds, developing Comprehensive Conservation and Management Plans (CCMPs) that list and describe actions to address those problems, and identifying partners, including lead entities, to implement the actions. Locally, the Mobile Bay National Estuary Program (MBNEP), in existence for the last 23 years, facilitates the creation of the CCMP and its updates through coordinating scientific assessment of where and what stresses are impacting the health of our estuarine ecosystems, capturing the input of citizens throughout Mobile and Baldwin counties, and initiating the development of actions identified by community leaders, resource managers, and scientists to conserve, restore, and protect those things valued most about living in coastal Alabama.

Respect the Connect: A Comprehensive Conservation and Management Plan for Alabama's Estuaries and Coast was first published in 2013. Since its publication, many of the strategies for measuring ecosystem health, restoring watersheds, building community capacity, and expanding citizen education and involvement have been implemented resulting in some noteworthy successes. However, implementation of this plan is far from complete.

In 2018, the MBNEP began the process of updating the CCMP as a requirement of the **National Estuary Program Comprehensive Conservation and Management Plan Revision and Update Guidelines** (EPA, May, 2016). This updated Implementation Plan will reaffirm the goals of the 2013-2018 plan, acknowledge the strengths, weaknesses, opportunities, and threats of implementing the strategies in that plan, identify barriers to implementation of the current strategies, and refine the objectives and suggested activities identified to accomplish the reaffirmed goals. The final outcome of this effort, due out by the end of the year, will provide the Mobile Bay National Estuary Management Conference with a road map for meeting the environmental needs of Mobile Bay, its surrounding watershed, and coastal Alabama for the next 5 years.

The following Annual Workplan has been prepared using the draft updated strategies anticipated to be included in the CCMP Update for 2018-2021.

INTRODUCTION

MBNEP's mission is to promote the wise stewardship of water quality and living resources of the Alabama's estuaries. MBNEP's purpose is to catalyze actions of estuary stakeholders, build community organizational capacity for sound resource management, and leverage commitment and investment to ensure the estuary's sustainability. MBNEP's objectives: Engage estuary stakeholders in the development of CCMPs; 2) expand resources and involvement in the implementation of these CCMPs; and 3) promote how to best protect this nationally-significant ecological, economic, and cultural resource to ensure its conservation for our lifetime and beyond. To maximize effectiveness in promoting estuary health, the program's guiding principles are:

Those that live it know it - Citizens, fishermen, boaters, scientists, hunters, and others have a unique insight into the environmental challenges we face, what works, and what doesn't. **Stakeholder input is vital to developing long-term solutions to local challenges.**

Economic opportunities must be available - Our coast is an economic engine, creating significant wealth for our state each year through activities such as trade through the Port of Mobile, recreational and commercial fishing, tourism, hunting, and coastal construction. **Many jobs depend on coastal water quality, healthy populations of fish and wild life, and a mosaic of habitats providing essential natural functions.**

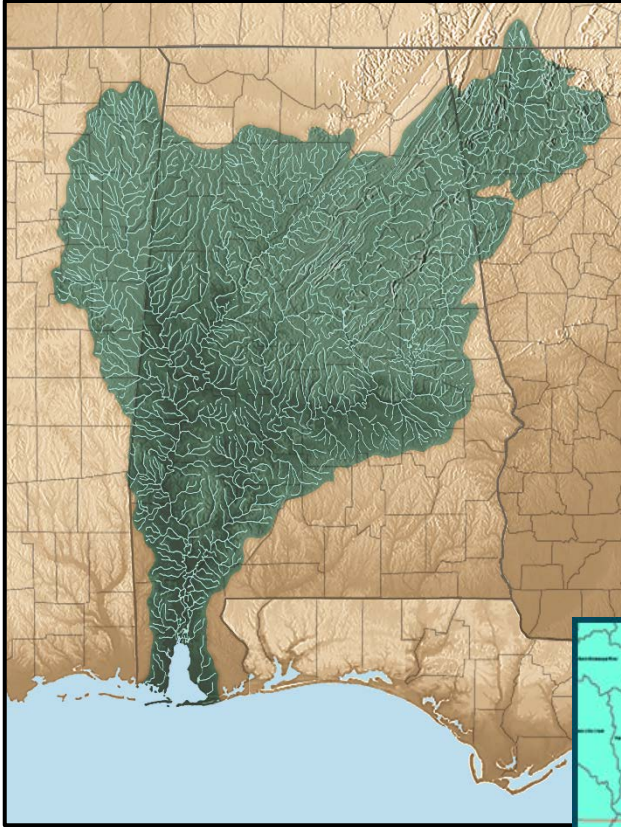
It happens in the river, in the sea, and on the street - Residents, towns, cities, counties, business and industry, academia, community developers, and social services all have a vested interest in preserving the quality of life derived from Mobile Bay and coastal Alabama's estuaries. Involvement of citizens in carrying out activities aimed at improving the Bay and its watersheds is paramount to ensuring the long-term health and vitality of the Mobile estuary. **Citizens must be actively engaged in balancing the many uses of the Bay so that we can preserve its unique natural resources for all of our needs.**

Our vision: Alabama's estuaries ("where the rivers meet the sea") are healthy and support ecological functions and human uses. Everyone deserves the opportunity to experience the beauty and bounty of Alabama's estuaries - its rivers, creeks, bays, and bayous; abounding diversity of fish and wildlife; productive wetlands; and forests, dunes, and beaches. Alabama's estuaries are integral to our common good.

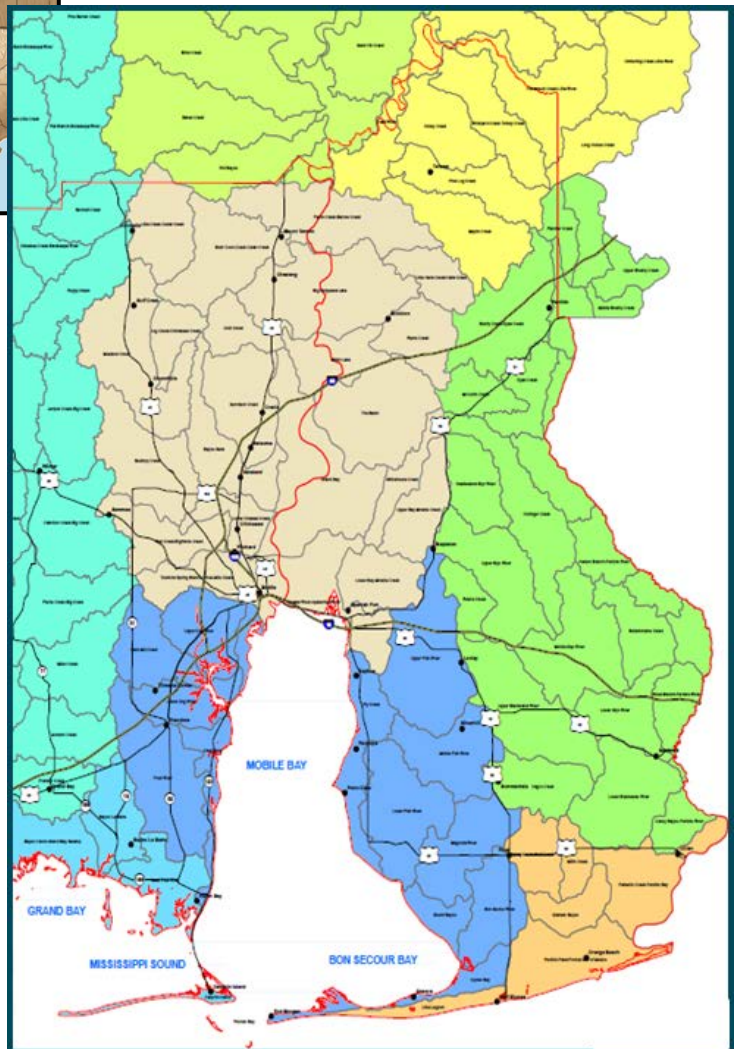
Program Staff:

*Tiffany England, Grants and Business Manager
Tom Herder, Watershed Protection Coordinator
Kelley Barfoot, Community Outreach Coordinator
Paul Lammers, Program Restoration Manager
Rick Frederick, Community Relations Manager
Christian Miller, Watershed Management Coordinator
Jason Kudulis, Monitoring and Science Coordinator
Bethany Dickey, Program Administrator
Ben Brenner, Media Specialist
Jackie Wilson, Media Intern
Roberta Arena Swann, Director*

GEOGRAPHIC DISTRIBUTION



Although the actual watershed for Mobile Bay encompasses more than two thirds of the State of Alabama and portions of Georgia, Mississippi, and Tennessee, MBNEP's primary target area is limited to southern Alabama, including all of Mobile and Baldwin Counties, from the eastern edge of coastal Alabama to its western coastal border. In addition, it extends seaward to the three-mile State jurisdictional limit. MBNEP's target area also includes Mississippi Sound, up to the Mississippi/Alabama border. Major waterways include the Tombigbee, Tensaw, Apalachee, Blakeley, Escatawpa, Mobile, Alabama, Dog, Fowl, Fish, Magnolia, Bon Secour and Perdido Rivers; Chickasaw, Norton, Three Mile, and Eight Mile Creeks; and the Intercoastal Waterway, Wolf and Perdido Bays, and Little Lagoon.



PART ONE: 2018-2019 WORK PLAN EXECUTIVE SUMMARY

The following outline presents a summary of how the CCMP Update will be implemented in 2018-2019. The themes of the CCMP are in light blue, the goals are bold, and the objectives are indicated below the goals as numbers (ex. 1.1). Proposed activities are listed with letters to the left. Please note: The objectives listed are for the five-year period of the plan. Activities may fall out of alphabetical sequence due to projected implementation schedules. This document should be reviewed in concert with the strategies of the five-year CCMP.

EST ESTUARY STATUS AND TRENDS: GOALS/OBJECTIVES/SUGGESTED ACTIVITIES

EST-1: Improve understanding of the condition of the estuarine ecosystem.

- 1.1 Establish data management strategy for coastal Alabama
 - d. Determine appropriate repository for data
- 1.2 Maintain/improve existing level of coastal monitoring and data analysis.
 - a. Develop baseline data for watersheds related to water quality and sediment loading
 - b. Continue to develop baseline and post restoration monitoring for project success

EST-2: Establish process for measuring, analyzing and communicating change in estuarine condition.

- 2.1 Synthesize monitoring data and use results to develop a watershed condition index to track and communicate trends in watershed restoration and management
 - a. Use a biological condition gradient (BCG) (which describes biological condition along a continuum of anthropogenic stress, based on relative proportion of good, fair, and poor conditions) to measure ecological benefits of restoration (D'Olive Watershed).
 - b. Evaluate biological condition across various spatial scales (D'Olive Watershed)
 - c. Determine most cost effective metrics and efficient methods for evaluating trends in habitat condition related to watershed restoration efforts (D'Olive Watershed)
 - d. Develop a Watershed Condition Index to enhance the BCG by incorporating an objective of scoring local management effectiveness related to land use and development (D'Olive Watershed)

EST-3: Model and predict the connection between the condition of the estuarine system and the provision of valued ecosystem services.

- 3.1 Manage system for multiple services.
 - a. Develop ecosystem model using hydrologic, hydrodynamic, sediment, and biota modeling, validated by observational data to inform restoration engineering and design and reduce risk of unintended consequences to downstream ecosystem function and services (Fowl River)
 - d. Develop framework for assessing economic impact of habitat protection/restoration activities on local governmental budgets/capital improvement programs

ERP ECOSYSTEM RESTORATION AND PROTECTION: GOALS/OBJECTIVES/SUGGESTED ACTIVITIES

ERP-1: Improve water quality trends in watersheds that discharge into fish and shellfish nursery areas.

- 1.1 Develop 12 new CWMPs.
 - a. MTA Delta
 - b. Fly Creek
 - g. Garrows Bend
 - j. Mississippi Sound (Dauphin Island, West Fowl River)
- 1.2 Support implementation of 5 CWMPs.

- a. D'Olive Creek
 - b. Three Mile Creek
 - c. Fowl River
 - f. Bon Secour
 - d. Bayou La Batre
 - f. Dog River
- 1.3 Support the establishment and operation of watershed plan organizational structures as recommended in plans to ensure local ownership of implementation activities
- a. D'Olive Intergovernmental Taskforce
 - b. 3MC Partnership
 - c. Fowl River Implementation Task Force
 - d. Baldwin County Watershed Coordinator
- 1.4 Update existing Watershed Plans to include new criteria (e.g. address 6217 (g) and 319 needs)
- a. D'Olive
- 1.5 Develop an Invasive Species Control/Monitoring Plan
- a. Compile and synthesize invasive species data by watershed

ERP-2: Improve ecosystem function and resilience through habitat protection, restoration, and conservation, including beaches, bays, backwaters, and rivers.

- 2.1 Develop a coastal Alabama Habitat Restoration and Conservation Plan
- a. Establish a technical committee to vet, revise prioritization criteria
 - b. Build a watersheds comparison tool to aid in decision support in evaluating projects
 - c. Build an online tool for analysis, tracking, and data use
 - d. Solicit adoption of plan by the State of Alabama
 - e. Bayou La Batre
- 2.4 Restore nearshore and intertidal marshes and flats .
- a. Western Shore of Mobile Bay (Deer River)

ERP-3: Improve human connections by restoring or expanding public access and recreation opportunities.

- 3.1 Create 5 new access points in Mobile County to reconnect citizens to natural resources. Incorporate historical, ethnic, and religious interpretive signage. In the next year we have plans to begin the following three:
- a. Three Mile Creek- Greenway
 - c. Mobile County- Blueway
 - d. Perch Creek
- 3.2 Protect/conservate priority habitats for public benefit and access through acquisition/easement.
- c. Promote/support acquisition consistent with Habitat Plan (current, future).
 - d. Support conservation activities in the greater Mobile Bay Watershed that contribute to improved water quality in the estuary
 - e. Track land conservation activities.

**TAC TECHNICAL ASSISTANCE AND CAPACITY BUILDING:
GOALS/OBJECTIVES/SUGGESTED ACTIVITIES**

TAC-1 Build capacity of water dependent industries to improve working waterfronts and preserve fishing communities.

- 1.1 Develop safe harbors to support commercial fishing fleets
- 1.2 Pilot a peer lending program to support fishing business investment in best practices.
 - a. Collect information on peer lending programs in other fishing communities.

- 1.3 Advocate for the assessment, improvements, and designation of estuary ports as "Green Ports."
 - b. Advocate establishment of revolving loan fund for green infrastructure improvements.
- 1.4 Develop planning tools to balance multiple uses of our estuarine resources.
 - a. Educate constituencies about how our marine resources are used, and update on better coordination of uses.
 - c. Build coalition of commercial and recreational fishermen and other marine area users to cooperatively address fishery issues of common interest (use Gulf States Marine Fisheries Commission as model).

