

Mobile Bay National Estuary Program

Management Conference Annual Work Plan

For Implementing the Comprehensive Conservation and Management Plan



Year Four
Fiscal Year 2016-2017
Prepared June, 2016



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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 watershed, developing Comprehensive Conservation and Management Plans (CCMPs) that list and describe actions to address those problems, and identify partners, including lead entities, to implement the actions. Locally, the Mobile Bay National Estuary Program (MBNEP), in existence for 18 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, protect those things that we value most about living in coastal Alabama.

Using the input of over 30 scientists, 1,000 citizens, 100 community leaders, and federal, state and local government agencies, the CCMP represents a strategic plan of action for the next five years (2013-2018). This Work Plan identifies actions that will be initiated in support of the priorities laid out in that document.

INTRODUCTION

MBNEP's mission is to promote the wise stewardship of water quality and living resources within 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: 1) 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 that provides 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.

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PART ONE: 2016-2017 WORKPLAN EXECUTIVE SUMMARY

Major Goals and Focus

In October of 2013, MBNEP began implementation of a Comprehensive Conservation Management Plan for 2013-2018. Over the course of the first year, each of the committees of the Mobile Bay National Estuary Program adopted a five year strategy to protect/improve management of: **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** (protection); **Water quality** (drinking water quality and quantity, rivers, creeks, bay-fishable, swimmable, drinkable). These committees continue their commitment toward the successful implementation of this plan. During the coming year, these committees will focus on the following **goals** and *objectives*:

Ecosystem Status and Trends

Science Advisory Committee

1. **Increase data related to how the estuarine ecosystem responds to anthropogenic stressors**
 - 1.1. *Maintain/improve existing level of coastal monitoring.*
 - 1.1.1. Work with the Dauphin Island Sea Lab to **continue establishment of coastal data repository**
 - 1.1.2. **Conduct 1 Metadata training** in concert with the Sea Lab for MBNEP contractors
 - 1.1.3. **Continue compilation of data** including but not limited to: habitat, soil and SAV mapping data; watershed characterization data; and other data sets to establish a GIS based habitat restoration plan which can be continuously improved through future data entry.
 - 1.1.4. **Initiate development of methodology for acquiring periodic updates to EPA datasets** included in the Watersheds Tool.
2. **Establish process for measuring change in estuarine conditions.**
 - 2.1. *Build a biological Condition Gradient Framework for coastal Alabama.*
 - 2.1.1. **Continue to build draft framework** based on parameters being collected in D'Olive watershed, land development index, and other factors effecting system health.
 - 2.1.2. **Use framework to begin development of a "State of the Bays" Report** to the public.
3. **Improve understanding of relationship between biological condition and provision of ecosystem services resulting from improvements in resources.**
 - 3.1. *Manage system for multiple services*
 - 3.1.1. **Continue to compile available data** to establish a baseline condition for D'Olive watershed.
 - 3.1.2. **Develop monitoring program for Fowl River watershed**

Ecosystem Restoration

Project Implementation Committee

1. **Improve trends in Water Quality in priority watersheds with impairments (either 303(d)-listed or those with approved TMDLs) or other intertidal watersheds that discharge into priority fishery nursery areas by restoring conditions, including hydrology, from headwaters to intertidal zone.**
 - 1.1. *Restore conditions, including hydrology, from headwaters to intertidal zone in at least five watersheds.*
 - 1.1.1. **Complete sediment studies** for Fish River, West Fowl River, and Bayou la Batre; **Initiate sediment studies** for Wolf Bay, Fly Creek, and other
 - 1.1.2. **Initiate watershed plans** in three watersheds/complexes (Tensaw Apalachee, Deer River/Delchamps Bayou, Dauphin Island, Fly Creek, Little Lagoon/Hammock Creek)
 - 1.1.3. **Complete watershed management plans** in four watersheds (Mississippi Sound Complex- Bayou la Batre, West Fowl River, Dauphin Island; Weeks Bay; Dog River Complex- Upper, Lower, Halls Mill, Garrows Bend; Bon Secour Bay Complex- Skunk Bayou, Bon Secour, Oyster Bay)
 - 1.1.4. **Continue/Facilitate implementation** of four watershed plans (D'Olive, Three Mile, Eight Mile, Fowl River)
 - 1.1.5. **Coordinate establishment of a Septic Pump-out/Repair Program** (Eight Mile Creek)
 - 1.1.6. **Support implementation of Drainage Improvement Plan** for Gum Tree Branch/Toulmins Spring Branch
2. **Improve ecosystem function and resilience through protection, restoration and conservation of beaches, bays, backwaters, and rivers.**
 - 2.1. *Install living shorelines along publically owned property.*
 - 2.1.1. Build 5,700 feet of living shoreline on Marsh Island (ADCNR activity)
 - 2.1.2. Build 8,448 feet of living shoreline along Skunk Bayou (NOAA activity)
 - 2.2. *Install living shorelines along privately owned property*
 - 2.2.1. **Complete living shoreline along 1,400 feet of privately owned property** on the northern tip of Mon Louis Island
 - 2.3. *Plant 25 acres of sea oats to stabilize dune system along gulf-fronting beaches*
 - 2.4. *Explore increased hydrological exchange through Hwy 98 causeway*
 - 2.4.1. Include Causeway hydrological exchange in Tensaw Apalachee watershed plan
 - 2.5. *Restore 2500 acres of nearshore and intertidal marshes and flats*
 - 2.5.1. **Create four acres of marsh** on tip of Mon Louis Island
3. **Restore/Expand human connections**
 - 3.1. *Create new 10 new access points*
 - 3.1.1. **Seek funding for the preparation of a comprehensive recreation plan** for coastal Alabama
 - 3.2. *Protect/conserve priority habitats for public benefit*
 - 3.2.1. **Conduct one Conservation Easement workshop**
 - 3.3. *Create driving/walking/biking/paddling trails on historical, ethnic and religious themes*
 - 3.3.1. **Continue to support the design and construction of 700 linear feet of trail** in Three Mile Creek Watershed

Technical Assistance and Capacity Building

Business Resources Committee

1. **Improve Business community understanding of how coastal natural resources and estuaries contribute to economic, cultural, and community wellbeing**
 - 1.1. *Conduct 15 tours highlighting three most stressed habitats*
 - 1.1.1. **Host a minimum of 6 tours** of the estuary focused on educating the private sector about the value of our coastal resources;
 - 1.2. *Deliver a series of presentations to private sector establishments on Create a Clean Water Future campaign and estuary values*
 - 1.2.1. **Conduct 12 presentations** on issues related to the CCMP
 - 1.3. *Develop and implement the Create a Clean Water Future (CCWF) messaging and marketing campaign to be an identifiable brand to foster private sector stewardship*
 - 1.3.1. **Continue implementation of the Clean Water Future Campaign** with focus on business sector
2. **Increase business support for protecting the estuary/coast**
 - 2.1. *Promote business “team” participation in four service opportunities to support the CCWF campaign.*
 - 2.1.1. **Implement strategy for engaging business sector** in watershed planning and implementation
 - 2.2. *Identify and connect business partners to a minimum of three existing opportunities to celebrate cultural heritage of the estuary.*
 - 2.3. *Promote improved stormwater management by the private sector.*
 - 2.3.1. **Produce 5-7 minute video to educate business sector** about new technologies being employed along Alabama coast to better manage stormwater runoff.
3. **Conserve and improve working waterfronts and preserve fishing communities**
 - 3.1. *Create oyster farm enterprise zones to provide alternative livelihood for traditional fishing families*
 - 3.2. *Develop safe harbor in Bayou la Batre and Bon Secour River*
 - 3.3. *Pilot “model working waterfront”*
 - 3.4. *Advocate for the assessment, improvements and designation of estuary ports as green ports*
 - 3.5. *Develop planning tools to balance conservation, restoration and multiple uses of estuary*
 - 3.5.1. **Work with Auburn University and Working Waterfronts Coalition to complete and develop App for an online visualization tool** to assist waterfront community with better coordination of uses.

Government Networks Committee

1. **Establish long-term capability of local governments to manage and maintain coastal environmental resources**
 - 1.1. *Improve elected officials' understanding of issues that impact environmental health and comprehensive land use and water resources management.*
 - 1.1.1. **Develop a strategy for local government participation in watershed planning** using highlights of efforts currently underway
 - 1.2. *Develop platform of necessary regulatory changes needed to manage and maintain coastal environmental resources*

- 1.2.1. **Continue preparation of technical report** of necessary changes needed to strengthen local governance of coastal resources
 - 1.3. *Create and Implement enabling legislation*
2. **Minimize impacts and amount of contaminated stormwater runoff entering coastal waterways**
 - 2.1. *Establish voluntary initiatives to reduce the incidence of non-point source pollution.*
 - 2.1.1. **Engage members in participation in the Create a Clean Water Future Service Day**
 - 2.2. *Educate elected officials about existing ordinances and effectiveness for reducing non-point source pollution.*
 - 2.3. *Establish watershed consortiums across geopolitical boundaries in priority watersheds to better coordinate stormwater management*
 - 2.3.1. **Create watershed consortiums** for Fowl River, Fish River, Bon Secour Complex
3. **Promote the protection and restoration of Gulf-fronting beaches, dunes, and shorelines as a first line of defense**
 - 3.1. *Develop a strategy for restoration and protection of beaches, dunes, and shorelines that is endorsed by elected officials in Mobile and Baldwin Counties*

Education and Public Involvement

Community Action Committee

1. **Increase awareness of coastal resources that support what people value about living in coastal Alabama.**
 - 1.1. *Give 50 presentations to community groups about the CCMP or issues impacting our coastal values*
 - 1.1.1. **Conduct presentations at 5 community groups** on topics of concern/activities of the CCMP
 - 1.2. *Host 15 workshops annually to educate citizens and property owners on how to protect and restore what people value most*
 - 1.3. *Participate in 15 festivals to celebrate cultural/natural connections to the coast.*
 - 1.3.1. **Support local events**, including but not limited to: Birdfest, Blessing of the Fleet, Wolf Bay Water Watch Kids Fishing Tournament, and other festivals celebrating aspects of coastal heritage/culture
 - 1.4. *Create and support programs that expose more people to local waterways*
 - 1.4.1. **Install watershed signage** throughout Mobile and Baldwin County, with a focus on locations in close proximity to waterways
 - 1.4.2. **Support Coastal Clean Up**
 - 1.4.3. **Establish a local conservation corps** in partnership with MLK Avenue Redevelopment
2. **Improve community ability to participate in ecosystem-based management actions**
 - 2.1. *Engage grassroots groups in assisting with development and implementation of watershed management plans*
 - 2.1.1. **Support local watershed groups** including but not limited to: Fowl River Area Community Association, Prichard Environmental Restoration Keepers, Dog River Clearwater Revival, The Peninsula of Mobile, Wolf Bay Watershed Watch, Little Lagoon Preservation Society, Mobile County Wildlife and Conservation Association, Mobile Bay Kayak Fishing Association. Fort

- Morgan Civic Association, and other place-based grassroots organizations in their efforts to engage citizens in / implement watershed plans.
- 2.2. *Engage grassroots groups in collecting data to monitor trends related to implementation of watershed plans*
 - 2.2.1. **Train 20 citizens to undertake volunteer water quality monitoring**/mentor students who are conducting monitoring.
 - 2.2.2. **Support development of “Water Rangers”** online water monitoring data visualization program
 - 2.3. *Educate on programs and volunteer opportunities available*
 - 2.3.1. **Update website calendar** on a periodic basis
- 3. Increase citizen actions to mitigate impacts of humans on the environment**
- 3.1. *Support one social marketing campaign to increase participation in conservation activities*
 - 3.1.1. **Continue implementation of the Create a Clean Water Future Campaign** within grassroots and local NGO community
 - 3.2. *Implement at least three programs to increase community stewardship through place-based grassroots groups*
 - 3.3. *Support programs developed to reduce amount of trash in coastal waterways*
 - 3.3.1. **Support 4 community clean-ups**
- 4. Build capacity of grassroots groups**
- 4.1. *Support/Promote three workshops addressing organizational development*
 - 4.1.1. **Host 3 Organizational Development workshops**
 - 4.2. *Support needed changes to federal, state, and local regulations to improve management of our coastal resources*
 - 4.2.1. **Conduct one letter writing campaign** to encourage locally elected officials to participate in watershed planning and implementation.

Finance Committee

For 2016-2017, the Finance Committee will focus on developing an organizational growth plan for Mobile Bay National Estuary Program, including updates to the finance strategy for engaging member government investment in Mobile Bay National Estuary Program.

BUDGET OVERVIEW: 2015-2016



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 2016-2017 MBNEP EPA Budget below delineates anticipated expenditures for the next year. Note: This budget is based on receipt of **\$700,000 from US EPA** for the 2016-2017 program year and **\$270,588 in State and Local funds**.

**Mobile Bay National Estuary Program
CCMP Work Plan 2015-2016
Budget**

Activity	Year One 2013-2014 (Revised)	Year Two 2014-2015	Year Three 2015-2016	Reprogram Funds	Year Four 2016- 2017	Total EPA Budget All Years
Estuary Status and Trends						
Coastal Monitoring- Coordinator	30,000.00	16,250.00	10,000.00	16,400.00	25,000.00	97,650.00
Watershed Sediment Studies	17,500.00			(16,400.00)		1,100.00
EPA Data Integration/Updates					100,000.00	100,000.00
D'Olive Watershed Implementation	1,544.00					1,544.00
Eight Mile Creek - Gum Tree Branch Drainage		15,000.00		8,848.00		23,848.00
Three Mile Creek- Toulmins Spring Drainage		33,848.00		(8,848.00)		25,000.00
Three Mile Creek- Toulmins Spring Stormwater Study	43,000.00	3,855.00	10,000.00			56,855.00
Three Mile Creek- Community Resiliency		20,000.00			20,000.00	40,000.00
Bon Secour Watershed Plan	21,435.00	18,565.00		(40,000.00)		-
Technical Assistance and Capacity Building						
Alabama Water Watch	5,000.00		10,000.00			15,000.00
Citizen Monitoring				20,000.00		20,000.00
HS Education and Monitoring				20,000.00		20,000.00
Estuary Corps Environmental Experts Video	9,000.00					9,000.00
CWP Facilitator	10,000.00	12,500.00	12,500.00		17,500.00	52,500.00
Education and Public Involvement						
Management Conference Support/Partnerships		3,000.00			2,500.00	5,500.00
Newsletter		8,000.00	8,000.00		8,000.00	24,000.00
Interpretive Signage					5,000.00	5,000.00
Video Production Reserve	14,000.00	5,000.00	20,000.00		5,000.00	44,000.00
Special Events	14,435.00	8,000.00	8,000.00		5,000.00	35,435.00
Promotional SWAG	5,000.00	3,210.00			4,176.00	12,386.00
Public Awareness- Clean Water Future Campaign		40,330.00	29,793.91		10,000.00	80,123.91
Oyster Gardening/ Oyster Trail Sponsorship	1,000.00		2,000.00		1,000.00	4,000.00
DISL Education Salary Support	45,000.00	45,000.00	45,000.00		60,000.00	195,000.00
Management and Program Administration						
Salaries and Operations	479,245.00	470,030.00	570,000.00		602,695.00	2,121,970.00
Total Direct Costs	696,159.00	702,588.00	725,293.91	-	865,871.00	
Indirect Charges	104,423.00	102,388.00	108,794.09		128,305.00	443,910.09
Grand Total EPA Budget	800,582.00	804,976.00	834,088.00	-	994,176.00	3,433,822.00

Detail within each of the expense categories follows.