TAC-2 Build Capacity of business community to create a clean water future

- 2.1 Partner with Partners for Environmental Progress to launch the Clean Water Future Campaign among its business members
 - a. Identify which of PEPs members are current CCWF partners.
 - b. Increase membership by 30% in first year
 - c. Establish program architecture for membership levels
 - d. Define brand requirements and use of logo
- 2.2 Engage businesses in influencing local resource management activities
 - a. Recruit private sector support to advocate for more responsible stormwater management implementation through letter-writing campaign.

TAC-3 Build capacity of local governments to manage and enhance coastal environmental resources.

- 3.1 Improve elected officials' understanding of the relationship between land use/water resources management decisions and environmental impacts.
 - a. Create/develop library of short videos to educate elected officials, municipal staff about best practices for resource management and protection (ex. Dune Overlays, stormwater, LID)
 - b. Create/develop inventory of decision support tools useful for better resource management, including hydrologic models of each watershed
 - c. Conduct local government/resource manager training on use of decision support tools, including development of video training on use of hydrologic models
 - d. Educate elected officials about existing ordinances for reducing non-point source pollution and support changes to improve effectiveness.
- 3.3 Establish the Coastal Alabama Stormwater Team to better coordinate stormwater management activities throughout the Mobile Bay Watershed to improve the quality of water flowing into coastal waters
 - a. Conduct an assessment of communities throughout the Mobile Bay watershed to determine opportunities for partnership on outreach and education materials
 - b. Recruit communities in providing content to the CCWF website
 - c. Recruit communities in becoming members of the CCWF campaign
 - d. Distribute stormwater related videos to communities for use in educating elected officials

TAC-4 Build Capacity of grassroots groups to ensure more resilient and environmentally responsible communities.

- 4.1 Support/Promote three workshops to address organizational development.
 - a. Watershed Education
 - d. Clean Water Future Campaign Opportunities
- 4.2 Create a strategy for implementing the Create a Clean Water Campaign at the community level
 - a. Identify which community groups are current members

TAC-5 Build Capacity of citizens to inform coastal resource management through the expansion of water quality and biological monitoring programs

- 5.1 Develop comprehensive strategy for volunteer water quality monitoring
 - a. Assess volunteer monitor needs
 - d. Determine agreed upon methodology
 - e. Increase the number of volunteer monitors testing for bacteria by 25%
- 5.2 Promote better coordination/policy changes for testing methodologies with ADEM and ADPH

EPI "EDUCATION AND PUBLIC INVOLVEMENT: GOALS/OBJECTIVES/SUGGESTED ACTIVITIES"

EP1-1: Improve business community understanding of how coastal natural resources and estuaries contribute to economic, cultural, and community well-being.

- 1.1 Conduct 15 tours for the private sector to introduce to watersheds and work going on as part of plan implementation (e.g. trash free waters Litter Gitters)
 - a. Recruit business participation through watershed planning
 - b. Prepare outreach packet to hand out during tour providing information about watershed characterization and condition
 - c. Engage participants in becoming watershed plan advocates

EPI-2: Increase business involvement and support for protecting the estuary/coast.

- 2.1 Create a minimum of 5 service opportunities to engage business "teams" in participating in restoration or clean-up work
 - a. Develop a "Watersheds 101" presentation capturing available opportunities and conduct presentations at Chambers of Commerce, civic clubs to recruit participation
- 2.2 Identify and connect business partners to a minimum of three existing projects celebrating the rich cultural heritage of the estuary.
 - c. Promote cultural/heritage signage/displays as a component of each project.

EPI-3 Improve community understanding of how coastal resources support what people value about living in coastal Alabama.

- 3.1 Give 50 presentations to community groups about the CCMP or issues impacting our coastal values.
 - a. Develop a library of presentations addressing the six values
 - b. Develop script/talking points to ensure delivery of consistent message
 - c. Develop short post presentation survey to assess effectiveness of message delivery
- 3.2 Host at least 2 workshops annually to educate citizens and property owners on how to protect and restore what people value most.
 - a. Re-establish the education and training taskforce to leverage workshop resources
 - b. Create an annual list of existing workshops to support and advertise
 - c. Develop a workshop evaluation protocol to inform future workshop planning
 - d. Conduct a community assessment of workshop needs on an annual basis
- 3.3 Encourage and coordinate 15 multi-partner festivals and events in the watershed to celebrate the cultural/natural connection.
 - a. Maintain an annual calendar of festivals to coordinate support and participation
 - c. Incorporate environmental themes into the Blessing of the Fleet.
 - e. Promote upstream connection to Mobile Bay throughout the greater Mobile Bay watershed.
- 3.4 Create and support recreational and educational programs that connect more people to local waterways.
 - a. Target underserved communities/children.
 - b. Solicit sponsorships to facilitate participation by underserved communities.
- 3.5 Create videos to document local heritage and culture for use in educating communities and the general public about how to best protect what is valued most
 - a. Compile the Heritage and Culture sections of watershed plans to identify video storylines
 - d. Produce video content
 - e. Evaluate reach and knowledge gained through survey

EPI-4 Increase community involvement in and support for stewardship, volunteer, and educational opportunities.

4.1 Educate various non-environmental organizations and the public on community stewardship programs and volunteer and educational opportunities through publications and social media.

- b. Maintain a central website for all events (or utilize CleanWaterFuture.com).
- c. Create a listserve/google group to connect CAC/CRC members.
 - d. Encourage all groups to share the repository and information gathered via their updates/newsletters.
 - e. Distribute electronic newsletter on a monthly basis to raise awareness about environmental programs and volunteer opportunities.

EPI-5 Promote public support of the goals and objectives addressed in the CCMP

5.1 Publicly support the development of Watershed Management Plans and their implementation in guiding coastal restoration and community resilience.

- a. Promote community input in watershed planning

5.2 Publicly support federal, state, and local regulatory changes to improve overall management and enforcement and to provide local government with authority needed to protect natural resources.

- b. Provide public comment on new and updated regulations, ordinances, bills as they are developed.
- d. Initiate one letter writing campaign to encourage locally elected officials to participate in watershed planning and implementation.

5.3 Publicly support the establishment of local controls and standards to protect stream and wetlands.

- a. Actively monitor watershed planning and provide comment on completed plans (Mississippi Sound Complex, Wolf Bay).

BUDGET OVERVIEW: 2018-2019

Each year the MBNEP receives an allocation from EPA to support activities geared toward achieving the objectives of the CCMP. EPA requires that the funding provided as part of a “cooperative agreement” be matched with non-federal dollars in a 1:1 ratio, either in cash or in-kind valuation. This match may be in the form of cash investments, donated property valuation, or in-kind equipment, professional, or volunteer services (see Match section). The MBNEP Budget below delineates anticipated expenditures for the next year. Note: This budget is based on receipt of **\$600,000 from US EPA** and **\$ in state and local funds**.

Activity	Year U1: 2018-2019
Estuary Status and Trends	20,000
Coastal Monitoring	20,000
Watershed Restoration Monitoring	
Sediment Studies (Federal RESTORE)	
Ecosystem Restoration and Protection	20,000
General Watershed Implementation Reserve	20,000
D'Olive Watershed Restoration	
Fowl River Watershed Restoration	
Watershed Restoration Planning (Federal RESTORE)	
Dauphin Island Watershed Restoration-Planning	
Tensaw Applache Watershed Restoration- Planning	
Mobile Bay Watershed Conservation (HWC)	
Three Mile Creek Watershed Restoration (Federal RESTORE)	
Technical Assistance and Capacity Building	7,500
Citizen Science/Volunteer Monitoring	2,500
Conservation Corps	2,500
Municipal Staff Support/Training	2,500
Education and Public Involvement	74,541
Management Conference Support/Cultivation	4,000
Newsletter	8,000
Signage	5,000
Public Outreach: Clean Water Future Campaign	15,041
Public Outreach: Social Media, Website, Video	30,000
Special Events	7,500
Promotional SWAG	5,000
Management and Program Administration	832,047
Program Delivery/Operation	707,601
Indirect Charges	124,446
Grand Total EPA Budget	954,088

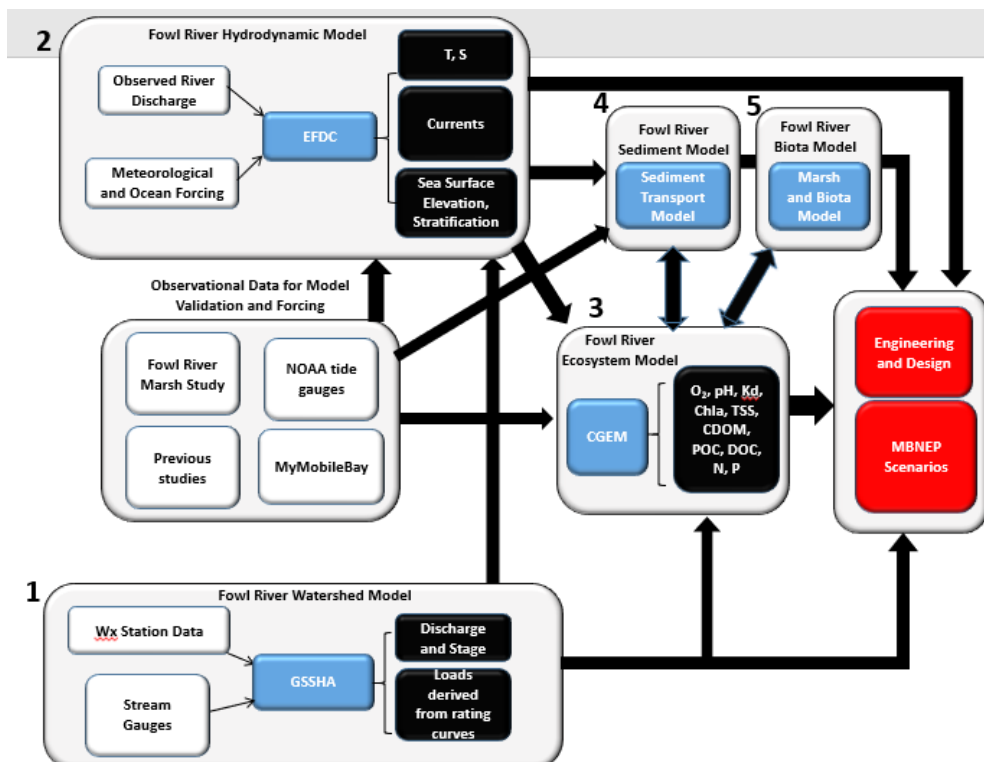
EPA Annual Appropriation	600,000
Match (Projected)	354,088
Total Available Budget	954,088

Project Details: Estuary Status and Trends







Activity	Year U1: 2018-2019	Past Year EPA Funding Available	External Funding Available	Total
Estuary Status and Trends	20,000	-	378,844	398,844
Coastal Monitoring	20,000			20,000
Watershed Restoration Monitoring			\$ 55,844	55,844
Sediment Studies (Federal RESTORE)			\$ 323,000	323,000

As part of building a robust monitoring program, the SAC is charged with developing recommendations for what research is needed to better understand our estuarine system; identifying what baseline gaps exist and developing those (particularly in the most- and least-stressed habitats/watersheds); determining what other needs exist in relation to the six things citizens value most; and developing decision-support tools to facilitate citizen access these data sets.

Throughout the implementation of the Updated Comprehensive Conservation and Management Plan for 2018-2023, the SAC will build a Watershed Condition Index for coastal Alabama using the biological condition gradient framework developed during the first five years of the CCMP implementation. State and local resource managers will pursue development of a long-term monitoring program. In addition, the SAC will pursue opportunities to establish baselines and other science necessary to support comprehensive watershed planning and restoration and will be engaged in the development of an Ecosystem Model that can be used across watersheds as each moves into restoration.



EST: COASTAL MONITORING PROGRAM

Project Number	EST1401
Title	Coastal Monitoring Program
Values Supported	     
Purpose	Increase understanding of how to monitor estuary health; identify biological indicators; and incorporate into a coastal biological monitoring program.
Outputs/Deliverables	Plan for establishing long-term ecological monitoring for Coastal Alabama for habitats that support what people value most, including beaches, intertidal marshes and flats, streams, rivers, riparian buffers and fresh water wetlands; a first edition Watershed Condition Index and implementation plan; and Establishment of data repository
Outcomes	Increase knowledge about science, monitoring, habitat management, and restoration of the Mobile Bay estuarine environment; Increase community ownership and involvement in local environmental protection activities
Clean Water Act Relevance	Improve water quality monitoring, support TMDL implementation, improve monitoring of wetland function and coverage
Year 1 (2018-2019)	\$ 20,000
Other Funding	\$ 0
Total Available	\$20,000
Match/Leverage	US EPA, ADEM, Science Advisory Committee
Lead/Partners	ADEM/MBNEP SAC, US EPA

Progress to Date:

During the first five years of RESPECT THE CONNECT implementation, the SAC created a monitoring framework to guide individual subwatersheds in the Mobile Bay watershed in standardizing their restoration monitoring to answer these questions: What, if any, changes are there in the water quality, sedimentation, flow, biology, and habitat quantity and quality as a result of restoration efforts and management plan implementation? How are potential ecosystem health indicators related to stressors and ecosystem functions/services? And, what is the long-term status of the biological condition in the Mobile Bay watershed?

The recommended protocols in this framework will result in standardized data collection for restoration efforts throughout Mobile and Baldwin Counties, allowing comparisons both temporally and spatially, improved decision making, and data preservation for future use. The monitoring program outlined within this framework is incorporated into all watershed management plans and restoration proposals and contracts. Ensuring utilization of this framework uniformly across all restorations and watersheds in Mobile and Baldwin counties will allow an interconnected network of data that can improve understanding of the processes of Mobile Bay as a whole. This will also serve as a model for future efforts across the Gulf Coast in developing larger, regional networks, including those envisioned by the Gulf of Mexico Alliance, the

National Oceanic and Atmospheric Administration, and the Gulf of Mexico Coastal Ocean Observing System. To achieve these goals the monitoring framework has been implemented as follows:

- 1) As part of each restoration project, the framework is referenced and implemented as applicable to the objectives of the project;
- 2) Long-term monitoring recommendations in each watershed management plan conforms with the framework;
- 3) MBNEP coordinates data synthesis to develop tools and products for assessment of restoration success, adaptive resource management, and baseline establishment;
- 4) MBNEP coordinates the periodic reporting of monitoring data in outreach products to communicate status and trends both at the watershed scale as well as estuary-wide.

Much of the EPA funding invested in this effort has been used to coordinate SAC activities aimed at the development of this monitoring framework and ensuring its integration into other CCMP activities. By the end of the fiscal year, a State of the Bay report will be produced to communicate the results of implementing this framework for the first five-year period of the CCMP.

Plans for the Coming year:

One aspect of the monitoring framework includes a recommendation that data be housed within a regional partner to facilitate consistency, development of metadata, and promote public access to the data. Establishing a regional data repository will encourage integration within larger monitoring programs, expanding the context of the restoration effort and subsequent monitoring. This will also promote more research and data analysis, thereby improving our understanding of system function and management capabilities. As part of these recommendations metadata should be in ISO 19115-2 standard format. Utilizing a nationally recognized metadata standard will encourage data utilization across Mobile Bay and within larger regional data analyses and inventories.

Incorporating historical datasets to obtain a longer time series for analysis of system status and trends is encouraged; however, such datasets should be utilized in context and not applied beyond the scope of the original sampling.


In the next year, the Science Advisory Committee (SAC) will undertake an assessment process for establishing a data management strategy for coastal Alabama which will include determining an appropriate repository for data. In addition, through the SAC, coastal monitoring will continue as part of watershed planning, including the creation of baseline data for target watersheds to aid in measuring future restoration success.

Related to restoration efforts, MBNEP will engage contractors to continue to develop baseline and post restoration monitoring for project success in the D'Olive Watershed. In addition, it will continue to coordinate the development of a comprehensive Ecosystem Model for the Fowl River Watershed.

Objectives for 2018-2019 year:

1. Continue establishment of coastal data repository at DISL.
2. Continue compilation of data on watersheds.
3. Continue to build Watershed Condition Index in D'Olive Watershed

EST: WATERSHED SEDIMENT STUDIES

Project Number	EST1402
Title	Comprehensive Coastal Sediment Loading Analysis Initiative
Values Supported	
Purpose	Establish quantitative baselines of sediment transport in coastal watersheds to inform and measure progress in planning.
Outputs/Deliverables	Sediment Analysis Reports for Fowl River Watershed, and one watershed to be determined
Outcomes	Improve understanding of sources of sedimentation in tributaries of the Mobile Bay estuarine system
Clean Water Act Relevance	Improve water quality monitoring, support TMDL implementation
Year 1 (2018-2019)	
External Funding	\$ 323,000 Federal RESTORE Act
Total Available	\$ 323,000
Match/Leverage	\$ 34,500 (GSA)
Lead/Partners	Geological Survey of Alabama/MBNEP

Progress to date:

The Mobile Bay National Estuary Program has partnered with Geological Survey of Alabama to characterize land use, erosion, and sedimentation in coastal watersheds to identify sources of sediment and to establish baseline data and sedimentation rating curves useful in watershed planning. GSA utilizes modeling techniques to determine bed and suspended sediment loads and identifies point sources of sediment, including man-made and natural drainage ways. Monitoring is based on precipitation and resulting stream discharge and includes basic field acquired physical and water-quality parameters. These data will be used to determine impacts of land-use change and to focus resources in areas of greatest need for remedial action.

At present baseline sediment studies have been completed for Fowl River, Bayou La Batre, West Fowl Tensaw-Apalachee (in development), Fish River, and Wolf Bay. This program will continue using external funding.


Plans for the coming year:

The protocol of performing sediment loading analyses to inform watershed management planning efforts has been adopted by the Mobile Bay NEP Project Implementation Committee and incorporated into the CCMP five-year Ecosystem Restoration and Protection Strategy. During the coming year, sediment studies will be undertaken for the following:

Objectives for 2018-2019 year:

1. Complete sediment studies for Tensaw-Apalachee complex
2. Initiate sediment studies for Fly Creek, Deer River, Bayou Sara, Little Lagoon

EST: WATERSHED RESTORATION MONITORING

Project Number	EST1405
Title	Restoration Project Monitoring
Values Supported	
Purpose	Generate data necessary to measure from project results and determine ecosystem response
Outputs/Deliverables	
Outcomes	Improve watershed function and resilience
Clean Water Act Relevance	Improve water quality monitoring, support TMDL implementation, improve wetland function.
Year 1 (2018-2019)	\$ 25,000
External Funding	\$23,819
Total Available	\$ 23,819
Match/Leverage	
Lead/Partners	

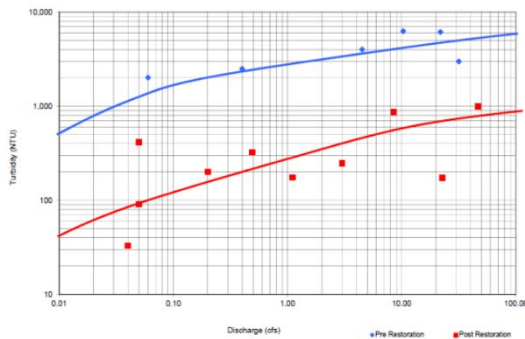


Figure 6.—Measured turbidity and stream discharge during the pre- and post-restoration monitoring periods at Joes Branch site JB6.

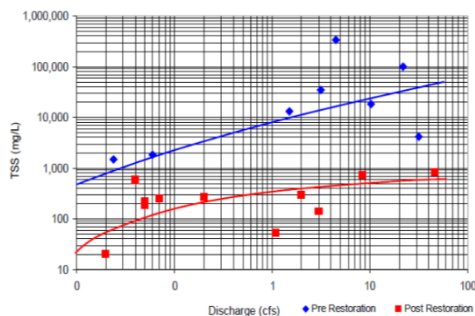


Figure 9.—Measured total suspended solids and stream discharge during the pre- and post-restoration monitoring period at Joes Branch site JB6.

Progress to date:

One of the ultimate goals of the extensive restoration work occurring throughout the D'Olive Watershed is to remove these streams for the State's list of impaired waterbodies, or the 303(d) List. In order to accomplish this goal, the Alabama Department of Environmental Management requires sufficient core indicator (based on impairments) sampling frequencies to meet data quantity and quality requirements as outlined in Alabama's Listing and Assessment Methodology so impaired waterbody listing/delisting decisions can be made. In 2016, ADEM began collecting water quality data to test its methodology for using reference streams as indicators of "natural" sediment transport for stream de-listing purposes. ADEM is monitoring suspended sediment utilizing FTS automatic samplers installed in conjunction with a USGS gauging station at D'Olive Creek at Bayview (site of current YSI X2 Sonde), and Tiawasee Creek at Bayview (site of current YSI X2). This monitoring is in addition to ongoing monitoring being undertaken as part of the restoration program. Monitoring in this watershed will continue for the next two years.

As part of the Fowl River watershed restoration effort, the tip of Mon Louis Island was restored in 2016. Monitoring of vegetation, shoreline, water depth up to 1800 feet offshore is ongoing and will continue for the next two years to measure this project success. Based on monitoring results, funding has been kept in reserve for additional project monitoring to meet permit requirements.

Plans for the coming year:

Restoration monitoring in D'Olive and Fowl River watersheds will continue.

PROJECT DETAILS: ECOSYSTEM RESTORATION

Activity	Year U1: 2018-2019	Past Year EPA Funding Available	External Funding Available	Total
Ecosystem Restoration and Protection	20,000	-	5,723,131	5,743,131
General Watershed Implementation Reserve	20,000		\$ 20,000	40,000
D'Olive Watershed Restoration			\$ 2,182,569	2,182,569
Fowl River Watershed Restoration			\$ 710,032	710,032
Watershed Restoration Planning (Federal RESTORE)			\$ 2,542,667	2,542,667
Dauphin Island Watershed Restoration-Planning				-
Tensaw Applache Watershed Restoration- Planning			\$ 6,025	6,025
Mobile Bay Watershed Conservation (HWC)			\$ 261,838	261,838
Three Mile Creek Watershed Restoration (Federal RESTORE)			\$ 17,430	17,430

Ecosystem restoration refers to returning a damaged ecological system to a stable, healthy, and sustainable state. Although it is impossible to return an ecosystem to the exact same condition as prior to disturbance, restoration to improve ecosystem function and service delivery will contribute to community health and well-being, protection against sea level rise, economic sustainability, recreation, and community quality of life.


The conservation, restoration, and/or protection of coastal watersheds with a focus on freshwater wetlands; streams, rivers and associated riparian buffers; and intertidal marshes and flats continues to be the focus of the Updated CCMP for 2018-2023. To ensure all restoration efforts are based on science and are part of an overall management program, a precursor to restoration efforts will be the creation of comprehensive watershed management plans (WMPs) at the 12-digit Hydrologic Unit Code scale. All watershed plans will be based on U.S. EPA guidance, addressing the following key elements:

- Identification of causes of impairment.
- Estimation of pollutant load reductions expected from restoration/management measures.
- Description of non-point source reduction measures/critical areas where those measures will take place.
- Estimation of the amount of financial support needed to implement plan recommendations, including monitoring.
- Creation of an outreach and education plan to increase residents' understanding of restoration measures and to engage them in long-term implementation of the plan.
- Schedule for implementation, key implementation milestones, and implementation evaluation criteria.

The State of Alabama has prioritized funding from the NFWF Gulf Environmental Benefits Fund and federal RESTORE dollars to develop of WMPs for all of the State's tidally-influenced watersheds. MBNEP has recruited assistance from Project Implementation Committee (PIC) partner agencies and municipalities funded by the MBNEP to manage WMP development and assist in development and evaluation of Requests for Qualifications to select engineering/planning contractors.

In addition to watershed planning and restoration, the MBNEP PIC has identified priorities for increasing the amount of living shorelines throughout our two coastal counties and the number of public access points to facilitate connections to our coastal waters and open spaces.

ERP: GENERAL WATERSHED IMPLEMENTATION

Project Number	ERP1400
Title	General Watershed Implementation
Values Supported	
Purpose	To support watershed management plan (WMP) initial implementation activities.
Outputs/Deliverables	Signage, outreach materials, other
Outcomes	Improved watershed management at local scale.
Clean Water Act Relevance	Improve water quality monitoring, support TMDL implementation, improve wetland function.
Year 1 (2018-2019)	\$20,000
External Funding	\$20,000
Total Available	\$40,000
Match/Leverage	
Lead/Partners	MBNEP

Progress to date:

With intensive watershed management planning ongoing, MBNEP is committed to WMP preparation and implementation. Typically, once the WMP is published, outreach materials and events, such as case statements, road signage, special events, and other materials requiring start-up costs are incurred as plans move from the page to implementation. This reserve has been established to assist with initial plan implementation costs.

To date the following plans have been completed and have begun implementation:

D'Olive Watershed, Fowl River Watershed, Three Mile Creek Watershed, Dog River Watershed Complex, Bon Secour Watershed Complex, Weeks Bay Watershed Complex, Bayou La Batre Watershed.


Plans for coming year:

In the coming year, reserve funds will be available to catalyze implementation of the following watershed plans.

2018-2019 Objectives:

1. Support implementation of three WMPs (Dog River, Bon Secour, Bayou la Batre)

ERP: D'OLIVE WATERSHED RESTORATION

Project Number	ERP1401
Title	D'Olive Watershed Restoration
Values	
Purpose	Continue restoration of D'Olive Watershed with goal of removal from the State's 303(d) List and reduction in sedimentation being transported downstream to D'Olive Bay
Outputs/Deliverables	Stabilization/Restoration of degraded stream segments, riparian zones, and downstream wetlands in the D'Olive Watershed
Outcomes	Improved ecosystem function and protection; Improved community management of ecosystem restoration and protection activities.
Clean Water Act Relevance	Improve water quality monitoring, support TMDL implementation, improve monitoring of wetland function and coverage
Year 1 (2018-2019)	\$
External Funding	\$2,182,569 NFWF GEBF
Total	\$2,182,569
Match/Leverage	NFWF GEBF, Alabama Department of Transportation, Cities of Daphne, Spanish Fort, private property owners
Lead/Partners	NFWF; MBNEP/ Baldwin County, City of Spanish Fort, City of Daphne, Alabama Department of Transportation, Alabama Department of Conservation and Natural Resources, Geological Survey of Alabama, private property owners

Progress to date:

Restoration of the D'Olive Watershed began in 2012 and continue today. The status of MBNEP contracted work is listed below:

D'Olive Watershed Restoration					Floodplain Reconnected (acres)	Erosion Reduction (tons/year)
Task	Project	Engineer	Contractor	Stream Length (ft)		
1.1	JB SWMF	Thompson	Southern Exc		1	
1.2	J SWMF	Thompson	Southern Exc		1	
1.3	J4-1	Thompson	Southern Exc	700	2	300
1.4	J4-2	Thompson	Southern Exc	400	1	100
1.5	JA	Thompson	Southern Exc	600	1	200
1.6	JB	Thompson	North State Enviro	1,600	4	400
2.1	SWMF - Lake	ISE				
2.2	D10-1	Terminated				
2.3	D4-D6	GMC	North State Enviro	2,680	10	1,800
2.4	DA3	Volkert	North State Enviro	1,000	7	600
2.5	DAE	ISE	Southern Exc	420	4	300
2.6	DAF	Mott		360	1	100
2.7	DAF-1	Mott		200	1	100
2.7	DAF-1A	GMC	North State Enviro	490	2	250
	Tiawasse	Volkert		900	4	400
3.1	TC1	GMC	North State Enviro	600	2	200
3.2	TC2	GMC	North State Enviro	550	2	200
3.2	TC2-Trib	GMC	North State Enviro	570	1	100
Total				11,070	44	5,050



Greater D'Olive Creek restoration partners include the National Fish and Wildlife Foundation; the cities of Daphne and Spanish Fort, Baldwin County, the Geological Survey of Alabama, Alabama Department of Environmental Management, Alabama Department of Conservation and Natural Resources, Auburn University/Alabama Cooperative Extension System, MBNEP, the Dauphin Island Sea Lab, and property owners.







Plans for the coming year:

As the fifth year of D'Olive Watershed restoration continues, MBNEP will continue to work with the City of Daphne to assess project progress while also looking for opportunities to create additional stormwater storage capacity. In addition, opportunities to leverage existing funds will be pursued through use of ADEM 319 funds, ALDOT, and other potential fine related sources.

Objectives for 2018-2019 year:

1. Achieve substantial completion of remainder of D'Olive Watershed stream restoration program, including DAF, DAF-1, and installation of stormwater management facilities

ERP: FOWL RIVER WATERSHED: RESTORATION

Project Number	ERP1403
Title	Fowl River Watershed Restoration
Values Supported	     
Purpose	Stabilize spits in the transition zone of the river to mitigate routine impacts, including, but not limited to, boat wakes, maintenance of hydrologic flow, and re-establishment of critical fisheries habitat and storm protection measure for Fowl River
Outputs/Deliverables	Project in planning; deliverables will be based on recommendations from the Fowl River Marsh health study.
Outcomes	Improved ecosystem function and protection; improved community understanding of ecosystem restoration and protection activities.
Clean Water Act Relevance	Improve monitoring of wetland function and coverage; Support water quality standards
Year 1 (2018-2019)	\$ 0
External Funding	\$710,032 NFWF
Total	\$710,032
Match/Leverage	
Lead/Partner	MBNEP/Private property owners



Progress to date:

With Fowl River Watershed sediment analysis and WMP complete and the restoration of the erosion-impacted northern tip of Mon Louis Island nearing completion, attention turns to monitoring the north end restoration and implementing WMP recommendations.

Marsh Health Study Engineering for

Shoreline Stabilization of Four Spits. With restoration of four erosion-impacted, salt marsh-covered spits a priority recommendation, MBNEP has secured NFWF Gulf Environmental Benefit Fund grants to initiate a marsh health study to investigate why salt marshes in the transitional zone between brackish and fresh water-dominated areas appear to be degrading from interior to exterior portions of the marsh. This marsh study, in full swing, will inform future restoration and shoreline stabilization efforts elsewhere. Although



funding has been secured to develop engineering plans to stabilize shorelines surrounding these degraded land forms, the question of how to reduce unintended consequences has led to the engineering being delayed. The expectation is that the results of the marsh health study will steer restoration toward the land areas which will benefit most from long-term stabilization.