Project Details: Estuary Status and Trends


Activity	Year One 2013-2014 (Revised)	Year Two 2014-2015	Year Three 2015-2016	Reprogram Funds	Year Four 2016- 2017	Total EPA Budget All Years
Estuary Status and Trends						
Coastal Monitoring- Coordinator	30,000.00	16,250.00	10,000.00	16,400.00	25,000.00	97,650.00
Watershed Sediment Studies	17,500.00			(16,400.00)		1,100.00
EPA Data Integration/Updates					100,000.00	100,000.00

What does biological integrity look like in coastal Alabama? What monitoring and research is needed to track environmental conditions through time? How do we reduce stressors and communicate resultant biological changes? One of the charges of the Science Advisory Committee (SAC) is to integrate science into the development of an environmental monitoring program that informs us about the status of our coastal area's biological condition. It will be imperative that this monitoring program be one coinciding with citizens' value and data is communicated to the public so progress in improving/protecting biological conditions has widespread community support.

As part of building a robust monitoring program, the Science Advisory Committee 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 to access these data sets.

Throughout the implementation of the Comprehensive Conservation and Management Plan for 2013-2018, the Science Advisory Committee will work with state and federal agencies to develop answers to the above questions. The SAC will participate with ADEM to build a Biological Condition Gradient framework for coastal Alabama with assistance from US EPA Headquarters and Gulf Breeze Lab. 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.

EST: COASTAL MONITORING PROGRAM/ REAL-TIME MONITORING

Project Number	EST1401
Title	Coastal Monitoring Program
Values Supported	
Purpose	Using ongoing research, and Healthy Watersheds/Biological Condition Gradient Frameworks- 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; High Resolution Habitat Maps of Mobile and Baldwin Counties, including SAV mapping; A first edition Biological Condition Gradient Framework and implementation plan; 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 (2013-2014)	\$ 30,000
Year 2 (2014-2015)	\$ 32,650 (Revised)
Year 3 (2015-2016)	\$ 10,000
Year 4 (2016-2017)	\$25,000
Other Funding	\$ 0
Total Available	\$ 97,650
Match/Leverage	US EPA, ADEM, Science Advisory Committee
Lead/Partners	ADEM/MBNEP SAC, US EPA

Biological integrity is commonly defined as "the ability to support and maintain a balanced, integrated, and adaptive community of organisms having a species composition, diversity and functional organization comparable to those of natural habitats within a region" (Karr and Dudley, 1981). It is equated with pristine conditions, or those conditions with minimal or no disturbance.

Mobile Bay provides a wealth of ecosystem services that benefit Alabama citizens including water purification, nutrient cycling, carbon storage and recreational opportunities. The provision of these valuable services depends in part on the ecological integrity of our coastal watersheds. The water quality and ecological health of Mobile Bay cannot be adequately protected through efforts focused solely on the edge of the Bay. Improving environmental conditions by managing anthropogenic stressors along the AL coast requires that they be viewed in a broader, systems context. The health of Mobile Bay depends upon the health of the upstream portions of its coastal watersheds.

Utilizing a Biological Condition Gradient (BCG) framework integrates the condition of watersheds that feed into Mobile Bay, capturing the upstream processes that influence the health of the estuary. Developing environmental goals with a BCG framework includes: 1) defining biological condition of a minimally disturbed area or what the natural condition in the area would be, 2) defining biological attributes that change based on the level of stress to that condition, 3) associating those changes with specific human impacts, and 4) identifying management practices for improving conditions and, therefore, biological integrity.

The SAC has made progress with the BCG Framework. The version of the BCG framework the MBNEP will be using is a habitat mosaic; three habitats were identified and prioritized in 2012 by the regional community as critical to the health of Mobile Bay. The SAC came to consensus on how to quantify the condition of the identified habitats. Additionally, a monitoring working group was formed to develop a basic framework for monitoring the condition of watersheds at the HUC12 scale adjacent to Mobile Bay to standardize data collection and management throughout the Bay. This framework allows ready integration of data into a broader, estuary-wide context. This framework is being applied to D'Olive watershed through both tracking of restoration improvements and other biological parameters of the established BCG framework.


Throughout the next several program years monitoring will occur in D'Olive through local, state, and federal partnerships. These observations will improve understanding in the physical and biological processes occurring in the sub-estuaries of Mobile Bay and enhance future restoration efforts. The shifts in the BCG as stressors are reduced will be tracked, and partner academics will analyze the results to assess the usefulness of the habitat mosaic BCG. Furthermore, the data collected on the D'Olive restoration will help pinpoint the most cost effective metrics to measure for shifts in function and services in other watersheds.

The comprehensive, Bay-wide, Real-Time Monitoring Program was begun in the FY 2003 Work Plan and was initially funded by the Coastal Impact Assistance Program and then the Gulf of Mexico Program. Water quality data is collected over the long term in Mobile Bay and along the Alabama coastline including: 1) data from single, multi-sensor probes used to measure standard meteorological measurements plus dissolved oxygen, salinity, water temperature, pH, turbidity, and fluorescence transmitted to an internet web site every 15 minutes; and 2) information management, processing, and delivery via cellular modem which is made available through online real-time communication through www.mymobilebaynep.com. Staff support for this program has been integrated into the SAC Coordinator responsibilities.

Objectives for 2016-2017 year:

1. Continue establishment of coastal data repository at DISL
2. Conduct 1 metadata training with MBNEP contractors and others
3. Continue compilation of data on watersheds
4. Initiate development of methodology for acquiring periodic updates to EPA datasets
5. Continue to build draft Biological Condition framework in D'Olive Watershed
6. Use framework to begin development of a "STATE OF THE BAYS" report

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 (2013-2014)	\$ 1,100
Year 2 (2014-2015)	\$ 0
Year 3 (2015-2016)	\$ 0
Year 4 (2016-2017)	\$ 0
Other Funding	\$ 50,000 NFWF GEBF
Total Available	\$ 51,100
Match/Leverage	\$ 34,500 (GSA)
Lead/Partners	Geological Survey of Alabama/MBNEP

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.


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. With watershed management planning underway

for Fowl River and anticipated for Dog River and Bon Secour River watersheds, sediment analyses for Dog River and Bon Secour River are complete, and analyses for the Fowl River watershed is near complete.

Objectives for 2016-2017 year:

1. Complete sediment studies for fish River, West Fowl River, And Bayou La Batre
2. Initiate Sediment Studies For Wolf Bay, Fly Creek, and other

EST: DATA DEVELOPMENT: HABITAT/SAV MAPPING/SOIL SURVEY

Project Number	EST1402
Title	Comprehensive Habitat and SAV Mapping
Values Supported	
Purpose	Establish quantitative baselines of in coastal watersheds to inform and measure progress in planning.
Outputs/Deliverables	Current habitat maps for both coastal counties; updated soil survey for Mobile County; Current SAV maps for Alabama coast.
Outcomes	Improve understanding of habitat trends along coastal Alabama.
Clean Water Act Relevance	Improve water quality monitoring, support TMDL implementation, improve wetland function.
Year 1 (2013-2014)	\$ 0
Year 2 (2014-2015)	\$ 0
Year 3 (2015-2016)	\$ 0
Year 4 (2016-2017)	
Other Funding	\$ 630,000
Total Available	\$ 630,000
Match/Leverage	NFWF GEBF, ADCNR, MCSCD
Lead/Partners	ADCNR/Mobile County/MBNEP


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.

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. With watershed management planning underway for Fowl River and anticipated for Dog River and Bon Secour River watersheds, sediment analyses for Dog River and Bon Secour River are complete, and analyses for the Fowl River watershed is near complete.

Objectives for 2016-2017 year:

3. Complete sediment studies for fish River, West Fowl River, And Bayou La Batre
4. Initiate Sediment Studies For Wolf Bay, Fly Creek, and other

EST: DATA DEVELOPMENT: EPA DATA INTEGRATION/UPDATES

Project Number	EST1402
Title	Comprehensive Habitat and SAV Mapping
Values Supported	
Purpose	Establish quantitative baselines of in coastal watersheds to inform and measure progress in planning.
Outputs/Deliverables	Current habitat maps for both coastal counties; updated soil survey for Mobile County; Current SAV maps for Alabama coast.
Outcomes	Improve understanding of habitat trends along coastal Alabama.
Clean Water Act Relevance	Improve water quality monitoring, support TMDL implementation, improve wetland function.
Year 1 (2013-2014)	\$ 0
Year 2 (2014-2015)	\$ 0
Year 3 (2015-2016)	\$ 0
Year 4 (2016-2017)	\$ 100,000
Other Funding	
Total Available	\$ 100,000
Match/Leverage	
Lead/Partners	ADCNR/Mobile County/MBNEP

The purpose of bringing EPA datasets into the "TNC" Tool is to provide a platform for serving up-to-date EPA data for use in watershed planning, implementation, measurement of results and public education along coastal Alabama.

The goals are to enhance the TNC freshwater network by linking this tool to EPA datasets including but not limited to (STORET, ATTAINS, NPDES, etc.) and develop a program to refresh EPA data on a regular basis so any watershed comparison would be conducted with most up-to-date information.

Objectives for 2016-2017 year:

1. Define which EPA datasets are most appropriate for use in watershed comparison app (I believe this has already been done in large part through the healthy watersheds initiative- for Watershed Comparison purposes, we would "turn on" the same EPA datasets used in the initiative plus EJ screen data, GRTS geospatial data for starters)
2. Create a program or "macro" to clip the above defined datasets for all HUC 12s within:
 - HUC 8s (east and west of the Mobile bay estuary)
 - Escatawpa 03170008
 - Mississippi Coastal 03170009
 - Perdido 03140106
 - Perdido Bay 03140107
 - HUC 6's (the Mobile Bay watershed)
 - Mobile Bay-Tombigbee 031602
 - Alabama 031502
 - Black Warrior-Tombigbee 031601
 - Coosa-Tallapoosa 031501
 - Middle Tennessee-Hiwassee 060200
3. Create a catalog of all available EPA datasets (all others defaulted to off) for other analysis uses.

PROJECT DETAILS: ECOSYSTEM RESTORATION

Activity	Year One 2013-2014 (Revised)	Year Two 2014-2015	Year Three 2015-2016	Reprogram Funds	Year Four 2016-2017	Total EPA Budget All Years
Ecosystem Restoration and Protection						
D'Olive Watershed Implementation	1,544.00					1,544.00
Eight Mile Creek - Gum Tree Branch Drainage		15,000.00		8,848.00		23,848.00
Three Mile Creek- Toulmins Spring Drainage		33,848.00		(8,848.00)		25,000.00
Three Mile Creek- Toulmins Spring Stormwater Study	43,000.00	3,855.00	10,000.00			56,855.00
Three Mile Creek- Community Resiliency		20,000.00			20,000.00	40,000.00
Bon Secour Watershed Plan	21,435.00	18,565.00		(40,000.00)		-

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 services 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 is the focus of the CCMP for 2013-2018. 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 plans (WMP) at the 12-digit Hydrologic Unit Code scale. All watershed plans will be based on US 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. The MBNEP has recruited assistance from Project Implementation Committee 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 Project Implementation Committee 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. MBNEP supports Federal and State efforts to create living shorelines (Marsh Island, Skunk Bayou) and will promote the development of a comprehensive recreation plan and trail and access improvements for our coastal area.

One aspect of watershed restoration is ensuring community resiliency. MBNEP works with the MLK Avenue Redevelopment Corporation to build community resiliency in the lower reaches of Three Mile Creek through support of MLK's "Community Resiliency Leadership Academy". In its first year, fifteen residents graduated from the first academy with one of its accomplishments being a request to the City of Mobile to adopt and support the Three Mile Creek Watershed Management Plan. In addition to adoption of the plan, this group identified a need for young adults to have job opportunities in close proximity to their surrounding neighborhood, potentially in an environmental sector. MBNEP is now partnering with MLK to establish a Conservation Corps. This group will provide labor support for invasive species management and community education

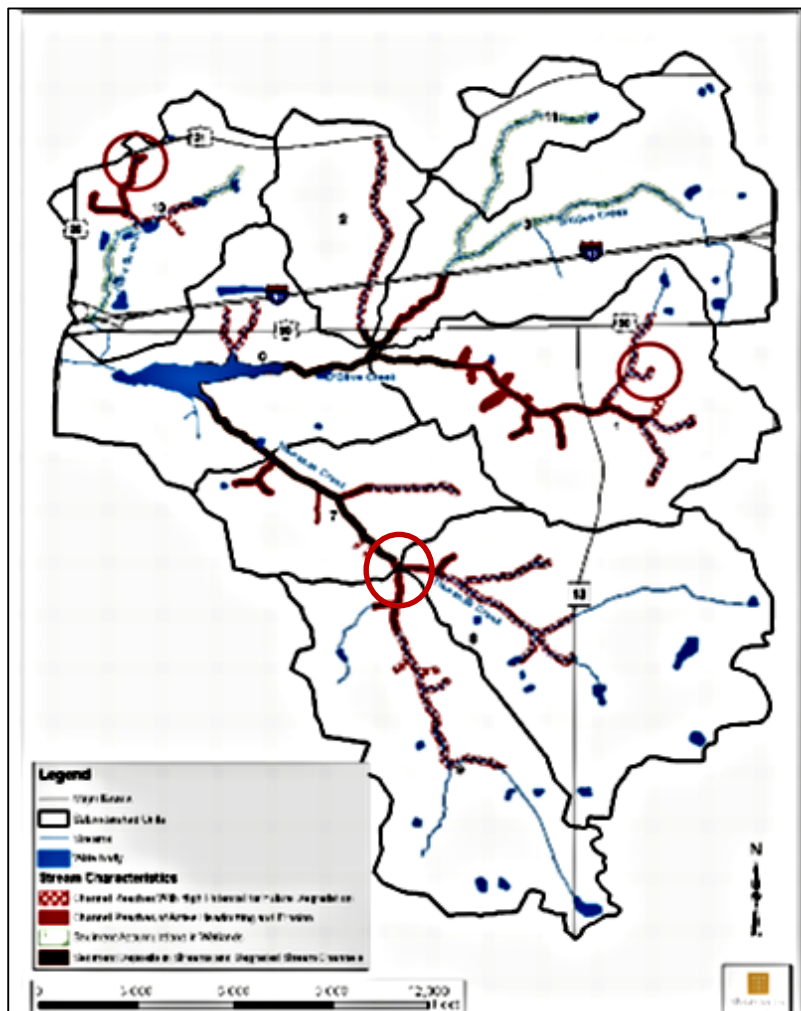
ERP: D'OLIVE WATERSHED: STABILIZATION OF ACTIVELY ERODING AREAS

Project Number	ERP1401
Title	Stabilization of Active Erosion- D'Olive Watershed
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 (2013-2014)	\$ 1,544
Year 2 (2014-2015)	\$ 0
Year 3 (2015-2016)	\$ 0
Year 4 (2016-2017)	\$ 0
Other Funding	\$ 11,388,001 NFWF GEBF
Total	\$ 11,388,001
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

With restoration of the unnamed, head-cut tributary to Joe's Branch and downstream wetlands (funded by a Clean Water Act Section 319 Grant) completed, activities are underway through a National Fish and Wildlife Foundation (NFWF) Gulf Environmental Benefits Fund (GEBF) grant award to "stop the bleeding" within the D'Olive watershed as recommended in the watershed management plan published in 2010. Restoration of severely eroded areas of Joes Branch, D'Olive Creek, and Tiawasee Creek in are in various stages of engineering, design and construction.

With restoration of Joe's Branch Tributary JB complete, construction is underway to address erosion/sedimentation problems along three other stream reaches (JA, J4-1, and J4-2) and to create and restore two stormwater management ponds (one planned and one existing, respectively).

Construction is underway in the severely degraded D'Olive Creek tributary designated D4-D6 between I-10 and U.S. Hwy 90. Plans are being developed for restoration of other identified problem reaches in the D'Olive Creek sub-watershed, including DAE in a residential area south of Hwy 90 and DA3 on the west side of Hwy 13.



The Tiawasee Creek restoration is substantially complete and is performing well in a project managed by the City and funded in part through the GEBF and in part by Coastal Impact Assistance program funds and an ADEM 319 grant secured by the City.


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.

Objectives for 2016-2017 year:

1. Continue restoration of 13 different stream segments and install

stormwater management Best Management Practices; substantially complete restorations of D'Olive Creek Tributary D4-D6.

ERP: EIGHT MILE CREEK WATERSHED: WATER QUALITY RESTORATION

Project Number	ERP1402
Title	Eight Mile Creek Pathogen Reduction Program
Values Supported	
Purpose	Advance the restoration of water quality through pathogen reduction activities based on results of an infrared mapping of the watershed with a goal of removal from State 303(D) list
Outputs/Deliverables	Reduction of pathogens to demonstrate significant improvement in Eight Mile Creek- Removal from 303 (D) list
Outcomes	Improved ecosystem function and protection; Improved community understanding of ecosystem restoration and protection activities.
Clean Water Act Relevance	Improve water quality monitoring, support TMDL implementation
Year 1 (2013-2014)	\$ 0
Year 2 (2014-2015)	\$ 15,000
Year 3 (2015-2016) revised	\$ 8,8480
Year 4 (2016-2017)	\$ 0
Other Funding	\$ 0
Total	\$ 23,848
Match/Leverage	
Lead/Partners	MBNEP/City of Prichard, NRCS

The Eight Mile Creek Watershed is located in Mobile County, with a majority of its 37-square mile watershed located within the cities of Mobile, Prichard, and Chickasaw. The watershed contains five miles of impaired streams comprising components of the semi-braided, perennial Eight Mile Creek and larger Chickasaw Creek tributary system which flow into the Mobile River and eventually into Mobile Bay and the Gulf of Mexico.

In 1998, Eight Mile Creek and Gum Tree Branch were added to the State of Alabama's 303(d) list of impaired waters due to high levels of pathogen pollution (fecal coliform) from urban runoff and/or storm sewers and septic system failure. The Eight Mile Creek Watershed is subject to the impacts generally associated with urbanization: sewage and pathogenic bacteria from aging and overloaded infrastructure, trash and litter carried into the creek by stormwater runoff, and loss of natural shoreline triggered by increases in impervious surface. The Eight-Mile Creek Watershed

has been identified by ADEM as one of the top-five Watersheds for septic systems in Mobile County, with 3,800 systems.



Color infrared photography has proven to be a successful method for identifying failing septic systems. This technique for locating failing septic tanks has been in use for decades and is described in detail by the EPA report “Evaluation of Color Infrared Aerial Surveys of Wastewater Soil Absorption Systems.” Gwinnett County, Georgia, performed such an investigation in 2006 and documented the study in the report titled, “Fecal Coliform TMDL Implementation – Analysis of Color Infrared Aerial Photographs to Detect Failing Septic Systems.” These studies indicate that the CIR process can identify failing septic tank sites with an accuracy of approximately 80%.

Primary project partners include: Mobile Bay National Estuary Program, The Alabama Clean Water Partnership, Mobile County Health Department, Mobile Area Water and Sewer System, Mobile County Soil and Water Conservation District/USDA NRCS, The Alabama Department of Environmental Management/Alabama Coastal Nonpoint

Pollution Coastal Program, and the City of Prichard.







Approximately 40-square miles have been photographed with a CIR camera to identify potential failing septic systems. The images have been ortho-rectified and geo-referenced within a GIS system and a subset of potential failing septic systems has been ground-truthed by local field experts. There is now a comprehensive GIS database of potential failing septic systems within the watershed which will enable community decision makers to better allocate limited resources in an effort to remediate compromised systems.

During 2016, a drainage improvement plan was prepared for Gum Tree Branch in partnership with Mobile County. Recommendations included ditch maintenance improvements and installation of Low Impact Development measures (primarily cisterns and rain barrels).

Objectives for 2016-2017:

1. Coordinate the establishment of a septic pump out/repair program.
2. Partner with Mobile County to implement Drainage Improvement Plan.

ERP: FOWL RIVER WATERSHED: RESTORATION

Project Number	ERP1403
Title	Mon Louis Island Shoreline Habitat Improvements/Watershed Plan
Values Supported	     
Purpose	Stabilize Tip of Mon Louis Island from chronic, routine impacts including but not limited to boat wakes from ship channel and re-establish critical fisheries habitat and storm protection measure for Fowl River; Prepare Watershed Plan
Outputs/Deliverables	Stabilization of 1,400 ft. of shoreline; 1,400 feet of near shore habitat, create 4 acres of salt marsh
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 (2013-2014)	\$ 0
Year 2 (2014-2015)	\$ 0
Year 3 (2015-2016)	\$ 0
Year 4 (2016-2017)	\$ 0
Other Funding	\$ 3,283,100 NFWF & AEMA
Total	\$ 3,283,100
Match/Leverage	\$ 185,828 past EPA grant to support engineering and design
Lead/Partner	MBNEP/Private property owner

With Fowl River Watershed sediment analysis and watershed management plan nearing completion and the Shoreline Stabilization/Habitat Creation Project along the Mon Louis Island properties of six adjacent owners' complete and functioning, focus continues on restoring the erosion-impacted property adjacent to the mouth of East Fowl River on the northern end of the island. The owner of this undeveloped property, which exceeds 1,000 feet in length, was an early proponent of MBNEP

shoreline restoration activities. MBNEP, however, felt that it was important initially to restore a contiguous stretch of private properties and implement at a scale available to property owners. The owner has, through the course of this initial project, expressed a willingness to contribute resources to the stabilization of the shoreline along this parcel, the southern land mass at the mouth of the river.

This parcel is largely covered by tidal wetlands, restored in 2005 by Barry A. Vittor and Associates with funding from the Alabama Coastal Foundation. They excavated a monoculture of invasive *Phragmites australis* to restore hydrology to favor a more diverse assemblage of installed native marsh plants. The Bay-fronting shoreline, which lies between the river mouth and the island's northern-most, developed and armored private parcel, has continued to recede at a rate that far exceeds more southern areas of the island. In fact, with less than 120 feet of low uplands separating Mobile Bay from the relatively-deep water harbor that provides access to Fowl River for commercial and recreational fishing interests, a breach at this site during a tropical weather event would not be unlikely.

An initial engineering plan included a continuous rock breakwater placed at the historical location of the 1996 shoreline and using hydraulically dredged, beneficially-used dredge material to create four additional acres of wetlands. However, with material in the Fowl River navigation channel unsuitable and facing significant permitting obstacles to borrowing suitable nearshore material, transportation/delivery costs of material from Corps beneficial








use disposal sites were cost prohibitive. Facing this constraint, the Corps made an initial determination that material in the nearshore, already-authorized Corps disposal site for material dredged from the Fowl River navigation channel was potentially suitable. With State funding available to dredge the channel, a workable plan was developed. Suitable material for marsh creation could be hydraulically dredged from the disposal area to fill and create the four-acre wetland. With equipment already mobilized, the Fowl River navigation channel could subsequently be dredged with material hydraulically replaced in the approved nearshore borrow site to avoid environmental impacts. Implementation of this plan to stabilize the shoreline could reduce the threat of a breach across Old Shipyard Road during a tropical weather event and protect critical ecosystem services delivered by over twelve acres of productive brackish marsh habitat as well as residential properties to the south.

Objective for 2016-2017 year:

1. Build a living shoreline along 1,400 feet of privately owned property on the northern tip of Mon Louis Island.
2. Create 4 acres of marsh on tip of Mon Louis Island.

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
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 (2013-2014)	\$ 43,000(Revised)
Year 2 (2014-2015)	\$ 3,855
Year 3 (2015-2016)	\$ 10,000
Year 4 (2016-2017)	\$ 20,000
Other Funding	\$ 81,500
Total	\$ 158,355
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

In January, 2014 Dewberry, in partnership with Brown and Caldwell, Aerostar, and Placemaker, completed a watershed management plan for the Three Mile Creek Watershed, which runs over 14 miles from west of the University of South Alabama east to the Mobile River near the State Ports. This Creek and its surrounding watershed present an extraordinary opportunity to the City of Mobile to turn what is now a community

liability into an amenity similar to “river walks” in other cities as well as providing a template for planning in larger urban watersheds in coastal Alabama. This watershed includes the constituencies of several city and county officials and is heavily urbanized; the majority of its 30-square mile area lies within the City of Mobile; and it is home to several Mobile Housing Board housing developments. Over the time period 1974 to 2008, the portion of this watershed classified as “urban” increased from 49.5% to 70.2%, with significant development occurring in a portion of the watershed with an elevation at or near sea level, so potential impacts of climate change and sea level rise are of particular concern.

The 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 cost of this comprehensive plan, \$250,000, was funded by the Alabama Department of Conservation and Natural Resources, the Alabama Department of Environmental Management and Gulf Asphalt, the US EPA, the Mobile Area Water and Sewer System, Mobile County, and MBNEP. It is intended to provide a roadmap for restoring the watershed and improving the Creek and its tributaries by addressing 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.

Toulmins Spring Branch – Engagement and Drainage Study

Within the Three Mile Creek watershed, one low-income, traditionally-underserved community located in the vicinity of Toulmins Springs Branch (TSB) faces a disproportionate burden of environmental impacts related to development, climate change, and sea level rise. This community was developed in a lowland area available to them because of its low commercial/economic value and vulnerability to flooding and pollutant loads concomitant with land use change. With the frequency and intensity of weather events predicted to increase, this community faces disproportionate effects of climate change, and any problems they are currently experiencing will only get worse.

Definition of community- a feeling of fellowship with others, as a result of sharing common attitudes, interests, and goals. MBNEP recognizes the need for community engagement to educate this susceptible population about the science underlying the vulnerabilities associated with where they live and impacts they face in the future, and about ways to adapt to changing conditions. In an effort to engage this community in a meaningful way, MBNEP joined forces with MLK Avenue Redevelopment Corporation to establish a Community Resiliency Leadership academy. The goal of this program was to teach potentially-affected community members about how to participate in decisions about proposed activities that will affect their environment and/or health and how a community's contribution can influence local government management decisions. The Leadership academy provided the foundation for future adaptation planning in this neighborhood. The premise being- before you can build community resiliency, a "community" is necessary.

Floods are the leading cause of natural disaster losses in the United States, costing approximately \$50 billion in property damage in 1990s alone (NAP 2009). In addition to property damage, floods also kill about 140 people each year in the United States alone (USGS 2006). FEMA lists flooding as the most familiar and frequent natural disaster in Alabama. From 1998 to 2007, insured flood losses totaled more than \$730 million (FEMA fact sheet 2008). Residents living on Alabama's coast are at a heightened flood risk during hurricane seasons due to much of the area's low lying elevation. The underserved residents of the TSB community (100% African American) are not only susceptible to chronic flooding (elevation 0 ft. Lat./Lon. 30,717689, -88.066944), but according to a soon to be published watershed management plan for the Three Mile Creek watershed, this area will also experience impacts related to both sea level rise and increased storm surge.

In spring of 2014, Mobile County asked for MBNEP assistance to identify solutions to the chronic flooding in this area that was costing more and more money for infrastructure repairs. The assistance requested included identification of target areas for increased stormwater management and intensive education of the public and public works personnel related to low impact development practices that can aid in reducing stormwater runoff. Given current flooding rates coupled with predictions of increased flooding events related to sea level rise and storm surge, MBNEP has identified this community as a priority for intensive adaptation planning particularly as it relates to where environmental protection is needed, what parts of this community can be accommodated, future resiliency planning for critical infrastructure and identification of areas that may need to be vacated as waters rise.