The marsh health study includes an assessment of marsh condition, investigation of stressors underlying observed degradation, and allocation of labor among SAC members willing to participate in the study. Their efforts are being informed by the development of a hydrologic model and a hydrodynamic model to ensure project location and design success.

Plans for the coming year:

The SAC anticipates delaying the preparation of an RFQ for qualified coastal engineering and planning firms to develop engineering plans for stabilization of shorelines around the transitional zone spits until a hydrodynamic model is developed to inform locations of future restoration.

Members of the Fowl River Marsh Health study team have proposed that a hydrodynamic model needs to be added to the assessment study to compile and apply the on-the-ground data to understand current and predict future patterns of change that will guide restoration plans. The modeling framework should include components of the current study and other available data for a holistic depiction of future response to dynamic condition in the system (as opposed to current sampling that is static).






Rationale for addition of a modeling component

- Engineering and Design phase (which was originally proposed to follow our field study) will require modeling to:
 - Facilitate design of the restoration, e.g. raising the elevation of the marshes or armoring the shoreline to compensate for (SLR/ erosion or subsidence)
 - Evaluate unintended consequences, e.g. creating erosional hotspots downstream of armored shorelines; or altering physics, chemistry, and biology (we need to know this info BEFORE we begin; SAC passionate about this b/c we are none for us in the business of wasting money or time; starving scientists know this value)
 - Predict the expected "life" of the restoration project in the face of other environmental change, e.g. sea level rise; changing watershed land-use; altered hydrology/hydrography
- Modeling will fundamentally support NEP goals to:
 - Holistically evaluate impacts of other proposed restoration and conservation projects as outlined in the Fowl River WMP
 - Allow better management, mitigation, and adaptation to locally relevant needs.

Objective for 2018-2019 year:

1. Continue marsh health study to investigate observed patterns of degradation in the transitional zone of East Fowl River.
2. Develop hydrodynamic model for the Fowl River Watershed to inform engineering and design and appropriate siting of shorelines stabilization project.

ERP: WATERSHED RESTORATION PLANNING

Project Number	ERP 1405
Title	Watershed Restoration Planning
Values Supported	    
Purpose	To promote the wise stewardship of the intertidal watersheds and foster improved fish and shellfish productivity in coastal estuaries
Outputs/Deliverables	Watershed Management Plan
Outcomes	Improved ecosystem function and protection; Improved community management of ecosystem restoration and protection activities; expanded community engagement and ownership
Clean Water Act Relevance	Support water quality standards; improve wetland function and coverage
Year 1 (2018-2019)	\$ 0 (Revised)
External Funding	\$2,542,667 Federal RESTORE Act
Total	\$2,542,667 Fed RESTORE partial funding
Match/Leverage	
Lead/Partners	MBNEP/ADCNR/City of Foley/Other

Progress to date:

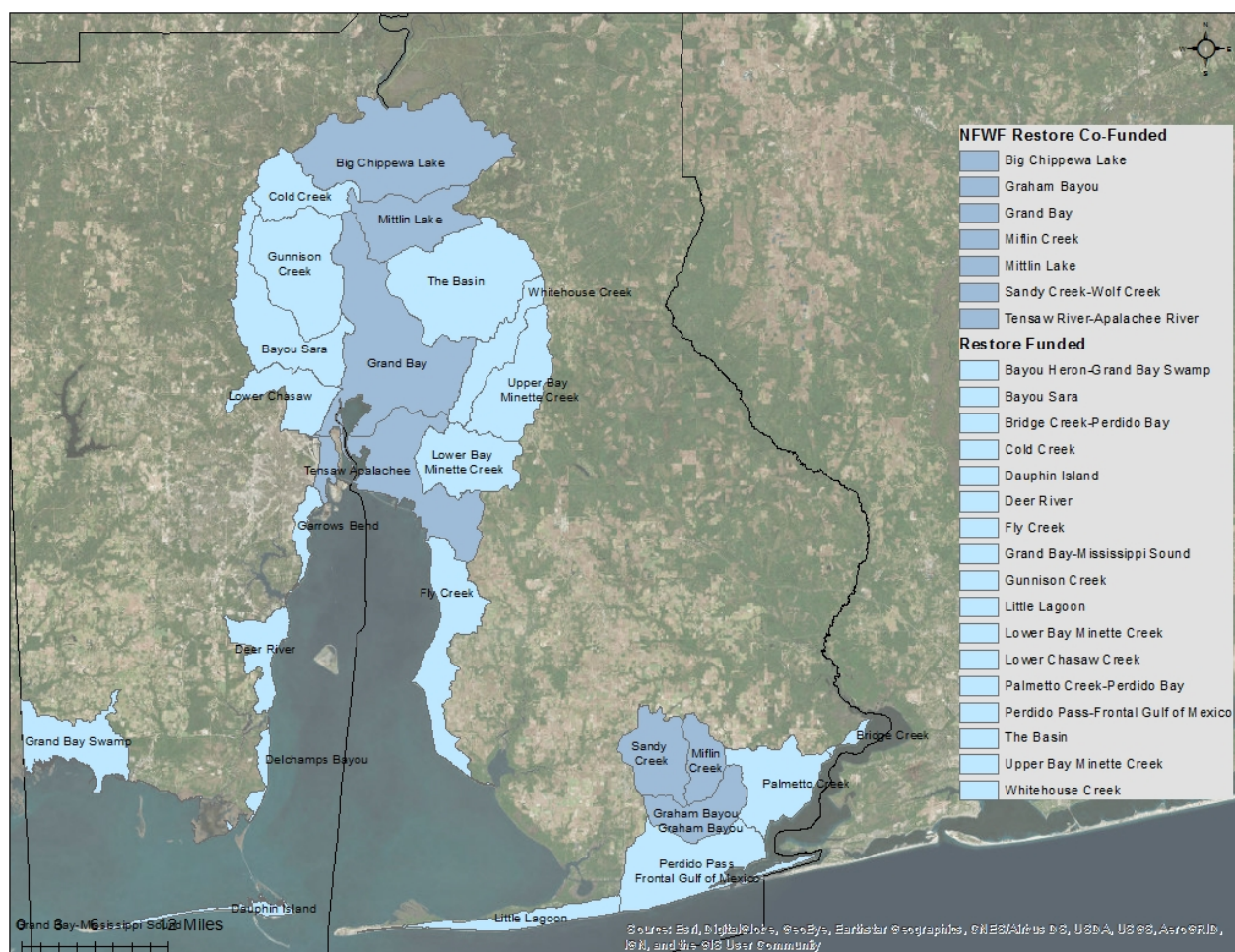
The Coastal Alabama Comprehensive Watershed Restoration Planning Project is focused on improving the quality of the water entering Mobile Bay, as well as the Gulf of Mexico. WMPs will be produced for the following coastal Alabama watersheds in Mobile and Baldwin counties, including: Garrow's Bend; Deer River; Delchamp's Bayou; Grand Bay Swamp; Dauphin Island; Little Lagoon; Perdido Pass/Gulf Frontal; Bayou Sara; Lower Chasaw; Western Delta; Bay Minette Creek (Upper, Lower, and Whitehouse); Fly Creek; Bridge Creek; Palmetto Creek; and two additional WMPs will be produced that will be complemented by the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund (NFWF GEBF): the Tensaw-Apalachee and Wolf Bay complexes. GEBF funds have been awarded to produce data gathering and analysis and project scoping as a Phase 1 prior to development of the WMPs.

When developing the five-year ecosystem restoration strategy in 2012, MBNEP's Project Implementation Committee (PIC) adopted a protocol of watershed management planning at the 12-digit HUC level to guide science-based project implementation. To develop an initial "short list" of priority watersheds, MBNEP identified 22 12-digit HUCs in Baldwin and Mobile counties. These watersheds were analyzed and prioritized based on the following evaluation criteria: urbanization; watersheds for which Alabama Department of Environmental Management (ADEM) surveys, Geological Survey of Alabama (GSA) sediment studies are conducted, or current or outdated WMPs have been completed; impaired waters which are 303-d listed, for which Total Maximum Daily Loads (TMDLs) have been determined, National Pollution Discharge Elimination System (NPDES) permits (indicating potential point sources of pollution) are issued, and Toxic Release Inventory (TRI) sites (where potentially hazardous materials are stored or released); protected lands, acquisition priorities, and Outstanding Alabama Waters; locations of ADEM long-term monitoring stations.

The PIC then worked to develop an inventory of resources and needs for each of the prioritized watersheds to guide project implementation. Additionally, the PIC agreed to include any other HUC-12 watershed with direct tidal influence on the priority watersheds list because they have a demonstrable connection to the resources potentially injured during the Deepwater Horizon incident, elevating their priority for any possible settlement funds. The following protocol was established by the PIC for undertaking planning and implementation activities in priority watersheds 1) a GSA Observational Data analysis as a precursor to watershed management planning, 2) a comprehensive watershed management plan as a precursor to project implementation, and then 3) project implementation prioritized and prescribed by a WMP conforming to the EPA's nine key elements. The PIC also allowed for an "opportunity caveat," which expresses that in some cases, funding or other opportunities will present themselves outside of the approved protocol that will lead to project implementation (including the grouping of multiple HUC-12 watersheds under one planning effort when it makes sense).

In 2013 and 2014, NFWF's GEBF funded development of watershed plans for eight of the identified priority watersheds (that include 16 tidally-influenced 12-digit HUCs prioritized for planning). These watersheds included: Fowl River; Bayou la Batre; Bon Secour River; West Fowl River; Dog River (including Lower and Upper Dog River and Halls Mill Creek); Tensaw-Apalachee (including The Basin, Grand Bay, and the Tensaw-Apalachee)¹; Fish River (including Lower, Middle, and Upper Fish River); Wolf Bay (including Sandy, Mifflin, and Grahams Creek)¹.

The MBNEP PIC and SAC have provided guidance throughout the watershed planning process. This included recommendations to group additional watersheds into the NFWF-funded planning efforts to take advantage of a determined geographic/community nexus and create economies of scale (PIC recommended the additions of Skunk Bayou and Oyster Bay in the Bon Secour WMP and Magnolia River in the Fish River WMP). Additionally, due to the complexity of the Mobile-Tensaw Delta system, the PIC initiated a scoping process to lay the groundwork for the forthcoming Tensaw-Apalachee WMP by redefining the project area that should be covered as part of the WMP. The result of this effort was a recommendation to replace six non-tidal watersheds from the initial priority watersheds list with seven additional HUC-12 watersheds determined to have more direct influence on the intertidal zone of the Mobile-Tensaw Delta system.








Plans for the coming year:

The expected start date for this project is July 1, 2018, with a subrecipient agreement being executed with MBNEP by August 1, 2018. It is expected that certain efficiencies can be achieved by completing all the watershed plans in a similar timeframe. Because of such opportunities for efficiency, it is anticipated that these watershed plans can be completed by June 30, 2022 (four years).

Objectives 2018-2019:

1. Complete two watershed management plans (Wolf Bay, Mississippi Sound)
2. Begin three watershed management plans (Fly Creek, Garrows Bend, Bayou Sara)

ERP: THREE MILE CREEK WATERSHED: RESTORATION

Project Number	ERP 1404
Title	Three Mile Creek Restoration
Values Supported	    
Purpose	Improve water quality and provide public access to watershed including a unique backwater environment within a highly urbanized, traditionally underserved area of the City of Mobile
Lead/Partner	MBNEP/US ARMY CORPS, USFWS, ADCNR, ADEM, MAWSS City of Mobile, Mobile County, Gulf Coast Asphalt, Inc.
Outputs/Deliverables	Drainage area delineation- Toulmins Spring Branch; Drainage Improvement plan- Toulmins Spring Branch; 10 Conservation Corps members; Baseline monitoring data-Twelve Mile Creek
Outcomes	Improved ecosystem function and protection; Improved community understanding of ecosystem restoration and protection activities.
Clean Water Act Relevance	Assist with TMDL implementation; Improve monitoring of wetland function and coverage
Year 1 (2018-2019)	\$
External Funding	\$17,430
Total	\$17,430
Match/Leverage	MAWSS, Mobile County, City of Mobile , Waterkeeper Alliance, , US Army Corps of Engineers, US Fish and Wildlife Service, US EPA-Climate Ready Estuaries; NY Hudson River Trust

Progress to date:

Three Mile Creek was first placed on the State's 303(d) List of Impaired Water Bodies in 1996 for organic enrichment (OE) and low dissolved oxygen (DO) and added for pathogens in 2004. A Total Maximum Daily Load (TMDL) for OE/DO was then developed and approved in 2008. Municipal collection system failures and urban stormwater runoff were identified in the TMDL as the primary sources of impairment within the watershed.

A decade ago, urban development and decaying sewer infrastructure led to increased incidences of sanitary sewer overflows throughout the watershed. Since that time MAWSS has significantly improved the sanitary sewer lines and lift stations in the watershed leading to its release from a Federal Consent Decree. The Creek is currently listed for pathogens downstream of Mobile Street, an unnamed (midtown) tributary is listed for nutrients, and Toulmin Springs Branch remains listed for nutrients and ammonia.

The Three Mile Creek Watershed Plan includes the following objectives:

- Improve water quality by reducing nonpoint source pollution (including stormwater runoff and associated trash, nutrients, pathogens, erosion, and sedimentation); reducing outgoing pollutant loads into Mobile Bay, and remediating and restoring past effects of waste disposal.
- Address sediment sources by restoring eroded stream banks and ensuring best management practice utilization at construction sites.

- Reduce the incidence and impacts of invasive species, including the island apple snails and Chinese tallow trees.
- Recommend/prioritize restoration opportunities (within strategies for implementation),
- Provide opportunities for increased public access, recreation, and ecotourism,
- Ensure equitable distribution of environmental burdens and assets in this diversely populated watershed,
- Identify vulnerabilities in the watershed from increased sea level rise, storm surge, and precipitation events related to climate change.
- Identify opportunities to mitigate future impacts of development in the watershed, where feasible.

Three Mile Creek Trail

In public outreach meetings related to development of a Comprehensive Watershed Management Plan for Three Mile Creek, a desire expressed commonly across the watershed was to establish a Greenway/Bicycle Trail to and connect communities from west of the University of South Alabama east to downtown Mobile and offer recreational and transportation opportunities. In 2014, the City of Mobile approached the MBNEP for assistance in developing a National Park Service Outdoor Recreation Legacy Program proposal to establish the first mile leg of the Greenway from Pecan Street in The Bottom to Lakeside/Tricentennial Park. In 2015, the City secured \$386,000 from this funder to design and construct this section of the Greenway with an exercise circuit course and energy-efficient LED lighting and contracted Dorsey and Dorsey to design it. Construction of the first leg of the trail is now complete as is the installation of a kayak launch at Tricentennial park, thanks to the Mobile County Health Department and funding it received through a Sybil Smith Trust Grant.