Working with a Community Solutions fellow from Bangladesh, Maharam Dakua, who performed community outreach activities, Auburn University delineated the watershed boundary of TSB and extracted all of its drainages to resolve potential errors on the FEMA maps. They used topographic maps and ground survey to accurately define the watershed boundary and identify all drainages flowing into TSB.

At several TSB branches they installed pressure transducers set to record water levels at 15-min intervals with intentions of recording data from a number of rain events with greater than one-inch total rainfall. They also measured discharge. Paired discharge-water level data will be used to develop rating curves which will be utilized to convert the water level time series into flow time series. These data will be used to determine which parts of the TSB watershed generate more or less runoff per unit area and to calibrate and validate a model they are developing for the TSB watershed.

Auburn is near completion of a watershed model for the TSB watershed using the Storm Water Management Model (SWMM) developed by the EPA, a data intensive model that can be used to guide development of a range of low impact development controls. Floodplain maps have been generated for various return period storm events including 10, 50, and 100-year and flood generated areas have been mapped by “disconnecting” each subwatershed from the rest of the watershed to identify which contribute most to flooding and to guide mitigation efforts. The SWMM model has been calibrated and validated for water quality (nutrient concentrations) and to evaluate LID options.

The Nature Conservancy continues to seek funding for measures to develop a “stormwater park,” with recommended BMPs such as constructed wetlands, infiltration swales, or gross pollutant removal structures to enhance water quality and reduce flow.






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. With the design completed, construction is pending. Additionally, the Mobile County Health Department secured funding through a Sybil Smith Trust Grant to construct a kayak launch at Tricentennial Park and extend the Greenway west to Fillingim Street.

Objectives 2016-2017 year:

1. Partner with Mobile County to implement Drainage Plan
2. Establish Conservation Corps
3. Support development of first leg of Three Mile Creek Trail

ERP: INTERTIDAL WATERSHEDS: PLANNING

Project Number	ERP 1405
Title	Watershed Management Plans
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 (2013-2014)	\$ 0 (Revised)
Year 2 (2014-2015)	\$ 0 (Revised)
Year 3 (2015-2016)	\$ 0
Year 4 (2016-2017)	\$ 0
Other Funding	\$ 2,227,000 NFWF GEBF
Total	\$ 2,227,000 * Fed RESTORE partial funding
Match/Leverage	
Lead/Partners	MBNEP/ADCNR/City of Foley/Other

Bayou La Batre	253,589.00
Bon Secour, Skunk, Oyster Bay	335,000.00
Dog River Complex	275,000.00
Weeks Bay (Fish, Magnolia Rivers)	484,230.00
West Fowl River	200,000.00
Wolf Bay *	125,000.00
Tensaw Apalachee *	127,181.00
Fowl River	250,000.00
Project Delivery	177,000.00
	2,227,000.00

The Bayou La Batre Watershed covers over 19,500 acres in south Mobile County and flows southwesterly into Portersville Bay and Mississippi Sound. The City of Bayou La Batre, which is located within the watershed, is the source of the urban component of the watershed. Total land use breakdown: 13% urban, 32% agricultural land, 51% forested, 2% water/wetlands. This plan is **currently underway**.

The Bon Secour River Watershed covers over 21,400 acres in southwest Baldwin

County. The Bon Secour River originates in the City of Foley, and flows southwesterly into Bon Secour Bay, the Intracoastal Waterway and Oyster Bay. Total land use breakdown: 5% urban, 64% agricultural land,

22% pasture land, 6% forested, 2% water/wetlands. Due to similar stakeholder interests, this watershed was combined with Skunk Bayou and is **currently underway**.

The Dog River Watershed covers 55,000 acres in southwest Mobile County. The northern portion of the watershed includes part of downtown Mobile and is highly urbanized. Total land use breakdown: 37% suburban, 37% forested land, 16% urban, 5% wetlands/water and 5% other uses. Due to proximity, Garrows Bend was included as part of this planning. ADEM classifies the lower portion of Dog River, from its confluence with Halls Mill Creek to its mouth at Mobile Bay, for use as Swimming & Whole Body Contact. The upper portion of Dog River and its tributaries are classified for Fish & Wildlife. Two approved TMDLs for Organic Enrichment/Dissolved Oxygen, Two approved TMDLs for Pathogens, 303(d) listed for sedimentation (TMDL scheduled for 2018). The watershed is significantly impacted by nonpoint source pollution, including sedimentation from erosion, litter from stormwater runoff, nutrient enrichment and elevated levels of fecal coliform bacteria. This plan is **currently underway**.

The Weeks Bay Watershed encompasses approximately 130,000 acres (203 square miles) located in southwest Baldwin County. Weeks Bay is a shallow approximate 1,700 acre sub-estuary of Mobile Bay. The watershed includes the Fish River and Magnolia River drainage basins, as well as some small coastal streams such as Weeks Branch that enter Weeks Bay directly. The watershed encompasses an area approximately 27 miles long and 12 miles wide. Portions of nine municipalities lie within the Weeks Bay Watershed – Fairhope, Daphne, Spanish Fort, Loxley, Silverhill, Robertsedale, Summerdale, Foley, and Magnolia Springs. The Fish River drainage basin begins near the town of Stapleton, and flows in a southerly direction. The eastern boundary of the Fish River basin is near U.S. Highway 59 and the western boundary is near U.S. Highway 31 (Stapleton to Spanish Fort), thence southward near Alabama Highway 104 (Spanish Fort to Fairhope), thence southward near U.S. Highway 98 to Mobile Bay. The Magnolia River drainage basin has its headwaters near Summerdale and flows in a southwestward direction to Weeks Bay. This plan is **currently underway**.

The West Fowl River Watershed covers over 20,000 acres in southeastern Mobile County, flows southwesterly into Heron Bay, Portersville Bay and Mississippi Sound. Although relatively undeveloped, portions of the watershed are within the urbanized area of the City of Bayou La Batre. Total land use breakdown: 6% urban, 2% agricultural land, 19% forested, 1% water, 71% other uses. This plan has been **initiated** and will ultimately be combined with Bayou La Batre and Dauphin Island as the Mississippi Sound Complex.

The Wolf Bay Watershed drains over 44,000 acres in southwest Baldwin County. The northwestern portion of the watershed includes a rapidly urbanizing area of the City of Foley. Total land use breakdown: 23% forested land, 27% agricultural land, 27% urban/suburban, 16% wetlands/water and 7% other uses. This plan will be **initiated** mid-summer, 2016.

The Tensaw-Apalachee Watershed covers over 37,000 acres in Mobile and Baldwin Counties. Portions of the watershed drain the highly urbanized areas of downtown Mobile as well as Spanish Fort and Daphne along the eastern shore of Baldwin County. Land use breakdown: 21% urban, 3% agricultural land, 9% forested, 26% water/wetlands. MBNEP is currently **in discussion** with ADEM, US Army Corps of Engineers and ADCNR to determine the best way to proceed with this planning process.

The Fowl River Watershed (HUC 031602050206) encompasses 52,782 acres, drains much of southern Mobile County, and is a direct contributor to Mobile Bay. Its headwaters are located near the Mobile suburb of Theodore, AL and it splits just south of Bellingrath Gardens into East Fowl River, which flows northeasterly into Mobile Bay, and West Fowl River, which flows south into Mississippi Sound. Land use in the Fowl River Watershed is varied and characterized as urban, residential, and rural. Twenty-one percent of the watershed area is classified as urban, 15% as crop or pasture land, and 63% as forested. Stakeholder

concerns include loss of wetlands and shoreline erosion, largely related to recreational boat use. Increasing development and continuing erosion and sedimentation threaten water and habitat quality. This plan is complete and implementation has begun.

Objectives 2016-2017:

1. Complete 4 watershed management plans
2. Begin 2 watershed management plans

PROJECT DETAILS: TECHNICAL ASSISTANCE/ CAPACITY BUILDING



Activity	Year One 2013-2014 (Revised)	Year Two 2014-2015	Year Three 2015-2016	Reprogram Funds	Year Four 2016-2017	Total EPA Budget All Years
Technical Assistance and Capacity Building						
Alabama Water Watch	5,000.00		10,000.00			15,000.00
Citizen Monitoring				20,000.00		20,000.00
HS Education and Monitoring				20,000.00		20,000.00
Estuary Corps Environmental Experts Video	9,000.00					9,000.00
CWP Facilitator	10,000.00	12,500.00	12,500.00		17,500.00	52,500.00

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: VOLUNTEER ECOSYSTEM MONITORING PROGRAM W/AWW

Project Number	TAC1401
Title	Alabama Water Watch Coastal Program Support & Expansion
Values Supported	 
Purpose	To expand citizen stewardship of the estuary through voluntary water quality monitoring activities
Outputs/Deliverables	Train 50 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 (2013-2014)	\$ 5,000
Year 2 (2014-2015)	\$ 40,000 (Committed to CAC Monitoring supplies, Monitoring education).
Year 3 (2015-2016)	\$ 10,000
Other Funding	\$ 0
Total	\$ 55,000
Past Year Funding	
Match/Leverage	AWW
Lead/Partners	AWW/MBNEP, CAC

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. To assist the CAC in achieving this goal, MBNEP has secured funding and will release a Request for Proposals to coordinate citizen training activities focused in watersheds where comprehensive watershed management planning is or will be occurring over the next year. AWW workshops are envisioned as a likely component in this strategy.



AWW workshops will be held on the coast to train or recertify at least **50 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.

In addition to the water monitor training workshops, MBNEP will work to increase the capacity of AWW in coastal Alabama. Efforts will focus on several issues that have been determined to be priorities for the coast:

- Researching the possibilities for citizen friendly testing methods for enterococcus bacteria in brackish/salt water
- Adopting a refractometer method for testing salinity
- Increased number of coastal training opportunities with a particular focus on youth programming


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 2016-2017:

1. Train 20 citizens to undertake volunteer water quality monitoring.
2. Support development of “Water Rangers” online data portal for volunteer data entry.

TAC: COASTAL CLEAN WATER PARTNERSHIP- NONPOINT SOURCE POLLUTION PROGRAM

Project Number	TAC1402
Title	Coastal Clean Water Partnership- NPS Pollution Program
Values Supported	
Purpose	Assess, plan and implement projects to address nonpoint source pollution through the Clean Marina Program and community based watershed management plans to guide grassroots actions aimed at addressing waterways listed on the State's 303(d) Impaired Water bodies List
Outputs/Deliverables	One completed Watershed Management Plan, NEMO video/education program; seed funding to support Clean Marina BMPs
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 water quality monitoring, Support TMDL implementation
Year 1 (2013-2014)	\$ 10,000
Year 2 (2014-2015)	\$ 12,500
Year 3 (2015-2016)	\$ 12,500
Year 4 (2016-2017)	\$ 17,500
Other Funding	\$ 52,826 (BC/MC WCD-ACWP)
Total	\$ 105,326
Match/Leverage	Auburn University, Mississippi Alabama Sea Grant Consortium
Lead/Partners	BCWSD/ MBNEP, A CWP, Auburn University

The Alabama Clean Water Partnership, a statewide 501(c)(3) non-profit organization, is a diverse and inclusive coalition of public-private interest groups and individuals working together to improve, protect and preserve water resources and aquatic ecosystems in Alabama. Through the ACWP, ten River Basin Facilitators and a Statewide Coordinator are tasked with implementing watershed efforts in order to achieve the following goals:

- Improved Communication to promote information sharing and nonpoint source education, broad awareness of resource availability, and networking with others facing the same challenges.

- Data and Information Sharing through the creation of a communications and technical assistance network so that a more complete account of each river's water quality is available when making watershed decisions.
- Improved Coordination between community-based groups, municipalities, and industries to prevent the duplication of effort and to acquire, streamline and maximize resources.
- Opportunity for Collaboration in decision-making and the development of watershed management plans, as well as in the implementation of watershed projects and TMDLs (Total Maximum Daily Loads).

The Coastal Alabama Clean Water Partnership Facilitator is a shared position between the Partnership, the Mobile and Baldwin Counties' Soil and Water Conservation Districts, the MBNEP, Auburn University and Mississippi Alabama Sea Grant. The facilitator is considered a non-point pollution specialist, coordinating watershed planning, conducting outreach on stormwater management and related issues, and coordinating the Clean Marina program for Mississippi and Alabama.

In the coming year, the Coastal Basin Facilitator will continue to seek out funding sources to help address stormwater problems that have prevented many interested marinas from being designated as clean marinas.


In addition, the facilitator will participate in ongoing activities:

- Coastal Alabama Rain Barrel Program – The rain barrel program conducts workshops in coastal Alabama and Mississippi where residents build 55-gallon rain barrels and includes educational sessions explaining practical measures to protect water quality and conserve water resources.
- Improve elected officials' understanding of issues that impact environmental health and comprehensive land use and water resources management.
- Minimize impacts and amount of contaminated stormwater runoff entering coastal waterways by supporting community clean ups, storm drain marking, and participation in the Create a Clean Water Future campaign
- Continue to work with efforts through the MBNEP PIC and NRCS to identify and prioritize coastal watersheds for the development and implementation of WMPs for coastal 12-digit HUC watersheds.

Objectives 2016-2017:

1. Support comprehensive watershed planning throughout coastal area.
2. Coordinate the Government Networks Committee
3. Conduct four rain barrel workshops

TAC: DAUPHIN ISLAND HISTORY TO FUTURE – COMPLETE

Project Number	TAC1403
Title	Dauphin Island History to Future Project
Values Supported	
Purpose	The purpose of this project is to provide Dauphin Island with a documentation of past community resiliency to inform future resiliency planning.
Outputs/Deliverables	18 ½ to 20 minute video/film of an intergenerational Oral History of Dauphin Island
Outcomes	Improved ecosystem function and protection; Improved community management of ecosystem restoration and protection activities; expanded community engagement, ownership, resilience
Clean Water Act Relevance	Support water quality standards; improve wetland function and coverage
Year 1 (2013-2014)	\$ 0
Year 2 (2014-2015)	\$ 0
Year 3 (2015-2016)	\$ 0
Year 4 (2016-2017)	\$ 0
Other Funding	\$ 12,500 (past EPA Grant)
Total	\$ 12,500
Match/Leverage	Town of Dauphin Island
Performing Organization(s)	MBNEP


With Heritage and Resiliency both determined to be among the things most valued by residents of coastal Alabama, MBNEP will undertake production of an oral history video to explore how resiliency “habits” or practices from “back in the day” compare to how we currently interact with each other and our environment. In partnership with Dr. Greg Waselkov, Professor of Anthropology at the University of South Alabama, the concept for this video production is for present-day Dauphin Island kids to interview older residents. Their questions will investigate differences in how the mid-twentieth century Dauphin Island community built, travelled, dealt with natural features like dunes, marshes, and shorelines, fished, interacted with one another, prepared for and recovered from tropical weather events, etc.

Before the technological advances of the late twentieth century and the rush of human populations to the coasts, structures were built to withstand natural forces, “walkability” was more than a convenient option, dunes were valued for the protection they provided from waves and flooding, and smart concepts were employed not as innovative trends, but because they were worked and were passed between successive generations. This educational video will employ 21st Century technology to revisit the wisdom that preceded it, in hopes that current coastal residents can employ more of the values and practices that allowed previous generations to enjoy the coastal lifestyle and the challenges it presented.

Objectives 2016-2017:

Complete.

TAC: ESTUARY CORPS

Project Number	TAC1404
Title	Estuary Corps
Values Supported	
Purpose	To promote the wise stewardship of water quality and living resources of Alabama’s estuaries through education, volunteer experiences, and career path guidance
Outputs/Deliverables	Estuary Corps Video
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, Improve monitoring of wetland function and coverage
Year 1 (2013-2014)	\$ 9,000 (reprogrammed \$1,000 to Oyster Gardening)
Year 2 (2014-2015)	\$ 0
Year 3 (2015-2016)	\$ 0
Other Funding	\$ 0
Total	\$ 9,000
Match/Leverage	
Lead/Partner	MBNEP/DISL

Engaging volunteers in activities that improve estuary conditions is vital to the long-term sustainability of our coastal environment. Building community knowledge and ownership through citizen involvement activities lays a foundation for ongoing care of the water quality and living resources associated with this estuarine system. A Mobile Bay Estuary Corps program was undertaken in two middle schools- Phillips Preparatory School and Spanish Fort Middle School during the 2012-2013 year. MBNEP, Alabama Coastal Foundation (ACF) and Dauphin Island Sea Lab (DISL) partnered to create a Mobile Bay Estuary Corps “after school” program to introduce students to citizen involvement opportunities, volunteer experiences, and







environmental issues of concern. A second year of the program added a third site, the Cody Road Boys and Girls Club.

The original vision for the Mobile Bay Estuary Corps was to “recruit volunteers willing to be on ‘retainer’ to carry out a range of activities for at least one year increments including but not limited to water quality, living resource, and other ecological monitoring, habitat restorations, and invasive species control. As an Estuary Corps member, education, community outreach and training opportunities will be developed to enrich the experience. Volunteers would typically be recent graduates of high school or college, but could also include people wanting time off from established careers and those looking for meaningful activities during retirement.” As MBNEP transitions to this new corps model, it is working with Alabama Coastal Foundation to provide outreach materials to its middle school program. A series of videos is being produced to highlight area environmental experts, why they do what they do and why it is important to protect our environment.

Objectives 2016-2017:

Complete.

TAC: COASTAL MARINE PLANNING

Project Number	TAC1405
Title	Alabama Coastal Marine Planning
Values Supported	     
Purpose	Achieve a balance among the many uses of the Mobile Bay to sustain a long-term comprehensive approach to environmental management
Outputs/Deliverables	Marine Spatial Planning Vision, Goals, and Objectives- Stakeholder engagement; visualization tool including development of new data
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	
Year 1 (2013-2014)	\$ 0
Year 2 (2014-2015)	\$ 0
Year 3 (2015-2016)	\$ 0
Other Funding	\$ 367,606 ADCNR (*47,800 from 2012 ADCNR Funding)
Total	\$ 0
Match/Leverage	\$
Lead/Partners	Alabama State Port Authority/ADCNR, MBNEP, MASGC, others

MBNEP, with guidance from the Working Waterfronts Coalition and a resource manager based steering committee, has been working with the Geological Survey of Alabama to create a Coastal Marine Planning (CMP) GIS-based Decision Support Tool. This involves developing a new support tool or adapting an existing tool to the needs of CMP in coastal Alabama. GSA will update the Alabama Comprehensive GIS Inventory of Coastal Resources. This will include:

- GSA will meet with the MBNEP, ADCNR, the Alabama Working Waterfront Coalition, Auburn University, and other stakeholders to convey progress, review, prioritize CMSP data collected to date, and identify data gaps. This will include expanding stakeholder input to assist the steering committee in addressing goals and objectives of the CMSP as established in previous phases.
- GSA will finalize thematic data tabulated to date which was reflected in Phase III. This includes addressing data redundancy and metadata compliance. As funds permit in Phase IV, we will incorporate additional geospatial data into the data inventory and into ArcGIS projects.

- GSA will develop categorical ArcGIS projects with emphasis on legend, the display of an appropriate attribute field for each theme, and appropriate symbology. Each categorical ArcGIS project (.mxd) will be published into an ArcReader format for digital media dissemination and review.
- Deliverables will include quarterly progress reports to the MBNEP and development of categorical ArcReader projects on interactive compact disc (CD-ROM) or digital video disc (DVD) media to convey the geospatial thematic layers of this project. The digital media will be constructed with an autorun executable to display an intuitive interface for end users to access a download option for ArcReader, the current inventory of geospatial data, metadata, and the functionality to explore the data file structure. Ten versions of this beta release will be provided in support of project status and review.

Auburn University's School of Architecture, Planning, and Landscape Architecture will collaborate with GSA to develop this GIS support tool. Their scope of work includes:

- GIS data review and coordination with past efforts, including meetings with GSA and provision of additional CMSP-themed spatial GIS inventory layers to include additional social and cultural dimensions to the CMSP inventory, including commercial fishing, general historically and archeologically significant sites, working waterfronts, and shipwrecks.
- Stakeholder engagement, including meetings to discuss working waterfronts, commercial fishing, and Corps of Engineers.
- Development of a GIS viewer tool for public use for Mobile Bay, and Mobile and Baldwin county shorelines (10-foot contour) to federal waters.
- Assessment of tool functionality and testing the tool with stakeholders.

Objectives for 2016-2017:

1. Complete and develop APP for CMP tool.

PROJECT DETAIL: EDUCATION AND PUBLIC INVOLVEMENT







Activity	Year One 2013-2014 (Revised)	Year Two 2014-2015	Year Three 2015-2016	Reprogram Funds	Year Four 2016- 2017	Total EPA Budget All Years
Education and Public Involvement						
Management Conference Support/Partnerships		3,000.00			2,500.00	5,500.00
Newsletter		8,000.00	8,000.00		8,000.00	24,000.00
Interpretive Signage					5,000.00	5,000.00
Video Production Reserve	14,000.00	5,000.00	20,000.00		5,000.00	44,000.00
Special Events	14,435.00	8,000.00	8,000.00		5,000.00	35,435.00
Promotional SWAG	5,000.00	3,210.00			4,176.00	12,386.00
Public Awareness- Clean Water Future Campaign		40,330.00	29,793.91		10,000.00	80,123.91
Oyster Gardening/ Oyster Trail Sponsorship	1,000.00		2,000.00		1,000.00	4,000.00
DISL Education Salary Support	45,000.00	45,000.00	45,000.00		60,000.00	195,000.00

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

Project Number	EPI1401
Title	Management Conference Support
Values Supported	     
Purpose	Sustain and expand stakeholder involvement in the implementation of the CCMP 2013-2018
Outputs/Deliverables	4 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 (2013-2014)	\$ 0
Year 2 (2014-2015)	\$ 3,000
Year 3 (2015-2016)	\$ 0
Year 4 (2016-2017)	\$ 2,500
Other Funding	\$ 0
Total Funds	\$ 5,500
Match/Leverage	
Lead/Partners	MBNEP/All members of the management conference

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.

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 2016-2017 year:

1. Host 6 tours
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
6. Continue preparation of technical report of necessary changes to strengthen governance of coastal resources
7. Create watershed consortiums for Fowl River, Fish River, Bon Secour Complex

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 (2013-2014)	\$ 6,000 (Included in Program Implementation/ Admin Budget)
Year 2 (2014-2015)	\$ 8,000
Year 3 (2015-2016)	\$ 8,000
Year 4 (2016-2017)	\$ 8,000
Other Funds	\$ 30,000 (ADCNR)
Total	\$ 60,000
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 2016-2017 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 (2013-2014)	\$ 0 (Note: These signs are part of past year grant reprogram)
Year 2 (2014-2015)	\$ 0
Year 3 (2015-2016) revised	\$ 0
Year 4 (2016-2017)	\$ 5,000
Other Funding	\$ 0
Total	\$ 5,000
Match/Leverage	
Lead/Partners	MBNEP

MBNEP will develop and install interpretive signs in public places adjacent to on the ground projects undertaken to educate the public about: 1) Where they are in the watershed; 2) What the ecosystem is like in that area; and 3) What the project entailed. These signs have already been installed at Helen Wood Park, Dog River Park, Brooks Park, Steele Creek Lodge, and Prichard's Jackson Reading Park. In addition, MBNEP will install roadway signage to create awareness within the community about the different watersheds within the coastal area. These signs will be installed in concert with watershed planning.

Objectives 2016-2017:

1. Install watershed signage in Fowl River, Bayou La Batre, Bon Secour watersheds

EPI: VIDEO PRODUCTION

Project Number	EPI1404
Title	Video Production
Values Supported	     
Purpose	To educate children and adults about the estuary, its people, and its flora and fauna.
Outputs/Deliverables	Two educational videos
Outcomes	Increase public awareness of environmental issues; Increased knowledge of environmental issues and stressors
Clean Water Act Relevance	
Year 1 (2013-2014)	\$ 14,000
Year 2 (2014-2015)	\$ 5,000
Year 3 (2015-2016)	\$ 20,000
Year 4 (2016-2017)	\$ 5,000
Other Funding	\$
Total	\$ 44,000
Match/Leverage	
Lead/Partners	MBNEP







In 2015, MBNEP produced two well-received videos. *Understanding Your Watershed* was created as a primer for elected officials and others to learn about watersheds, stormwater, and nonpoint source pollution and is widely used in outreach efforts. *The Path Towards Coastal Restoration* was prepared for the MBNEP's annual Management Conference breakfast and it describes projects and initiatives that have represented MBNEP efforts over the preceding calendar year. These two videos have been added to MBNEP's growing library of educational videos.

In the coming year, we will continue making short videos to educate resource managers about new technologies and to highlight different cultural aspects of coastal Alabama.

Objectives for 2016-2017:

1. Produce at least one 5-7 minute video on new stormwater management technologies

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 (2013-2014)	\$14,435
Year 2 (2014-2015)	\$ 8,000
Year 3 (2015-2016)	\$ 8,000
Year 4 (2016-2017)	\$ 5,000
Other Funding	
Total	\$ 35,435
Lead/Partner	Community groups, Management Conference members







Preserving our coast's heritage and culture was identified by the community due to concerns that the bay and estuarine waters providing such pleasure to many as youth will not be there for their grandchildren to enjoy in the future. This subject takes into account the more than 10,000 years of history related to the estuary, as evidenced by ancient oyster shell mounds like those found on Dauphin Island, the deltaic remains of Indian cultures from long ago, sunken Civil War ships scattered across the estuary bottom, and the anglicized names of residents reflecting the French heritage of coastal Alabama.

Heritage and culture are not limited to fishing villages and working waterfronts, but include the concerns of grandparents who remember a clear Dog River unencumbered by shoreline trash; a navigable D'Olive Bay not choked by sediment; a flourishing Delta without dying trees or eroded marshes; and intact, sea oat-covered sand dunes. Preserving these treasures for their grandchildren and future generations could not be more important

Objectives for 2016-2017:

1. Support a minimum of 5 community events

EPI: COMMUNITY AWARENESS CAMPAIGNS: CLEAN WATER FUTURE

Project Number	EPI1407
Title	Create a Clean Water Future Campaign
Values Supported	     
Purpose	To educate the residents of Baldwin and Mobile Counties about ways to decrease harmful stormwater runoff
Performing Organization(s)	MBNEP
Outputs/Deliverables	Production of educational materials to be distributed at community meetings and events, a marketing campaign
Outcomes	Increase public awareness of environmental issues; Increased knowledge of environmental issues and stressors
Clean Water Act Relevance	
Year 1 (2013-2014)	\$ 0
Year 2 (2014-2015)	\$ 40,330 (Revised)
Year 3 (2015-2016)	\$ 29,800
Year 4 (2016-2017)	\$ 10,000
Other Funding	
Total	\$ 80,130
Match/Leverage	This campaign is part of past year grant reprogram
Lead/Partners	MBNEP

Stormwater runoff, considered by the EPA to be the number one source of pollution to American waters, is the primary threat to water quality in coastal Alabama. Exacerbated by increased impervious surfaces associated with development, it causes flooding and carries fertilizer, pesticide, animal waste, residues from automobiles and road surfaces, organic debris, trash, and all of the residues of urban and suburban living, untreated, into creeks, streams, rivers, and ultimately the Bay and Gulf. The force generated by increased volumes and velocities of runoff degrades channels, erodes stream banks, and adds sediment loads that increase turbidity and decrease habitat quality. Baldwin and Mobile County water bodies listed on the State 303(d) list are overwhelmingly impaired by pollutants conveyed by stormwater. Local governments, already responsible for stormwater management, face increased Federal regulations with limited resources.

While the public demands better management, education is needed to promote individual, residential stormwater management; encourage changes in policy and regulations to address problems at their source; and encourage regional/watershed level management to reduce costs and increase benefits.

Spring boarding off of the failed local referendum in Baldwin County, MBNEP has joined in partnership with the many entities, including local municipalities, community groups, the Clean Water Partnership, Weeks Bay National Estuarine Research Reserve, ACF, and Mobile Baykeeper to build a comprehensive program for educating government officials, the development community, educators and students and the general public about the impacts of stormwater runoff and changes that need to be made at the individual and community levels to improve how it is managed by watershed. This group has formed the Coastal Alabama Stormwater Team (CAST) to leverage efforts at improving stormwater management throughout coastal Alabama


MBNEP has entered into a contract with Mobile Baykeeper to conduct a Stormwater Media Campaign in Mobile and Baldwin counties. Goals of the campaign are to provide residents with a clear understanding of stormwater, its impact, and the need for improved stormwater management. In addition, the campaign will encourage good stewardship of the watershed through positive personal and community (governmental) stormwater management. Objectives of the campaign include awareness of stormwater issues including the importance of clean water to the recreational and commercial uses of our waters (our way of life), awareness of economic degradation caused by poor stormwater management and its ensuing damage to the environment, and awareness of the cost of prevention versus the cost of restoration.