Coastal Alabama Conservation and Resiliency Corps

Established as a pilot project, the Coastal Alabama Conservation Corps was created to provide job opportunities to young adults from underserved communities with a focus on those living in the Three Mile Creek Watershed. With the pilot complete, two of the corps members are now interning for a local engineering firm, one is working for the State Port Authority, and one has agreed to continue working with the MBNEP to establish a Rain Barrel Installation Corps for the lower reaches of Three Mile Creek.

Twelve Mile Creek

The MBNEP has secured funding from the U. S. Environmental Protection Agency through the Gulf Coast Ecosystem Restoration Council and the RESTORE Act to facilitate stream restoration projects within the Twelve Mile Creek tributary. Twelve Mile Creek, one of six main tributaries within the Three Mile Creek Watershed, originates in the extreme southwestern portion of the watershed and flows through concrete armored channels, concrete culverts, and natural channels over three miles north and east from its headwaters to its confluence with Three Mile Creek at Municipal/Langan Park. The concrete armored channels prevent natural infiltration of stormwater to groundwater which results in increased water volume, flow velocity, and flooding in the stream channel. A major issue in unarmored reaches within the upper portions of Twelve Mile Creek tributary is stream-bank erosion. Sediment from channel and bank erosion has accumulated downstream, reducing creek water depth and the cross-sectional flow area, resulting in higher water flow velocities during storm events. This has led to further channel erosion and sediment transport to downstream lakes at Municipal/Langan Park, carrying pollutants including oxygen-demanding substances and nutrients. This project is currently in engineering and design.

Three Mile Creek Invasive Species Control Plan

Also funded by the EPA through the Gulf Coast Ecosystem Restoration Council and the RESTORE Act, an Invasive Species Control Plan for the Three Mile Creek Watershed is currently in development with expected delivery on December 31, 2018. This plan will provide a roadmap for controlling invasive, exotic nuisance species of plants and animals to conserve or restore the Watershed and improve water and habitat quality

Plans for the coming year:

In the coming year, MBNEP will continue to be involved in the implementation of the Three Mile Creek Watershed Management Plan through coordinating with the City of Mobile and its Mayors Task Force (made up of Local, State and Federal resource agencies) and with the 3MC Partnership, a local private sector group focused on creating a transformational corridor along the creek. MBNEP specific efforts will center around the improved stormwater management in Twelve Mile Creek through stream restoration/energy dissipation efforts, installation and management of 10 Litter Gitters throughout the watershed, and the creation of a Rain Barrel installation program in the lower part of the Creek, in an underserved area of Prichard.

Objectives 2018-2019 year:

1. Facilitate Conservation Corps Rain Barrel Program
2. Continue baseline monitoring for Twelve Mile Creek
3. Initiate construction of a stream restoration in Twelve Mile Creek
4. Support continued development of the Three Mile Creek Trail
5. Develop and begin implementation of the Three Mile Creek Invasive Species Control Plan

ERP: MOBILE BAY WATERSHED CONSERVATION (HWC)

Project Number	ERP
Title	Mobile Bay Watershed Conservation
Values Supported	    
Purpose	To promote the wise stewardship of the Tensaw Delta and foster improved fish and shellfish productivity in coastal estuaries
Outputs/Deliverables	Acquisition of 10,000 acres of headwater habitats upstream of the Tensaw Delta
Outcomes	Improved ecosystem function and protection; Improved community management of ecosystem restoration and protection activities; expanded community engagement and ownership
Clean Water Act Relevance	Support water quality standards; improve wetland function and coverage
Year 1 (2018-2019)	\$
External Funding	\$261,838
Total	\$261,838
Match/Leverage	
Lead/Partners	MBNEP/AWF/AFRC

NEW:

The AL & Mobile Bay Basin Integrated Assessment of Watershed Health shows Mobile Bay Basin catchments not along large river corridors, in urbanized regions, or across the Black Belt display high connectivity to Mobile Bay and/or high Watershed Health Index scores (based on catchment land cover and physical, chemical, and biological attributes of stream ecosystems gathered from geospatial data sets and predictive modeling results). Headwater catchments in the Mobile-Tombigbee and Alabama basins, with total area of 20,022,518 acres, are important to maintaining hydrological integrity and comprise 75% of these basins, whose waters support the highest species diversity of states east of the Mississippi, second largest intact river delta in US, and ecosystem services provided by the Mobile Bay estuary.

MBNEP secured \$150,000 annually for two years to advance strategic protection of healthy habitat parcels in Mobile-Tombigbee and Alabama River basins, where 75% of catchments drain first and second order streams, key to the ecological health of the Mobile Bay estuary. We will develop a land protection atlas to identify priority parcels and possible funding sources for acquisition and protection, and then support Alabama Forest Resources Center efforts to secure upstream acreage.

Objectives 2018-2019

1. Development of a Mobile Basin Habitat Atlas identifying healthy, headwater habitat parcels in AL portions of HUCs 0315 and 0316, vetted by forestry resource manager to identify landowners amenable to selling or conservation easement, with a matrix of potential funding mechanisms.
2. Ten thousand acres of identified priority headwater habitats placed in conservation easement before conclusion of the grant period.

PROJECT DETAILS: TECHNICAL ASSISTANCE/ CAPACITY BUILDING



Activity	Year U1: 2018-2019	Past Year EPA Funding Available	External Funding Available	Total
Technical Assistance and Capacity Building	7,500	17,595	-	25,095
Citizen Science/Volunteer Monitoring	2,500	\$ 17,595		20,095
Conservation Corps	2,500			2,500
Municipal Staff Support/Training	2,500			2,500

Watershed-based, grassroots organizations are the cornerstone of community-based efforts to promote the wise stewardship of the water quality and living resources of Mobile Bay's estuarine waters. The mission of MBNEP is to provide the necessary tools to support those efforts, accomplished through the delivery of technical assistance, the building of capacity through development of outreach and decision support materials for their use, provision of specialized training and education opportunities, and engagement of volunteers in hands-on learning experiences that cultivate stewardship while improving the quality of Alabama's coastal resources. During the next fiscal year, MBNEP will support and help build capacity of these critical groups and other partners to successfully address our mission.

MBNEP will support a program that provides data while cultivating stewardship in volunteer monitors from grassroots organizations. Facilitation of the Coastal Alabama Clean Water Partnership will provide a neutral forum for bringing all stakeholders to the table to ensure that sources and impacts of non-point source pollution are addressed.

Outcomes from these activities will include increased knowledge about science, monitoring, habitat management, and restoration of the Mobile Bay estuarine environment and increased community ownership and involvement in local environmental protection activities.

TAC: CITIZEN SCIENCE/VOLUNTEER MONITORING

Project Number	TAC1401
Title	Citizen Science/Volunteer Monitoring
Values Supported	 
Purpose	To expand citizen stewardship of the estuary through voluntary water quality monitoring activities
Outputs/Deliverables	Train 20 Water Quality Monitoring volunteer monitors
Outcomes	Increase knowledge about science, monitoring, habitat management, and restoration of the Mobile Bay estuarine environment; Increase community ownership and involvement in local environmental protection activities
Clean Water Act Relevance	Improve water quality monitoring
Year 1 (2018-2019)	\$2,500
External Funding	\$ 0
Total	\$20,095
Past Year Funding	\$17,595
Match/Leverage	AWW
Lead/Partners	AWW/MBNEP, CAC

Progress to date:

Alabama Water Watch (AWW) is a citizen volunteer, water quality monitoring program covering all of the major river basins of the state. The mission of AWW is to improve both water quality and water policy through citizen monitoring and action. Established in 1992, AWW is a national model for citizen involvement in watershed stewardship, largely because of its three interrelated components: citizen monitoring groups, a university-based program, and a non-profit association.

AWW uses EPA-approved monitoring plans with a community-based approach to train citizens to monitor conditions and trends of their local waterbodies. With a “data-to-action” focus, AWW helps volunteers collect, analyze, and understand their data to make positive impacts. The AWW vision is to have a citizen monitor on every waterbody in Alabama. The goal of AWW is to foster the development of statewide water quality monitoring by:

- Educating citizens about water issues in Alabama and the world.
- Training citizens to use standardized equipment and techniques to gather credible water information.
- Empowering citizens to use their data to protect and restore their local waters.

In the coming year, MBNEP will improve community ability to participate in ecosystem-based management actions by engaging grassroots groups in collecting water quality and biological data that supports watershed

planning through expanded participation in Alabama Water Watch activities. The MBNEP Community Action Committee has identified a need for training opportunities to provide citizens with the knowledge and skills necessary for effectively participating in resource management decisions at the local, state, and federal levels. AWW workshops are envisioned as a likely component in this strategy.

Plans for the coming year:

In the coming year, MBNEP and the CAC will hold AWW workshops to train or recertify at least **20 volunteer water monitors**. Monitors will learn the principles of Alabama Water Watch and how to monitor and evaluate physical, chemical, and biological features of water. Workshops will be offered free of charge to coastal residents and qualify for continuing education units with Auburn University. Volunteer water monitor training will concentrate in the following areas:

- **Bacteriological monitoring:** Detect levels of E. coli and other coliform bacteria in water as indicators of contamination. Determine if water is safe for drinking, swimming, and aquatic life.
- **Water chemistry monitoring:** Test physical and chemical characteristics of water to determine pollution sources and long-term trends in water quality. Six parameters are measured and results can be compared with standards that define conditions for healthy waterbodies.

To further expand volunteer water quality monitoring efforts, the CAC has identified a need to develop a volunteer water quality monitoring strategy which would assess volunteer monitor needs, determine agreed upon methodology, strategies to increase the number of volunteer monitors testing for bacteria, and promoting better coordination and policy changes related to testing methodologies with ADEM and ADPH.


In addition, the CAC has identified a need for training opportunities to provide citizens with the knowledge and skills necessary for effectively participating in resource management decisions at the local, state, and federal levels. The CAC has identified training priorities as follows:

- Watershed Education;
- Stormwater runoff education, including how the MS4 permit works;
- Volunteer water quality monitoring;
- Volunteer biological monitoring;
- Volunteer shoreline monitoring; and
- Create a Clean Water Future Implementation.

Objectives 2018-2019:

1. Creation of a Comprehensive Volunteer Water Quality Monitoring Strategy
2. Train 20 citizens to undertake volunteer water quality monitoring.
3. Continue to support development of “Water Rangers” online data portal for volunteer data entry.

TAC: CONSERVATION CORPS

Project Number	TAC
Title	Conservation Corps
Values Supported	
Purpose	
Outputs/Deliverables	
Outcomes	
Clean Water Act Relevance	Improve water quality monitoring, Improve monitoring of wetland function and coverage
Year 1 (2018-2019)	\$2,500
Other Funding	\$ 0
Total	\$33,221
Past Year Funding	\$30,721
Match/Leverage	
Lead/Partner	MBNEP

Progress to date:

The purpose of the pilot Conservation Corps program undertaken by the MBNEP was to engage young adults from a highly urbanized area of the City of Mobile, AL, in connecting with their surrounding environment through education, conservation training and employment within the lower Three Mile Creek (TMC) watershed. The Mobile Bay National Estuary Program (MBNEP), the MLK Avenue Redevelopment Corporation (MLKARC) and the Student Conservation Association (SCA) joined to engage young adults in protecting the lower reaches of this watershed's publicly-accessible yet sensitive habitats through opportunities of gainful employment. One of the more enduring aspects of this pilot project was the community outreach undertaken by corps members to recruit members of a section of the Three Mile Creek Watershed where it crosses over to Prichard. This area has been identified in the WMP as highly susceptible to flooding, is burdened by high water bills, and is predominantly low income. Corps members installed rain barrels at 17 residences in their last three weeks of the program and during this time, provided insights into the need for many more.







Plans for the coming year:

In response to a continued desire on the part of these residents to have rain barrels installed, MBNEP will continue to pursue the establishment of a small corps to assist with the installation of rain barrels in this underserved area. A coordinator will be hired, an assessment of the existing rain barrel owners will be conducted and a recruitment program will be employed with an objective of installing an additional 100 barrels in this neighborhood. MBNEP is currently seeking funding from private sources to supplement the limited funding available to undertake this project. Barrels have already been donated for the program.

Objectives 2018-2019:

1. Install 10 rain barrels in lower reaches of Three Mile Creek.

TAC: MUNICIPAL STAFF SUPPORT/TRAINING

Project Number	TAC
Title	Municipal Staff Support/Training
Values Supported	     
Purpose	To build the capacity of municipal staff to better plan for and manage natural resources within the government setting
Outputs/Deliverables	20 municipal staff trained in use of hydrologic models
Outcomes	Improved management of coastal resources
Clean Water Act Relevance	
Year 1 (2018-2019)	\$2,500
Other Funding	\$
Total	\$2,500
Past Year Funding	
Match/Leverage	\$
Lead/Partners	MBNEP

NEW:

As watershed planning continues and hydrologic models are developed for all tidally influenced watersheds, it is imperative that these plans are institutionalized within local government to inform resource management decisions. To ensure these tools are used to the greatest extent possible, MBNEP will engage in a training program for local municipal staff.

Plans for the coming year:

1. One hands-on hydrologic model usage training with provision of subsequent modeling support

PROJECT DETAIL: EDUCATION AND PUBLIC INVOLVEMENT







Activity	Year U1: 2018-2019	Past Year EPA Funding Available	External Funding Available	Total
Education and Public Involvement	74,541	25,182	-	99,723
Management Conference Support/Cultivation	4,000			4,000
Newsletter	8,000			8,000
Signage	5,000			5,000
Public Outreach: Clean Water Future Campaign	15,041	\$ 13,502		28,543
Public Outreach: Social Media, Website, Video	30,000	\$ 11,680		41,680
Special Events	7,500			7,500
Promotional SWAG	5,000			5,000

Watershed-based, grassroots organizations are the cornerstone of community-based efforts to promote the wise stewardship of the water quality and living resources of Mobile Bay’s estuarine waters. The mission of MBNEP is to provide the necessary tools to support those efforts, accomplished through the delivery of:

- Field Trips that highlight coastal issues, possibilities
- outreach and decision support materials,
- specialized training and education opportunities, and
- volunteer engagement in hands-on learning experiences

These activities cultivate stewardship while improving the quality of Alabama’s coastal resources. During the next fiscal year, MBNEP will support and help build capacity of these critical groups and other partners to successfully “*promote the wise stewardship of the water quality and living resources of coastal Alabama.*”

EPI: MANAGEMENT CONFERENCE SUPPORT/CULTIVATION

Project Number	EPI1401
Title	Management Conference Support/Cultivation
Values Supported	     
Purpose	Sustain and expand stakeholder involvement in the implementation of the CCMP 2018-2023
Outputs/Deliverables	Four field events; Quarterly meetings of Management Conference Committees;
Outcomes	Improved community management of ecosystem restoration and protection activities; expanded community engagement and ownership
Clean Water Act Relevance	Support water quality standards; Improve water quality monitoring, Support TMDL implementation, Improve monitoring of wetland function and coverage
Year 1 (2018-2019)	\$4,000
Other Funding	\$ 0
Total Funds	\$4,000
Past Year Funding	
Match/Leverage	
Lead/Partners	MBNEP/All members of the management conference

Progress to date:

Education and involvement of the business community is key for the MBNEP in reaching its goals and objectives in the CCMP. Efforts to engage and inform key stakeholders of past efforts and future projects of the MBNEP are accomplished in various ways:

- Incorporate the “Create A Clean Water Future” (CCWF) branding broadly in local business practices to have those businesses become identifiable with that brand.
- Host breakfast meetings and “Lunch and Learn” presentations for civic organizations, business leaders, municipalities, and local media outlets to share scientific data and identify areas of concern, and introduce specific projects and priorities tailored to the individual groups.
- Conduct tours of critical areas of interest or concern to educate the private sector on the value of our coastal resources and the economic impact on our community.
- Motivate constituents to adjust current behaviors and practices to help preserve working waterfronts and fishing communities. Share watershed management plans and strategies to help ensure community commitment to the environment.