In addition to the above, MBNEP will execute cultivation strategies that educate potential new partners about the issues, challenges and opportunities for environmental improvements and engage them in helping to develop solutions that can be undertaken by all sectors of the community. During the next fiscal year, MBNEP will also seek out opportunities within the community to engage place-based grassroots organizations in developing programs, including additional community-based clean ups, aimed at increasing these groups' knowledge about their watersheds and ecosystem functions and the stressors that can negatively impact the system's function and value.

Objectives for 2016-2017 year:

1. Continue implementation of CLEAN WATER FUTURE campaign
2. Engage in Clean Water Future Day

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 (2013-2014)	\$ 5,000
Year 2 (2014-2015)	\$ 3,210
Year 3 (2015-2016)	\$ 0
Year 4 (2016-2017)	\$ 4,176
Other Funding	
Total	\$ 12,386
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 and ecosystem stressors over which we have control, such as excess nutrients, stormwater, and nonpoint source pollution.

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.

Objectives for 2016-2017 year:

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

EPI: OYSTER GARDENING

Project Number	EPI
Title	Oyster Gardening
Values Supported	
Purpose	To teach citizens about oysters and their importance to bay water filtration and habitat creation and to restore relic oyster reefs in Mobile Bay
Outputs/Deliverables	Oysters ready for planting on public reefs
Outcomes	Increase in community understanding about the value of oysters in the ecosystem.
Clean Water Act Relevance	Improved ecosystem function and protection; Improved community understanding of ecosystem restoration and protection activities.
Year 1 (2013-2014)	\$ 1,000 (reprogrammed from Estuary Corps)
Year 2 (2014-2015)	\$ 0
Year 3 (2015-2016)	\$ 2,000
Year 4 (2016-2017)	\$ 1,000
Other Funding	\$ 0
Total	\$ 4,000
Match/Leverage	
Lead/Partners	AUMERC, Volunteers

The Mobile Bay Oyster Gardening Program is a volunteer based project which focuses on education, restoration/enhancement, and research by bringing the reef to the people. Now in its eleventh year of operation, Oyster Gardeners have produced nearly 500,000 oysters for restoration and enhancement efforts within Mobile Bay.

The Gardeners, Garden Adopters, corporate partners, and agency partners make the program successful, and there are opportunities for everyone to get involved. Program partners include The Gardeners & Adopters, The Mississippi-Alabama Sea Grant Consortium, The Alabama Cooperative Extension System, The Mobile Bay National Estuary Program, The Auburn University Marine Extension and Research Center, The Department of Fisheries and Allied Aquacultures -Auburn University, and The Alabama Department of Conservation and Natural Resources State Lands-Marine Resources Division of Alabama.

Objectives for 2016-2017 year:

1. Annual sponsorship of this program supports ongoing purchases of gardening supplies and outreach activities.

MPA: PROGRAM IMPLEMENTATION

Func	Activity	Year One 2013-2014 (Revised)	Year Two 2014-2015	Year Three 2015-2016	Reprogram Funds	Year Four 2016- 2017	Total EPA Budget All Years
MPA	Salaries and Operations	479,245.00	470,030.00	570,000.00		602,695.00	2,121,970.00
MPA	Indirect Charges	104,423.00	102,388.00	108,794.09		128,305.00	443,910.09

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. The cost of this administrative support is captured in an indirect charge which is currently 15% of all expenditures related to the US EPA grant and any other external grants awarded to the MBNEP. On a case to case basis, DISL is willing to negotiate the indirect rate when necessary for grant application purposes. Otherwise, based on a 15% indirect charge, the MBNEP is able to capture the 28.2 % unrecovered costs as additional match for the program.

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 last two annual retreats, MBNEP’s Executive Committee (EC) has evaluated the functioning of the current Management Conference structure and assessed 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.

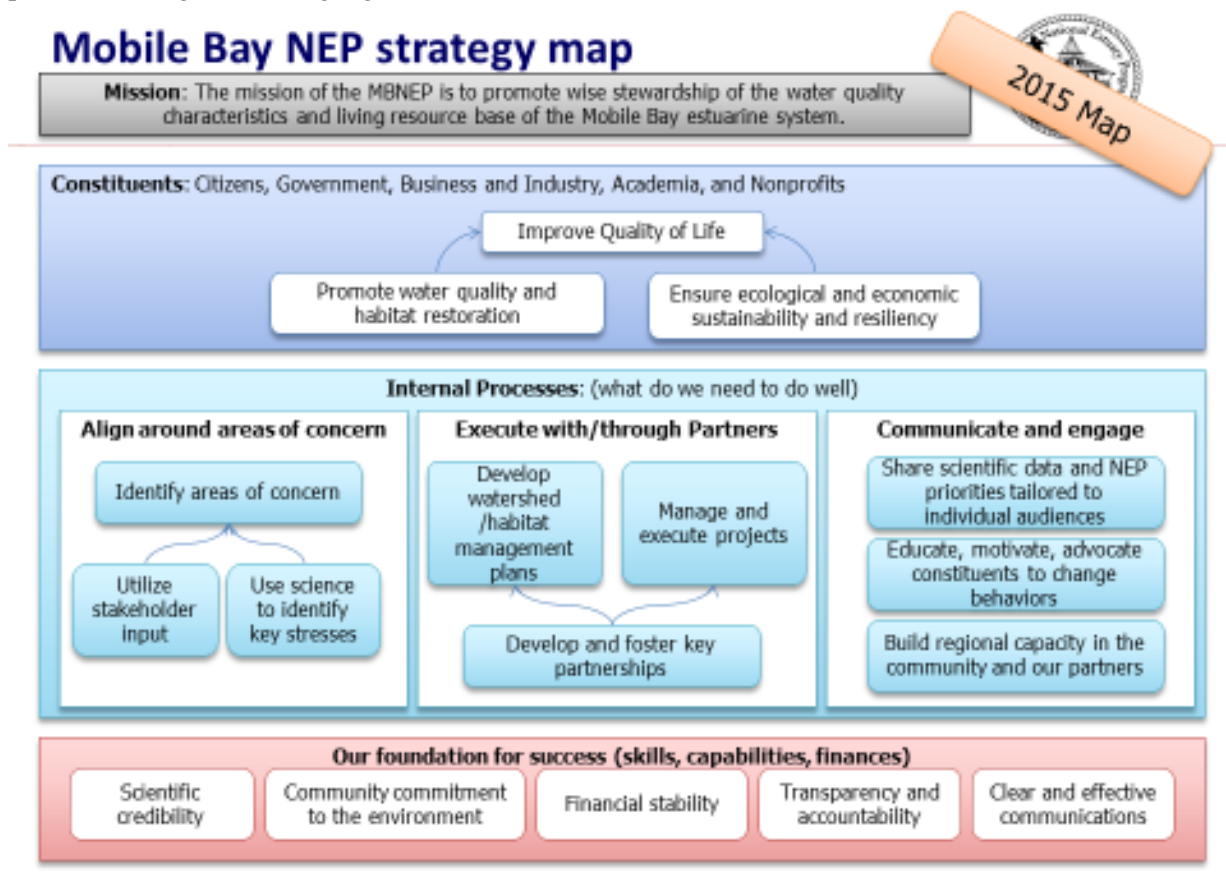
Purpose: The MBNEP brings together an engaged and diverse community committed to integrating environmental health with community and economy to develop consensus on what our ecosystem priorities are, how to achieve them, and how to facilitate/promote their implementation.

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 CCMP 2013-2018 through improving program transparency, communications, and community awareness. This will be done by development of a communications plan for promoting the new CCMP, coordination of special events to expand MBNEP partnerships, development of a public awareness campaign to highlight emerging environmental issues, 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
Program 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.
Deputy Director	Amy Newbold	Oversees development of programs supporting implementation of the CCMP; handles project design, development and implementation; assists with financial resource development and management; assists with implementation of monitoring framework; and other activities as deemed necessary
Watershed Protection Coordinator	Tom Herder	Oversight of all restoration-related projects including project design, implementation, coordination and monitoring; develop, initiate and coordinate baseline data collection; facilitate the transfer of technical information; prepare public outreach efforts for the general public on watershed issues; 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 Advisory Coordinator	Renee Collini	Coordinates activities of Science Advisory Committee in their development of a watershed monitoring framework to measure ecosystem health
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.
Clean Water Partnership Facilitator	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 Specialist	Dixie Pomerat	Provides services associated with office manager as well as technical editing, social media strategies

TRAVEL

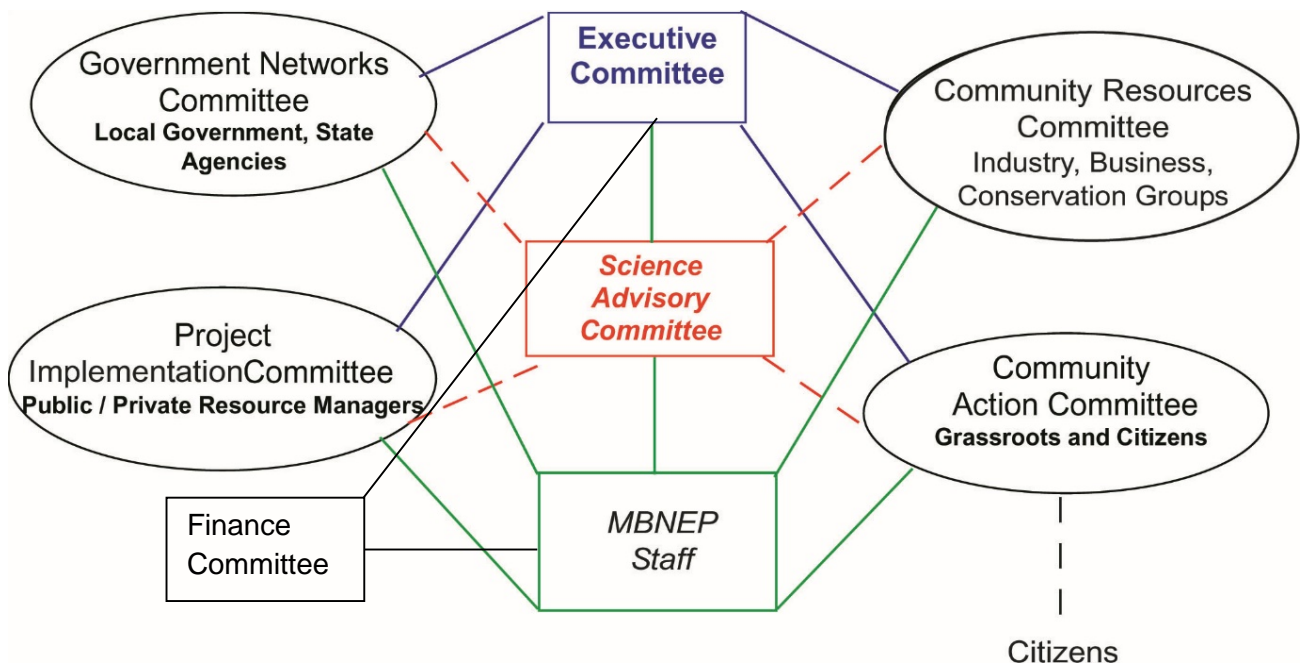
The administration amount includes \$15,000 for travel related to outreach and technology and information transfer. Program staff will participate in regional, state, and national conferences and meetings relevant to estuarine management. Attendance at Association of National Estuary Programs workshops 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 four main committees: Community Action Committee, Community Resources Committee, Government Networks Committee, and Project Implementation Committee.



- **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 the target area 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 and a sound basis to be used by the other committees in their decision making processes.
- **The Finance Committee** includes community leaders that are committed to assisting 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 1.6 million in federal dollars with more than 7 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. To date, MBNEP has received over \$800,000 in Gulf of Mexico Program (GOMP) grants to support a water management strategy for Eight Mile Creek, wetlands resource measurement baseline development, SAV gardening, Oyster gardening programs, the creation of a strategic assessment of priority habitats and two educational videos.

COASTAL IMPACT ASSISTANCE PROGRAM (CIAP)

In fiscal year 2001, the U.S. congress authorized the Coastal Impact Assistance Program (CIAP) to assist states and local communities in mitigating the impacts of Outer Continental Shelf oil and gas development and production. Alabama received a onetime grant of approximately \$21,000,000, of which MBNEP received \$390,000 to fund an analysis of fish data, air deposition sample analysis, a study of Living Resources in the Delta, and Mobile Bay water monitoring.

In 2005, congress re-authorized funding for CIAP, which was established under section 384 of the Energy Policy Act (EPACT) of 2005 and authorizes the Secretary of the Interior to distribute \$250 million annually to six Outer Continental Shelf (OCS) oil and gas producing states in fiscal years 2007 - 2010. The EPACT of 2005 requires that all CIAP funds be used to directly conserve, restore, enhance or protect renewable natural resources. The Minerals Management Service (MMS) will act as the administration entity for this funding.

In Alabama, the CIAP eligible recipients are the State of Alabama (through the ADCNR), the Baldwin County Commission and the Mobile County Commission. In total, the State received \$51,103,214.08 for fiscal years 2007 and 2008. Of this funding amount, \$33,217,089.16 was available to the State of Alabama, \$7,894,094.64 will be available to the Baldwin County Commission and \$9,902,030.28 will be available to the Mobile County Commission. This funding will be utilized to implement projects outlined in the CIAP Plan.

In April, 2009 the State's plan was approved by MMS for the first round of CIAP funding (as described above) and activity began during the summer of 2009. County governments and the Alabama Department of Conservation and Natural Resources-Coastal Section are completing projects under this program at present and no additional funding is until 2017.

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 partners with MASGC to co-fund a Coastal Resource specialist position.

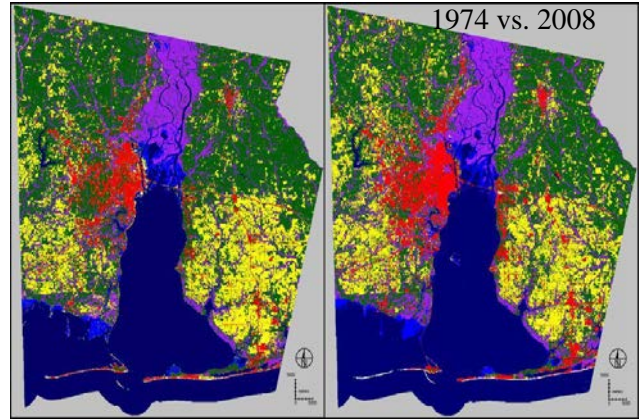
NOAA RESTORATION GRANTS/ GULF OF MEXICO FOUNDATION (GOMF)



The NOAA Community-based Restoration Program administered by the Gulf of Mexico Foundation funds citizen-driven habitat restoration projects which benefit living marine resources and foster local stewardship throughout the Gulf of Mexico region.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

The NASA Stennis Space Center Applied Science Coastal Program has used and is using local interest and coastal community science needs to guide development of a strategic plan. The overarching purpose of the Applied Sciences Program is to discover and demonstrate innovative applications of NASA Earth science research and technology and to maximize the benefits to society of the nation's investments in the NASA Earth science research program. Mobile Bay was identified as a priority area and a NASA team led by Dr. Jean Ellis partnered with MBNEP to address a priority local need by mapping and assessing Land Use-Land Cover changes in Baldwin and Mobile Counties from 1974-2008, a period of rapid development and growth using Landsat and other imagery data. The project was completed in September 2008 and products included: change detection maps in static and in digital format for several specific time intervals, Land Use-Land Cover change geospatial statistics; and a final project report.



Under a separate NASA grant (\$400,000) MBNEP was a co-investigator on a second A-28 grant, (\$398,401) to continue this project by verifying analysis results with other datasets to develop a cohesive understanding the permanency of habitat change over the time period with a focus on the coastal hydrologic units. This project is helping us assess coastal change due to development and its impact on water quality, habitat and living resource populations. These maps have been very useful in watershed planning. MBNEP is currently in discussion with NASA to update this product and explore other uses of its satellite imagery.

NORTHERN GULF INSTITUTE



The Northern Gulf Institute (NGI), a NOAA Cooperative Institute, develops, operates, and maintains an increasingly integrated research and transition program focused on filling priority gaps and reducing limitations in current Northern Gulf of Mexico awareness, understanding and decision support. Partnering with five academic institutions and NOAA, the institute is a collaboration led by Mississippi State University (MSU) that includes the University of Southern Mississippi (USM), Louisiana State University (LSU), Florida State University (FSU) and the Dauphin Island Sea Lab (DISL). The NGI was established in October of 2006. The five focus areas of the NGI are: Ecosystem-based Management, Geospatial Data/Information and Visualization in Environmental Science, Climate Change and Climate Variability Effects on Regional Ecosystems, Coastal Hazards and Resiliency.

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. USACE completed two Preliminary Restoration Plans (PRP) valued at approximately \$10,000 each: one for the restoration of an area on Isle of Herbes and a second for a habitat restoration along Dauphin Island Causeway. As part of the ongoing planning for Isle of Herbes, MBNEP completed a living resources characterization of the island to assist with the corps combined planning and development phase. USACE requested Section 204 funding to continue to implement the Isle of Herbes restoration but the project was stopped due to the presence of submerged aquatic vegetation (SAV). A combined planning and design report, valued at over \$80,000 was

completed for the DI Causeway Restoration. However, due to a lack of suitable material and cost prohibitive staging issues, the USACE abandoned the DI Causeway restoration. Although USACE chose no further action on the project, the work done by the USACE was used as part of a grant submitted by MASGC through a NOAA stimulus grant to fund a very similar project. Another project Helen Wood Park (along the Dauphin Island Parkway) to break wave energy, thus reducing erosion has been cancelled by USACE due to the presence of SAV in the area that was identified for marsh establishment. USACE participation in CCMP activities represents a crucial resource for moving projects forward.

STATE RESOURCES

ALABAMA 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 years 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
Total State Funding	\$228,264	\$274,000

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:

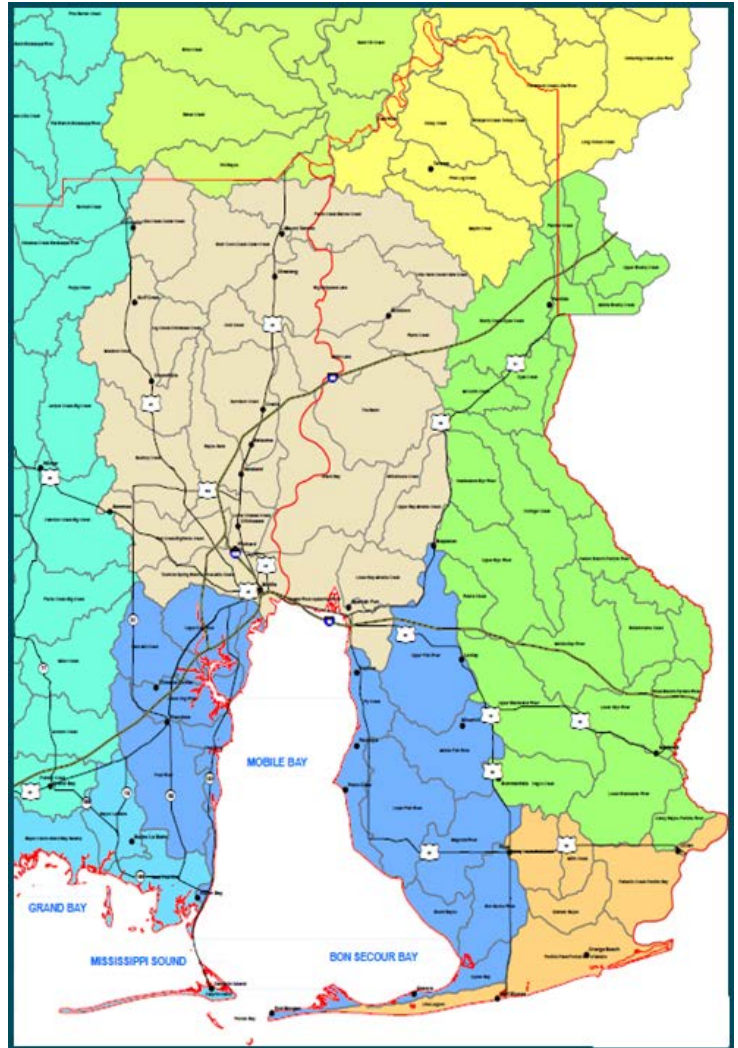
<i>Local</i>	<i>2016-2017</i>
Baldwin County	15,000
Mobile County	20,000
City of Mobile	20,000
City of Daphne	30,000
City of Spanish Fort	5,000
City of Fairhope	5,000
City of Foley	10,000
City of Gulf Shores	5,000

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.

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.



ART TWO: ONGOING PROJECTS

Mobile Bay National Estuary Program Annual Report 2014-2015

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 past year has been transformative for the MBNEP and its Management Conference committees. Implementing three National Fish and Wildlife Foundation Gulf Environmental Benefit Fund (GEBF) grants, the MBNEP joined partners on both sides of the bay to continue laying the foundation for coastal restoration through watershed planning and implementation. These grants were added to ten current active grants including awards from the EPA, Alabama Department of Conservation and Natural Resources, Alabama Clean Water Partnership, the U.S. Fish and Wildlife Service, and the Alabama Department of Environmental Management. In addition, non-federal match funding was received from the State of Alabama, Alabama Department of Conservation and Natural Resources and several Mobile and Baldwin County municipalities. These diverse sources of funding grew the MBNEP budget to over \$11.5 million dollars in the past year to support projects affecting water quality and living resources of coastal Alabama, including significant activity in the D'Olive and Fowl River watersheds.

THE CCMP

In its third year, MBNEP continues 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:

STATUS AND TRENDS: ENVIRONMENTAL MONITORING FOR THE COAST

The Science Advisory Committee (SAC) focused their activities on assessing improved delivery of ecosystem services related to implementation measures recommended through coastal watershed management planning and on maintaining existing levels of coastal monitoring by evaluating funding and organizational capacity to manage historical, ongoing, and future coastal and estuarine data.

Real Time Monitoring - The MBNEP provided funding to DISL to support operation and maintenance of real-time monitoring sites at Meaher Park, Dauphin Island, Weeks Bay, and Middle Bay lighthouse. These monitoring stations provide real-time data that can be viewed at www.mymobilebay.com, a website also containing links to the Mobile River, Fort Morgan, and the Farewell Buoy as part of the Physical Oceanographic Real-Time System of the National Ocean Service (with data more pertinent to shipping interests) as well as data from Weeks Bay and Grand Bay through the NOAA Weather Service Hydrometeorological Automated Data System. Staff support for this program has been integrated into the SAC Coordinator responsibilities.

Measuring Changes in Biological Condition - With a goal of measuring changes in ecosystem function resulting from watershed management and restoration activities, the SAC continued a multi-year focus on the development of a conceptual framework for measuring biological conditions. This framework includes tracking conditions of wetlands and intertidal marshes and flats using the relative proportion of acreage having "good," "fair," and "poor" biological condition within an assessment area, accounting for wetlands lost or gained. Condition will be assessed using landscape development indices (LDIs), wetland rapid assessment procedures (WRAP), and hydrogeomorphic models (HGMs). For coastal streams, condition will be assessed using macroinvertebrate indices of biological integrity (MIBI). While MIBIs have as yet not

been calibrated for Alabama streams, Mississippi DEQ and Florida DEP have both developed indices which may be applicable in Alabama.

This framework is being tested in the D'Olive watershed where a significant amount of restoration is occurring in addition to passage and enforcement of enhanced sub-division regulations. Condition of freshwater wetlands and distribution of submerged aquatic vegetation (SAV) in D'Olive Bay are providing assays of downstream condition related to restoration of these upstream streams and wetlands.

Data Development - In late 2014, MBNEP received a grant from the second round of National Fish and Wildlife Foundation (NFWF) Gulf Environmental Benefit Fund (GEBF) to produce high-resolution maps of habitats in Alabama's two coastal counties, map the distribution of submerged aquatic vegetation in Alabama's coastal and estuarine waters, develop watershed management plans for priority intertidal watersheds, and develop a habitat restoration plan coupling data from maps with recommendations from WMPs to prioritize restoration and conservation activities. In 2015, Barry A. Vittor and Associates followed up on 2002 and 2008-2009 efforts and gathered aerial imagery to map the distribution of SAV in the Mobile-Tensaw Delta, Mobile Bay, Mississippi Sound, and Perdido Key area of southern Baldwin County. Radiance Technologies was contracted to update the inventory of priority wetland and upland coastal habitats through high-resolution mapping. These priority habitats identified by the Coastal Habitats Coordinating Team consist of intertidal marshes and flats, freshwater wetlands, riparian buffers, pine savanna, longleaf pine, maritime forest, beaches and dunes. High resolution habitat mapping will provide important baseline data for a GIS support tool to enhance restoration and conservation planning through protection of critical ecosystem services, particularly water quality enhancement and fisheries production.

Habitat Restoration Plan/Watershed Comparison Tool - MBNEP is funding The Nature Conservancy to develop an online decision support mapping tool that will allow the user to utilize a wealth of information about water resources and watersheds, as well as robust analyses and modeling to allow the MBNEP and the PIC to prioritize and monitor the implementation of the management recommendations and to determine where restoration efforts should be employed. This tool will be used to prepare a habitat restoration plan coupling data from habitat and SAV maps, as well as digital information and recommendations from completed watershed plans, to determine where restoration and conservation activities will have the greatest impact on restoration. Each state or partner (including Alabama/MBNEP) determines what products would be most useful to guide TNC developers in generation of applications.

ECOSYSTEM RESTORATION AND PROTECTION AT A WATERSHED SCALE

D'Olive Creek Watershed Restoration – At the end of 2013, MBNEP was awarded a \$6.85M NFWF GEBF grant to continue restoration of substantially-degraded tributaries in the D'Olive and Tiawasee creek and Joe's Branch sub-watersheds to "stop the bleeding" and mitigate 303(d)-listed impairments (siltation) resulting from stormwater runoff. Engineering and design activities were put to the test after the "500-year" storm event in April of 2014 devastated local streambeds. MBNEP requested an amendment to NFWF, and in August \$11.4M was approved to complete proposed restoration projects.

Restoration project implementation continues. Although the initial restoration project of a tributary to Joe's Branch performed very well, targeted restoration areas experienced significantly more erosion. As a result, additional engineering was required for Joe's Branch, pushing back restoration to April 2015. JB Phase II was substantially completed in August, 2015, and GSA monitoring indicated a 90-99% downstream reduction in sediment loads. Design is complete and construction contracts awarded for restoration of three additional stream reaches and two stormwater management facilities to complete Joe's Branch restoration activities. Engineering and design for restoration of Tiawasee Creek, managed by the City of Daphne and funded jointly through CIAP and the MBNEP NFWF GEBF grant were completed and a construction

contract awarded prior to the end of 2015. With design completed for D'Olive Creek tributary D4-D6, downstream of I-10, construction will be bid to begin when ALDOT work at the I-10 culverts is completed later in 2016. Designs for restoration of tributary DA3 has been initiated with construction expected in late 2016.

Mon Louis Island/Fowl River Watershed - At the end of 2013, MBNEP was awarded a \$2.05M grant from the GEBF to undertake a sediment loading analysis to identify areas of erosion concern, prepare a comprehensive management plan for Fowl River watershed and stabilize the tip of Mon Louis Island at the mouth of the river, creating up to 7 acres of marsh. The sediment analysis was completed, and a draft watershed management plan was delivered for comment.

The proposed tip restoration strategy included dredging the Fowl River channel and beneficially using that material to support the project. As part of the initial design, an Alternatives Evaluation was prepared, comparing different designs, materials, and footprints for the restoration, with creation of a rock sill as the preferred alternative. Concurrently, an investigation of sediment quality was conducted at the mouth of the river and within the channel. Based on findings of poor quality, project development depended on finding a suitable and financially feasible sediment source. With \$800,000 available from a State Deepwater Horizon Impact Grant facilitated by Senator Bill Hightower, a plan was developed to borrow suitable material from the nearby Fowl River Open Water Disposal Area to create over four acres of marsh to restore the tip to its 1995 footprint, followed by DWHI Grant-funded dredging of the shallow Fowl River navigation channel to replace material borrowed from the FROWDA. An amendment to the NFWF GEBF grant to \$2.85M was sought and approved by NFWF, and permitting requirement submission was completed in late 2015. Permit receipt is pending.