- Encourage and facilitate employee involvement in service opportunities to support the CCWF campaign. Facilitate strong communication among business leaders and environmental partners.







Plans for coming year:

Education, encouragement, and marketing campaigns are all part of the plan to build strong relationships and “buy-in” from local business leaders. These efforts will prove effective in providing the tools to support community-based efforts to promote wise stewardship of the water quality and living resources of the Mobile Bay and Delta.

Objectives for 2018-2019 year:

1. Host six tours, including but not limited to LID site visits, restoration projects, Litter Gitter site visits
2. Conduct 12 presentations
3. Continue implementation of CLEAN WATER FUTURE campaign
4. Implement strategy for engaging business sector in watershed planning
5. Develop a strategy for local government participation in watershed planning

EPI: SEMI ANNUAL NEWSLETTER







Project Number	EPI1302
Title	Semi Annual Newsletter
Values Supported	     
Purpose	Publish semi-annual newsletter to highlight emerging issues, project progress and other issues of interest
Outputs/Deliverables	2 Newsletters
Outcomes	Increase public awareness of environmental issues; Increased knowledge of environmental issues and stressors; Increased knowledge of activities being undertaken to protect estuarine resources
Clean Water Act Relevance	
Year 1 (2018-2019)	\$8,000
Other Funds	\$
Total	\$8,000
Past Year Funding	
Match/Leverage	
Lead/Partners	MBNEP, ADCNR State Lands Division

Raising environmental awareness involves translating the technical language of a natural science or related field into terms and ideas that a non-scientist can readily understand. It also involves doing it in a way that is entertaining and interesting to the public. The *Alabama Current Connection* is a joint newsletter published by the ADCNR State Lands Division - Coastal Section and the MBNEP to highlight current projects, management conference activities, and other issues of interest to coastal residents.

Objectives for 2018-2019 year:

1. Produce two newsletter magazines.

EPI: EDUCATIONAL/INFORMATIVE SIGNAGE

Project Number	EPI1303
Title	Educational/Informative Signage
Values Supported	     
Purpose	Educate community about watershed, ecosystem characteristics and project components
Outputs/Deliverables	Educational/Informative Signage at public locations adjacent to project sites
Outcomes	Increase public awareness of environmental issues
Clean Water Act Relevance	
Year 1 (2018-2019)	\$5,000
Other Funding	\$ 0
Total	\$5,000
Match/Leverage	
Lead/Partners	MBNEP

Progress to date:

As part of initial watershed plan implementation, MBNEP works with appropriate municipalities and counties to install street signage to educate people about what watershed they are currently in and how the watershed connects to the bay. To date these signs have been installed in the following watersheds:


- Three Mile Creek
- Fowl River
- Eight Mile Creek
- D'Olive Creek

In addition, MBNEP develops and installs interpretive signage at restoration sites where appropriate to educate visitors about where they are in the watershed, what makes up the surrounding ecosystem, and what types of restoration activity occurred. These signs have been installed at Helen Wood Park, Alligator Alley, Steele Creek Lodge, Dog River Park, and Brooks Park.

Plans for coming year:

1. Install watershed signage in Bayou La Batre, Weeks Bay, Bon Secour watersheds.
2. Promote cultural/heritage signage opportunistically as a component of each project

EPI: PUBLIC OUTREACH: CLEAN WATER FUTURE CAMPAIGN

Project Number	EPI
Title	Public Outreach: Clean Water Future Campaign
Values Supported	
Purpose	To educate the residents of Baldwin and Mobile counties about ways to decrease harmful stormwater runoff.
Outputs/Deliverables	A marketing campaign involving production of educational materials available on a website (www.CreateACleanWaterFuture.com) or distributed at community meetings and events.
Outcomes	Increased public awareness of environmental issues; increased knowledge of environmental issues and stressors.
Clean Water Act Relevance	
Year 1 (2018-2019)	\$15,041
Other Funding	\$ 0
Total	\$28,543
Past Year Funding	\$13,502
Match/Leverage	
Lead/Partners	MBNEP

Progress to date:

With stormwater runoff providing the number one source of pollution to American waters, MBNEP will continue to work with a Coastal Alabama Stormwater Team (CAST) to conduct a stormwater media campaign, Create a Clean Water Future, to encourage wise stewardship of our estuarine waters and raise awareness of the importance of clean water to the recreational and commercial uses of our waters, the economic consequences of poor stormwater management and the ensuing damage to our environments, the cost of prevention verses the cost of restoration. During the summer of 2018, a short video is being developed, through the auspices of the Trash Free Waters program, to highlight the effectiveness of Litter Gitters in reducing the amount of trash floating downstream after a rain event or in instances of high flow.

Plans for the coming year:







The Create a Clean Water Future web site is actively maintained and updated to provide information about pollutants and resources to avoid or mitigate them, along with tips for children, teens, adults, retail businesses, restaurants, and schools to ensure healthy waters for generations to come. Phase I of the CCWF campaign, falling under EPI strategies, involves raising awareness. Phase II of the CCWF campaign involves building capacity to make appropriate decisions that result in cleaner, less-impaired coastal Alabama waters.

Objectives for 2018-2019 year:

1. MBNEP will create service opportunities to engage business “teams” in participating in restoration of cleanup work.

2. Education non-environmental organizations and the public on community stewardship programs and educational opportunities through social media.
3. Incorporate a calendar of stewardship events on the Create a Clean Water Future website (www.CreateACleanWaterFuture.com).

EPI: PUBLIC OUTREACH: SOCIAL MEDIA, WEBSITE, VIDEO

Project Number	EPI
Title	Public Outreach: Social Media, Website, Video
Values Supported	     
Purpose	To educate the public about the things that are valued most about living in coastal Alabama
Outputs/Deliverables	
Outcomes	Increase public awareness of environmental issues; Increased knowledge of environmental issues and stressors
Clean Water Act Relevance	
Year 1 (2018-2019)	\$30,000
External Funding	
Total	\$30,000
Past Year Funding	
Lead/Partner	Community groups, Management Conference members

Progress to date:

MBNEP will continue to reach out to stakeholders through available social media fora (Facebook, Instagram, Twitter, etc.). With social media occupying increasingly significant presence in people's lives, an active, thoughtful, and strategic social media presence will facilitate access to an audience unavailable through more traditional means.







Plans for the coming year:

MBNEP will also continue to create videos to document local heritage and culture for using in educating communities and the general public about how best to protect what is valued most.

Objectives for 2018-2019 year:

1. Strategically follow a regular schedule of posts on available social media fora to build citizen stewardship and educate stakeholders about issues and human impacts threatening the water quality, living resources, habitats.
2. Compile the Heritage and Culture sections of watershed plans to identify video story lines, produce video content, and evaluate reach and knowledge gained through surveys.

EPI: SPECIAL EVENTS

Project Number	EPI1405
Title	Special Events
Values Supported	     
Purpose	To educate the public about the things that are valued most about living in coastal Alabama
Outputs/Deliverables	Sponsorship- Outreach materials for at least 5 community events
Outcomes	Increase public awareness of environmental issues; Increased knowledge of environmental issues and stressors
Clean Water Act Relevance	
Year 1 (2018-2019)	\$7,500
Other Funding	
Total	\$7,500
Lead/Partner	Community groups, Management Conference members







Progress to date:

Special events like the Dauphin Island Sea Lab's Discovery Day, the Alabama Coastal Birdfest, (Three Mile) Creek Fest, and Earth Day provide positive and engaging opportunities to educate the public about protecting the things most valued about living in Coastal Alabama. MBNEP will continue to provide a presence and a credible source of information at local environmental events in the two coastal counties.

Plans for the coming year:

1. Maintain an annual calendar of festivals to coordinate support and participation.
2. Incorporate environmental themes into Bayou La Batre's Blessing of the Fleet.

EPI: COMMUNITY OUTREACH PROMOTIONAL MATERIALS







Project Number	EPI1406
Title	Community Outreach Promotional Materials
Values Supported	     
Purpose	To promote messages related to protecting the Mobile Bay estuary
Outputs/Deliverables	Assorted items (SWAG) with estuary messages
Outcomes	Increase public awareness of environmental issues; Increased knowledge of environmental issues and stressors
Clean Water Act Relevance	
Year 1 (2018-2019)	\$ 5,000
Other Funding	
Total	\$ 5,000
Lead/Partner	MBNEP

MBNEP's purpose is to provide tools and support community-based efforts to promote wise stewardship of the water quality and living resource base of Mobile Bay, its tributaries, and the Mobile-Tensaw Delta. Public education is essential to raising environmental awareness and promoting behaviors that will lead to sustainability of the resources that draw people to the coast. In the next fiscal year, MBNEP will continue development of materials for use in a multi-pronged community outreach program that includes an updated communication plan establishing goals, identifying target audiences, determining what information should be disseminated and how, implementing actions, and evaluating results.

Plans for the coming year:

1. Purchase of promotional items to support outreach at local events

EPI: COMMUNITY OUTREACH PROMOTIONAL MATERIALS

Project Number	EPI1406
Title	Community Outreach Promotional Materials
Values Supported	     
Purpose	To promote messages related to protecting the Mobile Bay estuary
Outputs/Deliverables	Assorted items (SWAG) with estuary messages
Outcomes	Increase public awareness of environmental issues; Increased knowledge of environmental issues and stressors
Clean Water Act Relevance	
Year 1 (2018-2019)	\$ 5,000
Other Funding	
Total	\$ 5,000
Lead/Partner	MBNEP

MBNEP's purpose is to provide tools and support community-based efforts to promote wise stewardship of the water quality and living resource base of Mobile Bay, its tributaries, and the Mobile-Tensaw Delta. Public education is essential to raising environmental awareness and promoting behaviors that will lead to sustainability of the resources that draw people to the coast. Over the past several years, MBNEP has worked with the Gulf of Mexico Program, the Alabama Clean Water Partnership, and other partners to develop outreach material for use in raising awareness about the environmental issues. In the next fiscal year, MBNEP will continue development of materials for use in a multi-pronged community outreach program that includes an updated communication plan establishing goals, identifying target audiences, determining what information should be disseminated and how, implementing actions, and evaluating results.

Plans for the coming year:

1. Purchase of promotional items to support outreach at local events

MPA: PROGRAM IMPLEMENTATION

Activity	Year U1: 2018-2019	Past Year EPA Funding Available	External Funding Available	Total
Management and Program Administration	832,047	-	-	832,047
Program Delivery/Operation	707,601			707,601
Indirect Charges	124,446			124,446

The MBNEP Program Office works closely with all of the MBNEP Management Conference members on initiatives related to the CCMP. The Management Planning and Administration (MPA) budget provides resources for the Program Office to continue program planning, development, implementation, evaluation, and reporting. The staff provides organizational and logistical support for all of the Management Conference committee meetings and coordinates/communicates as necessary with appropriate groups, including user groups, State, local, and Federal agencies, and professional groups relevant to CCMP development and implementation. Staff will provide overall coordination for implementation of the CCMP; prepare EPA-required documents; develop and administer grants/contracts; monitor projects including coordination of work plans, progress reports, and draft/final reports with project leads; coordinate project work plans and activities with other local, State and Federal agencies; and provide for overall program coordination. This amount includes all the necessary items for program administration including salaries, benefits, supplies, equipment, etc.

The Dauphin Island Sea Lab is the administrative sponsor of the MBNEP and has a federally approved indirect rate of 43.2%. The cost of DISL administrative support is discounted for the MBNEP to 15% of all expenditures related to the US EPA grant and any other small external grants awarded to the MBNEP. Based on a 15% indirect charge, the MBNEP is able to capture the 28.2 % unrecovered costs as additional match for the program. For all large external grants, the DISL follows federal regulations of charging 43.2% indirect costs to all direct activities and to the first \$25,000 of each contract executed as part of each external grant.

A hallmark of the National Estuary Program is the convening of a “Management Conference” to guide the **assessment of trends** in water quality, natural resources, and uses of estuary; **identification of causes** of environmental problems; **development of relationships** between pollutant loadings to the estuary and potential uses and quality of the estuary; **development of the CCMP** and other action plans for restoring and maintaining the chemical, physical, and biological integrity of the estuary; and **coordination of the collective implementation** of the CCMP. At its annual retreats, MBNEP’s Executive Committee (EC) evaluates the functioning of the current Management Conference structure and assesses progress on implementation of the CCMP.

Vision: Alabama’s estuaries, where the rivers meet the sea, are healthy and support ecological function and human uses.

Purpose: The MBNEP brings together an engaged and diverse community committed to integrating environmental health with community and economy to develop consensus on what our ecosystem priorities are, how to achieve them, and how to facilitate/promote their implementation.

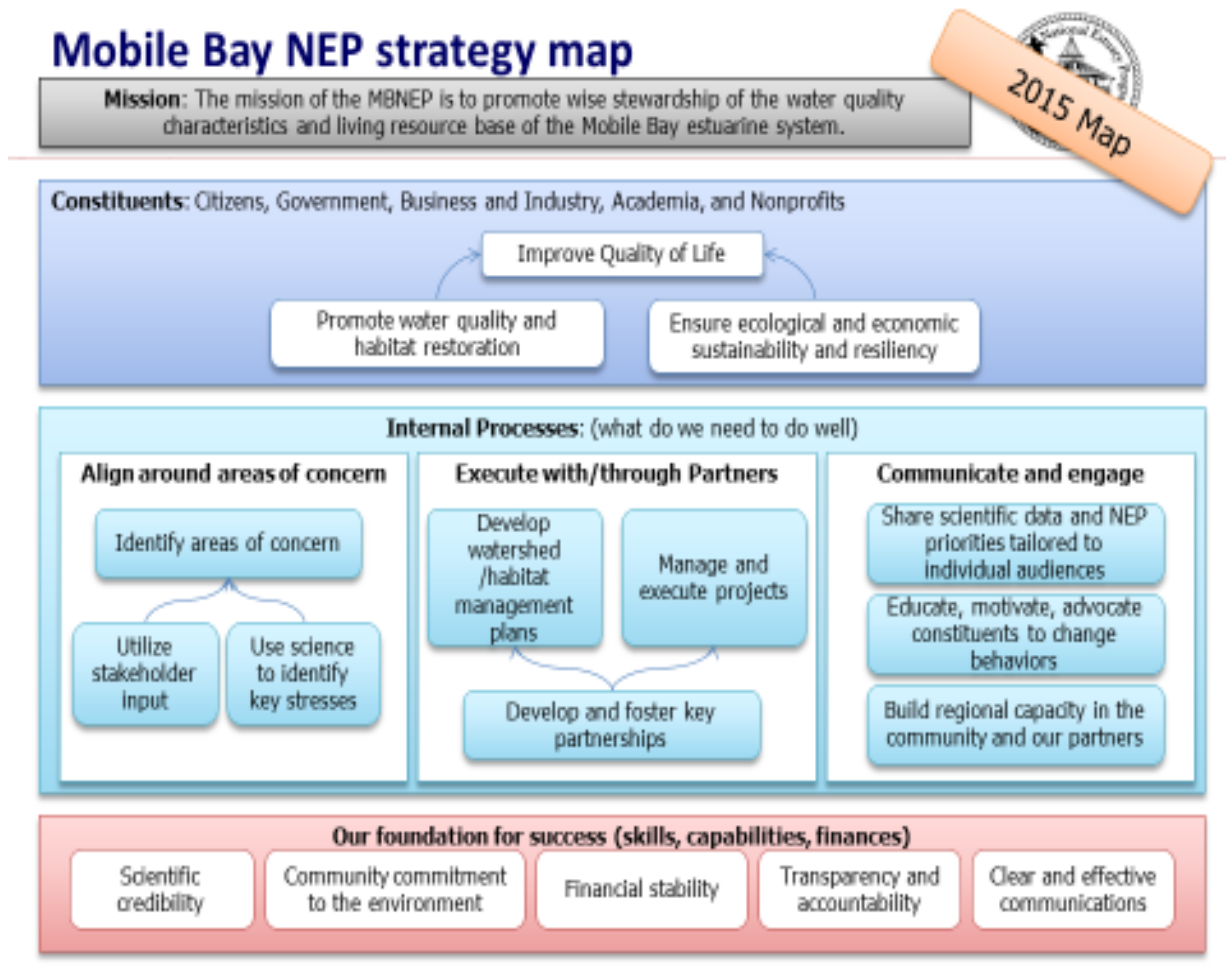
Mission: To provide necessary tools and to support community-based efforts to promote the wise stewardship of the water quality and living resources of the Mobile Bay estuary and the Mobile-Tensaw Delta

Goals:

- Water that is fishable, swimmable, and drinkable (“meeting or exceeding State’s designated uses)
- Conservation, restoration, and protection of critical habitats
- Community who understands and supports the value of our coastal resources

- Integration of environmental health with a balanced economy

During the 2012 Executive Committee Retreat, the purpose, goals and objectives were refined into a Balanced Scorecard, a [strategic planning and management system](#) that is used extensively in business and industry, government, and nonprofit organizations worldwide to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organization performance against strategic goals.



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During the next fiscal year, MBNEP will continue to promote greater coordination and participation of Management Conference members in implementing the Updated CCMP 2018-2023 through improving program transparency, communications, and community awareness. This will be done by development of a communications plan for promoting the updated CCMP, coordination of special events to expand MBNEP partnerships, and continuously improving and expanding our website to provide more interactivity and highlight management conference efforts.

Expected outcomes related to these activities include an increased understanding of activities undertaken by MBNEP and its partners to protect and conserve the water quality, living resources, habitats and human uses of the Mobile Bay estuary, increased recognition of the activities of the MBNEP, increased knowledge about the issues impacting the health of the Mobile Bay estuary, and improved financial planning and tracking.

STAFFING PLAN

Position	Employee	Responsibilities
Director	Roberta Arena Swann	Generates financial and political support for program; participates in regional and national initiatives associated with program; engages in project identification and design; builds collaborative teams for accomplishing objectives; liaison between program and local governments and other public agency leaders; spokesperson for estuary related activities and needs; Oversees program activities.
Restoration Program Manager	Paul Lammers	Oversight of all restoration-related projects including project design, implementation, coordination and monitoring; develop, initiate and coordinate baseline data collection;
Watershed Protection Coordinator	Tom Herder	Conducts technical writing, preparation of grant applications; development of watershed implementation program projects; leads Conservation Corps program; conducts educational program in schools and to community groups; facilitate the transfer of technical information; other
Grants and Business Manager	Tiffany England	Maintains budget, project files, financial record keeping, grant reporting; coordinates logistics and promotional materials for educational outreach and special events
Science & Monitoring Coordinator	Jason Kudulis	Coordinates activities of Science Advisory Committee in their development of a watershed monitoring framework to measure ecosystem health and the citizen science program.
Community Outreach Coordinator	Kelley Barfoot	Manages distribution of public information including press, website, social media, outreach materials; prepares program activity reports for grantors/public; other
Media Specialist	Ben Brenner	Produces video content; creates website presence and other marketing activities for the program.
Community Relations Manager	Rick Frederick	Cultivates relationships with a focus on the business community; builds and supports the Business Resources Committee through recruitment of key individuals; enlists local business community participation in watershed management planning and implementation; communicates the value of MBNEP through special events and media.
Watershed Management Coordinator	Christian Miller	Works with communities to develop watershed management plans and implement initiatives of the Alabama Clean Marina Program and the Alabama Clean Water Partnership
Program Administrator	Bethany Dickey	Provides services associated with office manager as well as technical editing, social media strategies
Communications Intern	Jackie Wilson	Manages social media pages; assists with special events; provides research support for special projects.

TRAVEL

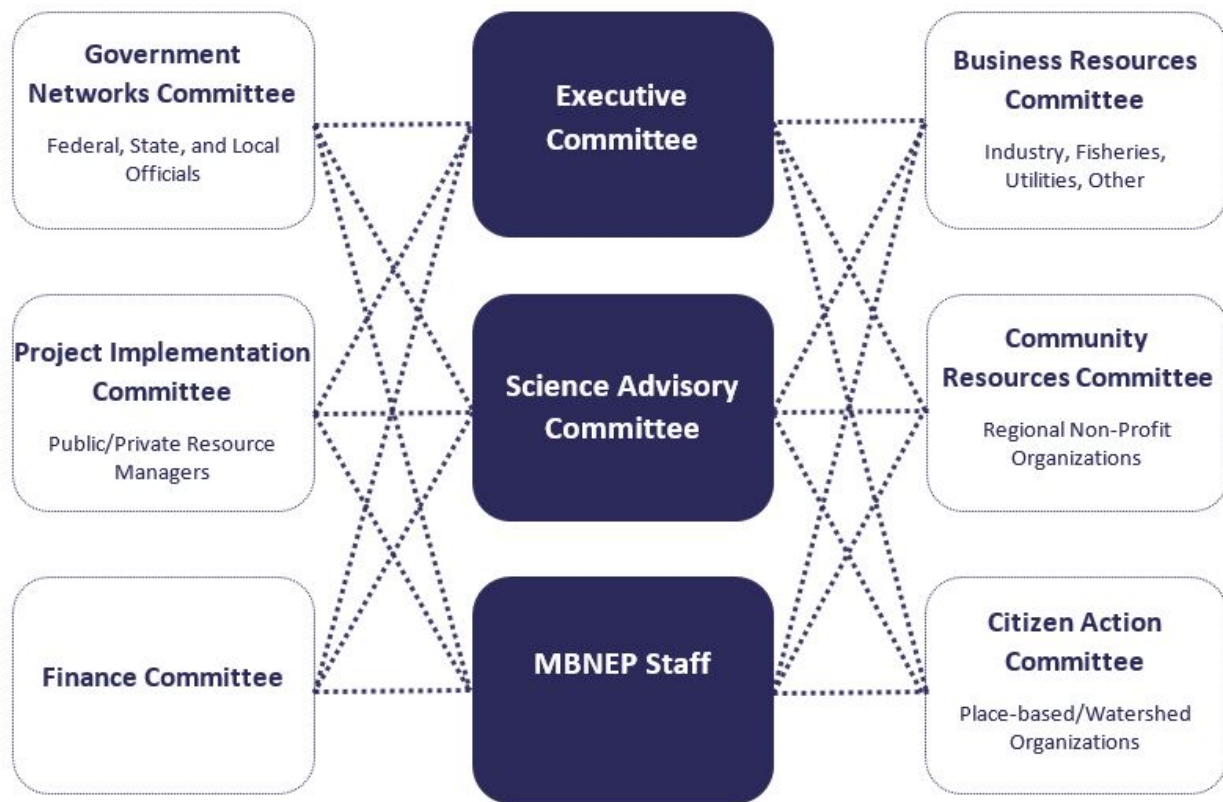
The administration amount includes \$15,000 for travel related to outreach and technology and information transfer. Program staff will participate in regional, state, and national conferences and meetings relevant to estuarine management. Attendance at Association of National Estuary Programs workshops and EPA workshops / meetings will be stressed.

Indirect Costs are charged at a rate of 15% on all cash expenditures (grant and matching funds) of the MBNEP by Dauphin Island Sea Lab. DISL allowable Indirect Cost negotiated rate with Federal Government is 43.2%. The un-recovered indirect of 28.2% is provided to the MBNEP by DISL/MESC as an in-kind matching contribution. Additional in-kind and support services not covered by indirect costs are also provided to the MBNEP by DISL on a case by case basis.

PARTNERS

THE MANAGEMENT CONFERENCE

MBNEP initiated a reorganization of the Management Conference in 2006. The structure was revised to better provide a mix of Policy Makers (both public and private), Implementers (both public and private), and Grassroots (community groups and citizens) to ensure expanding support for CCMP implementation and identification and engagement of emerging issues related to CCMP objectives. The ultimate goal is an increased ability to function as a community capacity builder and provide improved public services in the environmental area to our coastal communities. The Mobile Bay NEP Management Conference now consists of six main committees: Community Action, Community Resources, Government Networks, Science Advisory, Business Resources and Project Implementation Committees.



- **The Community Action Committee** is composed of representatives of environmental grassroots organizations who work together to network, share information, develop issues, and provides cooperative training.
- **The Business Resources Committee** brings together a balance of interested community leaders from industry, business, environmental services, fishing, tourism and other professional fields to identify commonalities among sectors to resolve coastal issues that impact their interests and develop resources and funding.
- **The Government Networks Committee** is made up of State agency heads, regional government administrators, and local officials of southern Alabama area. The goal of this committee is to educate local officials about State priorities and programs and provide a venue for local officials to more effectively communicate local needs.
- **The Project Implementation Committee** includes representatives of resource management agencies and organizations that undertake projects related to CCMP objectives and goals.

- **The Science Advisory Committee** includes experts from the various scientific disciplines who provide insights, research and a sound basis to be used by the other committees in their decision-making processes.
- **Community Resources Committee** is made up of regional and local non-profit organizations who are able to provide training, advocacy and educational opportunities to community members and grassroots groups.
- **The Finance Committee** includes community leaders that are committed to assisting in the development of non-Federal matching dollars to implement activities of the CCMP.
- **The Executive Committee** is made up of representatives from each of the four main committees, EPA, the Science Advisory Committee, the Finance Committee and three at-large members – develops policies on issues and funding, reviews/approves work plans and budgets, evaluates the performance of the Director, and sets financial goals.

A key principle of the Management Conference is to coordinate and cooperate with other ongoing resource management activities to avoid unnecessary duplication. In this regard, the program office plays a major role in coordinating estuary projects and outreach activities, thus providing a more far-reaching benefit than that of simply CCMP project management. During the next program year, MBNEP will continue to promote this management structure as a mechanism for garnering stakeholder ownership in implementing the CCMP.

FEDERAL PARTNERS

EPA ALLOCATION AND NON-FEDERAL MATCHING SHARE



Each year the MBNEP receives an allocation from EPA to support activities geared toward achieving the objectives of the CCMP. These funds require a one to one match. Our current program is being supported by 2.9 million in federal dollars with more than 16 million dollars in match.

GULF OF MEXICO PROGRAM (GOMP)



The Gulf of Mexico Program facilitates collaborative actions to protect, maintain, and restore the health and productivity of the Gulf of Mexico in ways consistent with the economic well-being of the Region. At present, MBNEP is the recipient of a \$488,711 grant to implement a comprehensive trash abatement program in the Three Mile Creek Watershed.

MISSISSIPPI ALABAMA SEA GRANT CONSORTIUM (MASGC)



The Mississippi Alabama Sea Grant Consortium is dedicated to activities that foster the conservation and sustainable development of coastal and marine resources in Mississippi and Alabama. Sea Grant is NOAA's primary university-based program in support of coastal resource use and conservation. The MASGC is an important partner to MBNEP in implementing many CCMP actions. MASGC provides technical expertise, program development assistance, and valuable research and is a leader of many initiatives related to CCMP objectives. At present, MBNEP is a member of the MASGC Advisory Council and the Director sits on the MBNEP Executive Committee.

U. S. ARMY CORPS OF ENGINEERS PARTICIPATION (USACE)



The US Army Corps of Engineers (USACE) actively participates in the implementation of many of the actions of the CCMP. At present, the Corps is a member of the City of Mobile Mayor's Task Force to coordinate implementation of the Three Mile Creek Watershed Plan. In addition, MBNEP works closely with the corps to coordinate permitting and environmental project planning.

STATE RESOURCES

AL DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES STATE LANDS (ADCNR)



Because ADCNR has a long term interest in Alabama's Coastal Resources and the statutory responsibility for the conservation, management, and protection of these resources through its State Lands Division, Marine Resources Division, Wildlife and Fresh Water Fisheries Division, State Parks Division and particularly through the Alabama Coastal Area Management Program, it has entered into a memorandum of agreement to provide annual funding to MBNEP as part of its non-Federal match requirement, as an investment toward implementation of the CCMP. MBNEP has received over \$750,000 over the past nine per year and additional NOAA related grants, which are used to produce *Alabama Current Connection*. *Alabama Current Connection* is a joint newsletter published by the ADCNR State Lands Division Coastal Section and the MBNEP to highlight current projects, management conference activities, and other issues of interest to coastal residents.

STATE OF ALABAMA



MBNEP met with the head of ADECA on March 17, 2006 to request additional State funding support for the program. After much discussion and initial support by ADECA, MBNEP decided on pursuing other opportunities within State government for ongoing support. In 2007, MBNEP was added as a line item in the State budget through the auspices of the Dauphin Island Sea Lab for a designated amount of \$250,000 in 2007. This funding has been reduced each year as follows:

Funding Year	State Amount	ADCNR Amount
2013-2014	\$76,088	\$88,000
2014-2015	\$76,088	\$88,000
2015-2016	\$76,088	\$98,000
2016-2017	\$76,088	\$98,000
2017-2018	\$76,088	\$98,000
2018-2019	\$76,888	\$98,000
Total State Funding	\$381,240	\$470,000

LOCAL RESOURCES

The following local governmental entities provide continuing financial assistance to the MBNEP on an annual basis to support the implementation of the CCMP. Although these communities only allocate funding annually, MBNEP anticipates expanded support from these and other coastal communities in the future. MBNEP will reach out to Satsuma, Chickasaw, Bayou La Batre, Spanish Fort, Dauphin Island, Gulf Shores and Foley for additional investment. Past annual investment from municipalities includes:

Revenues	Year One-2019-2020
EPA	600,000.00
State Appropriation	76,088.00
ADCNR	98,000.00
Baldwin County	50,000.00
Mobile County	25,000.00
City of Mobile	20,000.00
City of Daphne	50,000.00
City of Spanish Fort	5,000.00
City of Fairhope	5,000.00
City of Foley	10,000.00
City of Gulf Shores	5,000.00
Other Small Cities	10,000.00
Total Revenues	954,088.00
Total Match	354,088.00

IN-KIND CONTRIBUTIONS

MBNEP depends on volunteer support and local contributions of other in-kind services to achieve program success. On a yearly basis, in-kind environmental contributions account for over half of the non-Federal share of match that MBNEP is required to raise as investment in implementing the CCMP. This in-kind support is generated from volunteer labor hours related to activities including but not limited to oyster gardening, crab monitoring, trap removals, and participation in area events. Other in-kind services include use of city owned machinery, the value of land donated for conservation purposes, and private donations to cover expenses incurred for events and activities carried out by local grassroots organizations and sponsored by MBNEP.

PART TWO: PAST YEAR ACCOMPLISHMENTS

Mobile Bay National Estuary Program Annual Report 2016-2017

The mission of the Mobile Bay National Estuary Program (MBNEP) is to promote wise stewardship of the water quality and living resources of Alabama's estuarine systems. Funding in part by the US EPA and administratively sponsored by the DISL, MBNEP is a non-regulatory program, bringing together citizens; local, state, and federal government agencies; businesses and industries; conservation and environmental organizations; and academic institutions to meet the environmental challenges that face the unique and imperiled resources that characterize our coastal estuaries. The MBNEP is part of the Sea Lab's Coastal Policy Program.

THE CCMP

In its fifth year, MBNEP continued implementation of a ***Comprehensive Conservation and Management Plan for Protecting Alabama's estuaries and Coast 2013-2018*** (CCMP). This road map to protection of Alabama's coastal resources was produced to support what people along the coast value most: Access to the water and open spaces (for recreation and vistas); Beaches and Shorelines (Protection, economy, beauty); Fish (Fish and wildlife habitats, abundance, livelihood); Heritage and Culture (Protecting the legacy); Environmental Health/Resiliency (Protecting); Water quality (drinking water quality and quantity, rivers, creeks, and bay- fishable, swimmable, drinkable). The CCMP is organized by five sections: Status and trends; Ecosystem restoration; Technical assistance and capacity building; community stewardship; and program implementation. What follows is an overview of accomplishments achieved by over 100 community leaders, academics, businesses, government entities, and grassroots and environmental groups in their efforts to implement the strategies of the CCMP:

<i>Project/Activities</i>	<i>Funding</i>	<i>Progress through 3-31-2018</i>
Estuary Status and Trends		
<i>Coastal Monitoring</i>		
SAC Technical Assistance	EPA	MBNEP, through SAC partners, is attempting to develop a watershed condition gradient, to measure increased habitat health and provision of ecosystem services resulting from restoration efforts.
SAC Coordination	EPA	
Real Time Monitoring	EPA	This program, initially funded by the MBNEP through a Gulf of Mexico Program grant, continues to monitor local environmental conditions in real time from sites across the MBNEP study area available at www.mymobilebay.com
D'Olive Monitoring	NFWF	In partnership with the City of Daphne, water quality monitoring continues. UWF sediment and riparian assessment thesis was completed in 2017. Anticipated end of contract: September 30, 2018. Gena Todia's wetlands WRAP contract completed December, 2017.
Fowl River LT Monitoring 2.2	NFWF	MBNEP continues to monitor density of native marsh plants at the restored and stabilized northern tip of Mon Louis Island and benthic profiles in proximity to the project area.
<i>Sediment Studies/Data Development</i>		As a protocol to inform watershed planning efforts, MBNEP undertakes analyses to determine sediment loads, including suspended and bedload sediments delivered to receiving waters.
Fowl River	EPA	Complete and published in 2015
Fowl River Sediment Study 2.1	NFWF	
Bayou La Batre	NFWF	Complete and published in August 2016
West Fowl	NFWF	Complete and published in April 2017
Tensaw	NFWF	In development with data collection is currently underway.
Fish River	NFWF	Complete and published in December 2016
Wolf Bay	NFWF	Complete and published in September 2017
<i>Data Development</i>		
EPA Data	EPA	Economic Impact Analysis of D'Olive Watershed- contract executed- currently in progress
Mobile County Soil Survey	MC	With the mapping operation complete, contractors are currently completing digital maps along with metadata for the project area.
HM-Soil Survey 1.1	NFWF	
Habitat Mapping 1.1	NFWF	Project has been completed.
SAV Mapping	NFWF	2015 SAV mapping was completed and published July 2016.
SAV Mapping (NFWF Task 1.2)	ADCNR	
Hydrologic Modeling	NFWF	Contract out for execution; Hydrologic modeling will be undertaken for watersheds with NFWF-GEBCO-funded watershed management plans.
Cultural Resource Assessment	NFWF	Cultural resources in riparian zones (within 1,800 feet of shore) are being inventoried for Mobile and Baldwin county shorelines south of Interstate 10. Completion expected August 2018.

Project/Activities	Funding	Progress through 3-31-2018
Ecosystem Restoration and Protection		
Habitat Restoration Plan/Tool Task3	NFWF	Technical Committee established; Plan is in development by TNC.
Watershed Restoration		
Watershed Plan Ex. Project Delivery	NFWF	in progress
Watershed Planning (Funds Available)	NFWF	in progress
Watershed Restoration	EPA	in progress
<i>D'Olive, Tiawasee, Joes Branch, Perdido</i>		
D'Olive Watershed	EPA	in progress
		With four of five restorations substantially completed and in warantee and maintenance phases, a fifth project has been postponed until fall 2018 dur to concerns over weather.
D'Olive Creek Restoration	NFWF	
D'Olive Creek DAE Project	ALDOT	Project DAE, with 420 linear feet of stream and four acres of flood plain, was substantially completed June 2017; currently in warantee and
D'Olive Creek DAE Project	ADEM	The DAF-1a/Melanie Loop tributary restoration, with 490 linear feet of stream and two acres of flood plain, was substantially completed in May 2018. With design completed and a contractor selected, DAF-1/Golf Course tributary restoration, with 200 linear feet of stream and a single acre of floodplain, has been postponed untill fall 2018 due to concerns over weather.
D'Olive Creek/Golf Course Melanie Loop	ADEM	
Joes Branch Restoration Phase 2	NFWF	Restoration of tributary JB II, with 1,600 linear feet of stream and four acres of flood plain, was substantially completed in August 2015.
		The initial implementation measure recommended in the D'Olive Creek WMP, a regenerative step pool stormwater conveyance at tributary JB, with 1000 linear feet of stream and X acres of flood plain, was substantially completed in February 2013. Adaptive management of the transition between JB and JB II was completed in September 2017.
Joes branch Step Pool Conveyance	ADEM	
		Restoration of tributaries TC1 and TC2, with combined 1,150 linear feet of stream and four acres of flood plain, was substantially completed in April 2016. A tributary to TC2 was restored, with 570 feet of stream and one acre of flood plain, and substantially completed in September 2017.
Tiawasee Creek Restoration	NFWF	
<i>Fowl River</i>		
Fowl River Watershed Plan 3.1	NFWF	WMP was completed and published in February 2016.
		Project was completed in October 2016, with installation of 1,400 foot riprap revetment, creation of approximatelyfour acres of marsh using material borrowed from Fowl River Disposal Site, and borrowed material was replaced with material secured during maintenance dredging of the FR Navigation Channel. Native vegetation was planted in spring 2017.
MLI Tip Restoration 1.1-1.7	NFWF	
MLI Tip Restoration Contingency	NFWF	
MLI Tip Permitting 1.8	NFWF	Completed with receipt of Individual Permit on March 9,2016.
		Funds were used to perform maintenance dredging of the shallow and neglected Fowl River Navigation Channel with material beneficially used to replace material borrowed for marsh creation from disposal site to avoid negative water quality impacts.
MLI Tip Restoration	AEMA	
Fowl River Spits-Engineering and Design	NFWF	Delayed pending results of Marsh Study currently in progress
Fowl River Spits-Hydrologic Study	NFWF	Fowl River Hydrologic Studay report is being finaliawed and will be delivered to MBNEP in May/June 2018.
Fowl River Spits-Marsh Study	NFWF	Contract with USA executed 3/6/18 . Perpendicular transects have been established for sampling; with sampling currently in progress.

<i>Project/Activities</i>	<i>Funding</i>	<i>Progress through 3-31-2018</i>
Ecosystem Restoration and Protection		
<i>Bayou La Batre, West Fowl, DI</i>		
Bayou La Batre Watershed Plan	NFWF	Draft was completed, under internal revision, before release for comments.
West Fowl River Watershed Plan	NFWF	In development, along with pathogen loading and source investigation.
West Fowl River Watershed Plan	ADCNR	
<i>Bon Secour Complex</i>		
Bon Secour, Skunk, Oyster Bay Watershed Plan	NFWF	Complete with publication January 2017.
City Of Foley Litter Getter	EPA	Project initiated with deployment and maintenance of Foley Litter Gitter.
<i>Weeks Bay (Fish, Magnolia)</i>		
Weeks Bay (Fish, Magnolia Rivers)	NFWF	Completed and published November, 2017
<i>Dog River, Garrows Bend</i>		
Dog River Complex Watershed Plan	NFWF	Completed and published January 2018
<i>Wolf Bay</i>		
Wolf Bay Watershed Plan	NFWF	Contract awarded, and plan development in progress.
<i>Tensaw Apalachee</i>		
Tensaw Apalachee Watershed Plan	NFWF	Project scope has been completed by Moffat Nicholl. Advertisement for WMP development not yet released.
<i>Three Mile Creek</i>		
Three Mile Creek	EPA	Completed and published September 5, 2014
Three Mile Creek Coordination/12 Mile Creek	WKA	in progress
Three Mile Creek Invasive Species MP	EPA Res	Contract awarded to EnviroScience Team. Plan development in progress.
Three Mile Creek Litter Gitters	GOMP	Permits have been secured. Four Litter Gitters were deployed in April 2018.
12 Mile Creek Survey & Monitoring, Phase 1	EPA	
12 Mile Creek Eng/Design; Construction admin	EPA Res	A contract has been awarded. Pre-planning and design work is ongoing.
Toulmins Spring County Drainage	EPA	Prichard Drainage Study - Toulmins Spring Branch and Gum Tree Branch completed and published May 2016.
Toulmins Spring Model & Drainage	EPA	Flood Control in Toulmins Spring Branch Watershed through LID Practices completed and published by Enis Baltaci of Dr. Latif Kalin's Auburn University Laboratory on June 15, 2016
Comm. Resiliency Academy	EPA	Martin Luther King Jr. Avenue Leadership Academy conducted through calendar year 2015.
Coastal Alabama Conservation & Resiliency Corp (add'l 20K from EPA)	NFWF	Project extended from August 11(with five members active) until December 17, with four Corps members completed the term.
Coastal Alabama Conservation & Resiliency Corp	EPA	
Three Mile Creek Community Resiliency	NYCT	Conducted and completed with Idea Festival/Resilience Workshop in fall 2015.
<i>Eight Mile Creek</i>		
Gum Tree County Drainage	EPA	Prichard Drainage Study - Toulmins Spring Branch and Gum Tree Branch completed and published May 2016.

<i>Project/Activities</i>	<i>Funding</i>	<i>Progress through 3-31-2018</i>
Technical Assistance and Capacity Building		
Coastal Marine Planning (4) Inventory of Resources	ADCNR	For an area that included both coastal counties, HUC 12s included in those counties and crossing MS and FL boundaries fallating at and below the 10foot couthour, and the larger Mobile Bay Watershed, including State water bottoms, a Steering Committee identified all stakeholders and gathered input regarding marine uses and potential conflicts.
Coastal Marine Planning (5) Communication Tools	ADCNR	A Coastal Marine GIS Public Viewer was developed using existing GIS datasets and made available through the ESRI ArcFIS Online web application service.
Volunteer Monitoring	EPA	
Alabama Water Watch	EPA	MBNEP continues to equip and reimburse volunteers with and for AWW reagents and supplies. We continue to attempt to foster coordination between ADEM and AWW.
Grassroots Monitoring Support	EPA	Community Action Committee supports grassroots water quality monitoring by place-based organizations by providing training, technical support, using Alabama Water Watch protocols and equipment. Attempts to engage ADEM in support of citizen-acquired data are ongoing.
K-12 Volunteer Mon. Program/Water Rangers	EPA	in progress
Clean Water Partnership (3 Years)	EPA	The Coastal Basin CWP facilitator continues to engage stakeholders in watershed management planning activities.
Estuary Corps	EPA	complete
Green Ports Support	EPA	
Oyster Gardening/Trail Sponserhip	EPA	MBNEP continues to support its Tip C Turtle oyster shell on the Mobile Oyster Trail.

Project/Activities	Funding	Progress through 3-31-2018
Technical Assistance and Capacity Building		
Education and Public Involvement		
Management Conference	EPA	in progress
Current Connections Newsletter	EPA	MBNEP and the ADCNR-State Lands Division continue to partner in publishing the Alabama Current Connection, a biannual newsletter published in the spring and fall.
Current Connections Newsletter/Bays and Bayous	ADCNR	MBNEP is hosting the 2018 Bays and Bayous Symposium - Navigating Waves of Change November 28 & 29, 2018 at the Outlaw Convention Center.
Interpretive Signage	EPA	in progress
Video Production	EPA	Flight of the Frigate Birds completed and premiered. Other work ongoing.
Special Events	EPA	MBNEP continues to participate in local events to encourage the wise stewardship of the water quality and living resources of Alabama's estuaries.
Promotional Materials	EPA	MBNEP continues to provide promotional materials to engage stakeholders in wise stewardship of Alabama's Estuaries.
Create a Clean Water Future Campaign	EPA	With a website developed and actively maintained, MBNEP continues to encourage businesses, schools, and other stakeholder organizations in managing impacts of stormwater and nonpoint source pollution.
DISL Education Program Support	EPA	MBNEP continues to support Discovery Hall and other DISL education efforts.
Program Planning and Administration		
EPA Program Management and General Expenses	EPA	in progress
D'Olive General Expenses	NFWF	in progress
Fowl River General Expenses-PIR	NFWF	in progress
Fowl River Spits General Exp	NFWF	in progress
Coastal Restoration General Expenses	NFWF	in progress
12 Mile Creek General Expenses	EPA Rest	in progress
DISL Indirect Charge	EPAIDC	in progress
DISL Indirect Charge- External Grants	EXTIDC	in progress