Three Mile Creek Watershed - Implementation of the Three Mile Creek Watershed Management Plan is underway. In August, 2014, MBNEP assisted the City of Mobile in preparation of an Outdoor Recreation Legacy Program Grant proposal for submission to the National Parks Service/U. S. Department of the Interior for the construction of the first leg of a bicycle trail/greenway extending from Martin Luther King Jr. Avenue to Tricentennial Park with LID lighting, impervious surface, and a circuit/fitness course. In August, 2015, the City won a \$486K award to implement this project, slated for construction in 2016.

Two MBNEP projects related to Three Mile Creek were approved for awards from the RESTORE Bucket 2 Funded Priority List in December, 2015: Stream restoration/stabilization in TMC tributary Twelve Mile Creek upstream of Langan Park to reduce delivery of sediment there and a TMC Invasive Species Control Plan for development and implementation.

Coastal Watershed Management Planning - Watershed management plans funded in the first and second rounds of NFWF GEBFs are progressing. The Fowl River WMP, developed by Goodwyn Mills Cawood and managed by the Mobile County Soil and Water Conservation District, was released in draft for comment in December 2015. GMC was contracted by the City of Mobile to develop their comprehensive plan, so as a matter of economy and efficiency they were also contracted to develop the WMP for the Dog River Complex (that includes Upper and Lower Dog River, Halls Mill Creek, and Garrow's Bend), which is in progress. Dewberry is progressing through development of the WMP for Bayou Le Batre. Their scope may be amended to include Dauphin Island, West Fowl River, and Delchamps Bayou, due to geographical similarity and proximity, common drainage, and since the team developing the AL Barrier Island Restoration Study requested the MBNEP to partner to supplement their data with stakeholder engagement necessary to both efforts. The Bon Secour River Complex planning effort (BSR, Skunk Bayou, and Oyster Bay) is being managed by the City of Foley and developed by Volkert. The Fish River Complex (Upper, Middle, and Lower Fish River, Perrone Branch, and Magnolia River Watersheds) is being managed by the Baldwin County Soil and Water Conservation District and developed by Thompson Engineering. The Wolf Bay

Complex (Graham Bayou, Sandy and Mifflin Creek, and Perdido Pass/Frontal Gulf of Mexico Watersheds) and Tensaw-Apalachee Complex (Tensaw-Apalachee, Grand Bay (AL), and The Basin Watersheds) will be the last of the NFWF-funded watersheds undertaken. In December, 2015, funding was approved from the RESTORE Bucket 2 Funded Priority List to develop WMPs for the remaining 19 tidally-influenced watersheds in coastal Alabama.

EDUCATION, OUTREACH, AND CAPACITY BUILDING

Alabama Current Connection is a joint semi-annual newsletter published by ADCNR, State Lands Division, Coastal Section and the MBNEP to highlight current projects, Management Conference activities and initiatives, and other issues of interest/concern to local residents. Two newsletters were published for distribution as hard copies as well as in electronic (PDF) format.

Clean Water Future Campaign - Create a Clean Water Future is a public service messaging and marketing campaign to help Alabamians learn more about stormwater runoff and its impacts; increase demand for stormwater management programs; and provide tools that empower Alabama residents to reduce polluted runoff in our waterways. Membership in *Create a Clean Water Future* provides municipalities, businesses, or other organizations with a unified mechanism for raising the issue of stormwater management throughout coastal Alabama. MBNEP is charging the Business Resource Committee to connect with lead implementers of the CCWF campaign. The BRC will recruit private sector entities to “jump start” the campaign as prescribed in a marketing plan developed in 2015.

Toulmins Spring Branch Community Adaptation – In 2015 with funding from the New York Community Trust, MBNEP joined forces with the MLK Avenue Redevelopment Corporation to establish a Community Resiliency Leadership Academy to teach potentially-affected residents of the MLK area and along TSB how to participate in decisions about proposed activities that will affect their environment and/or health and how a community’s contribution can influence local government management decisions. Leadership Academy members met weekly with training in leadership and team building; identification of resources, needs, and adoption of vision; group dynamics; and community organizing and education in environmental topics like climate change, watershed dynamics, and field work to gain an appreciation for local habitat assets and problems. Upon course completion, Academy members were recognized by the Mayor and City of Mobile Council. The program will be ongoing.

Concurrently, in coordination with a proposed project by The Nature Conservancy to develop best management practices in the headwaters of TSB, MBNEP conducted a TSB Community Resiliency Project to involve residents in planning for how their vulnerable community will adapt to climate change impacts. Project goals were to engage community members in understanding and adapting to the risks posed by an increased incidence of coastal storms and rising sea levels and to build local capacity for improving community resiliency while protecting natural resources and enhancing ecosystem services. Volunteers for the University of South Alabama’s Center for Academic Service Learning and Civic Engagement were trained to assist in neighborhood canvassing, to encourage participation, and three community meetings were conducted, with participants completing questionnaires and viewing presentations by MBNEP staff on watershed education and potential project implementation. Following the three community meetings, MBNEP held an Ideas Festival where residents participated in a mapping workshop to identify critical structure assets and locations of known flooding and stormwater related problems. MBNEP solicited feedback from participants through handheld voting devices regarding the resiliency of the community to flooding and potential impacts of sea level rise.

Video Productions - In 2015, MBNEP produced two well-received videos. *Understanding Your Watershed* was created as a primer for elected officials and others to learn about watersheds, stormwater, and nonpoint

source pollution and is widely used in outreach efforts. *The Path Towards Coastal Restoration* was prepared for the MBNEP's annual Management Conference breakfast and the video describes projects and initiatives that have represented MBNEP efforts over the preceding calendar year.

Alabama Water Watch - AWW is a citizen, volunteer water quality monitoring program covering all of the major river basins in Alabama. MBNEP partnered with AWW to expand volunteer monitoring within Alabama's two coastal counties. During the past program year we have focused on increasing the volunteer monitoring capacity of local grassroots watershed groups. A workshop was held to highlight coastal water monitoring efforts, and two follow-up meetings with grassroots groups indicated a need for more training opportunities and assistance in maintaining test kits. AWW also worked to develop protocol for salinity testing via refractometer and bacterial *Enterococcus* assessment.

Coastal Alabama Clean Water Partnership - As host to the Coastal Basin CWP Facilitator, MBNEP supports activities to reduce the amount of non-point source pollution entering our waterways. The CACWP is part of the Alabama Rain Barrel Project, conducting workshops for citizens to "make and take" a 55-gallon rain barrel. Included in the workshop is an educational session teaching citizens how to protect water quality and conserve water resources. During the past program year, four rain barrel workshops were held in Mobile and Baldwin counties and 55 rain barrels were constructed. The CACWP also supports multiple outreach events that demonstrate best management practices for protecting coastal water quality and habitat. During the past program year these events included:

- Mobile County Forestry Field Day- over 75 landowners participated in BMP demonstrations including protecting wetlands, managing longleaf pine, farm pond management, and zero tillage farming.
- Mobile and Baldwin County Water Festivals- Over 1,000 4th grade students participated in a hands-on learning experience on topics including watershed protection, water quality, and the water cycle.

Coastal Marine Planning – MBNEP, in collaboration with the Working Waterfronts Coalition and a Steering Committee comprising area agency resource managers, is working with the Geological Survey of Alabama to create a Coastal Marine Planning (CMP) GIS-based Decision Support Tool. This involves developing a new support tool or adapting an existing one to the needs of CMP in coastal Alabama. GSA updated the Alabama Comprehensive GIS Inventory of Coastal resources by

- Interacting with partners to prioritize coastal marine spatial planning (CMSP) collected to date and identify data gaps, including expanding stakeholder input to assist the Steering Committee in addressing goals and objectives established in previous phases of the effort.
- Finalizing thematic data tabulated to date which was reflected in Phase III, including addressing data redundancy and metadata compliance.
- Completing a working inventory, updating the 2006 dataset, and drafted into an ArcGIS project (.MXD format) and into a published map file (.pmf format suitable for ArcReader) for DVD media

Developing of beta version of a categorical ArcReader interface for the Recreation categorical theme using Adobe Flex viewer built on the ArcGIS Server platform (located at <http://www.ogb.stae.al.us/apps/Recreation/>)

IMPLEMENTATION PROGRESS

Attached:

Existing Grant: Budget vs. Actual

Contracts with Local Entities (2015-2016)

**Mobile Bay National Estuary Program
Budget vs Actual as of 3-31-16**

Project/Activities		Total Budget	Total Expenses	Cash Balance	Total Encumbrances	Available Balance	Status
Estuary Status and Trends		804,919.00	205,244.91	235,769.09	715,661.98	89,257.02	
Coastal Monitoring							
SAC Technical Assistance	EPA	10,000.00	10,000.00		- 10,000.00	-	
SAC Coordination	EPA	76,000.00	51,578.91	24,421.09	76,000.00	-	Monitoring Framework in D'Olive Watershed underway
Real Time Monitoring	EPA	-	-	-	-	-	
Sediment Studies		-	-	-	-	-	
Fowl River	EPA	1,100.00	1,100.00		- 1,100.00	-	Complete
Bayou La Batre/West Fowl	NFWF	28,589.00	-	-	- 28,588.00	1.00	Sediment surveys are underway
Fish River	NFWF	59,230.00	-	-	- 59,230.00	-	Sediment surveys are underway
Data Development						-	
Mobile County Soil Survey	MC	50,000.00	-	50,000.00	-	50,000.00	NRCS under contract and Soil Survey underway
Habitat Mapping	NFWF	350,000.00	-	-	- 348,786.98	1,213.02	Radiance technologies under contract and mapping underway
SAV Mapping	NFWF	150,000.00	111,957.00	111,957.00	111,957.00	38,043.00	SAV mapping complete; analysis underway
SAV Mapping (NFWF Task 1.2)	ADCNR	80,000.00	30,609.00	49,391.00	80,000.00	-	

Mobile Bay National Estuary Program
Budget vs Actual as of 3-31-16

<i>Project/Activities</i>		Total Budget	Total Expenses	Cash Balance	Total Encumbrances	Available Balance	Status
Ecosystem Restoration and Protection		16,430,062.80	3,029,742.69	13,148,136.06	9,097,757.19	7,080,121.56	
Habitat Restoration Plan/Tool	NFWF	200,000.00	428.17	199,571.83	189,372.00	10,628.00	TNC under contract; data development underway
Watershed Restoration						-	
Watershed Plan Ex. Project Delivery	NFWF	100,000.00	21,265.83	78,734.17	60,000.00	40,000.00	Mobile and Baldwin County Soil and Water Conservation Districts and City of Foley under contract for project management
Watershed Planning (Funds Available)	NFWF	252,184.05					Reserve for future plans
<i>D'Olive, Tiawasee, Joes Branch</i>							
D'Olive Watershed	EPA	1,543.00		- 1,543.00		- 1,543.00	complete; Tiawasee Creek substantially complete; D'Olive Creek underway; other stream segments in engineering and design.
D'Olive Creek Restoration	NFWF	6,945,003.00	479,167.85	6,465,835.15	3,132,861.75	3,812,141.25	
Joies Branch Restoration Phase 2	NFWF	2,859,998.00	1,370,596.12	1,489,401.88	2,811,002.00	48,996.00	
Tiawasee Creek Restoration	NFWF	550,000.00	153,542.04	396,457.96	550,000.00	-	
<i>Fowl River</i>							
Fowl River Sediment Study	NFWF	50,000.00	50,000.00		- 50,000.00	-	
Fowl River Watershed Plan	NFWF	250,000.00	240,000.00	10,000.00	250,000.00	-	
MLI Tip Restoration	NFWF	2,182,400.00	74,705.87	2,107,694.13	210,900.00	1,971,500.00	Fowl River Watershed Management Plan complete; MLI Tip Restoration under construction
MLI Tip Restoration Contingency	NFWF	394,300.00		- 394,300.00		- 394,300.00	
MLI Tip Permitting	NFWF	91,243.50	91,243.00	0.50	91,243.00	0.50	
Fowl River LT Monitoring	NFWF	125,000.00		- 125,000.00	125,000.00	-	
MLI Tip Restoration	AEMA	789,200.00		- 789,200.00		- 789,200.00	Monitoring plan developed
<i>Bayou La Batre, West Fowl, DI</i>							
Bayou La Batre Watershed Plan	NFWF	225,000.00	136,743.28	88,256.72	225,000.00	-	River and Dauphin Island as a Mississippi Sound Complex Plan
West Fowl River Watershed Plan	NFWF	200,000.00		- 200,000.00	200,000.00	-	
<i>Bon Secour Complex</i>							
Bon Secour, Skunk, Oyster Bay Watershed Plan	NFWF	335,000.00	120,590.15	214,409.85	335,000.00	-	Planning underway
<i>Weeks Bay (Fish, Magnolia)</i>							
Weeks Bay (Fish, Magnolia Rivers)	NFWF	424,996.95	29,156.29	395,840.66	424,996.95	-	Planning underway
<i>Dog River, Garrows Bend</i>							
Dog River Complex Watershed Plan	NFWF	275,000.00	150,750.00	124,250.00	275,000.00	-	Planning underway
<i>Wolf Bay</i>							
Wolf Bay Watershed Plan	NFWF		-	-	-	-	To be initiated summer 2016
<i>Tensaw Apalachee</i>							
Tensaw Apalachee Watershed Plan	NFWF		-	-	-	-	Project scoping underway
<i>Three Mile Creek</i>							
Three Mile Creek	EPA	9,851.00	4,918.49	4,932.51	4,918.49	4,932.51	
Three Mile Creek Coordination	WKA	17,391.30	421.00	16,970.30	10,000.00	7,391.30	
Toulmins Spring County Drainage	EPA	25,000.00	10,759.75	14,240.25	25,000.00	-	
Toulmins Spring Model & Drainage	EPA	45,852.00	35,058.17	10,793.83	46,363.00	(511.00)	
Comm. Resiliency Academy	EPA	20,000.00	16,146.32	3,853.68	20,000.00	-	Drainage Report Complete; Community Resiliency Academy Complete;
Three Mile Creek Community Resiliency	NYCT	36,100.00	33,490.61	2,609.39	36,100.00	-	Community Engagement in Toulminville complete- Community Clean-up in planning
<i>Eight Mile Creek</i>							
Gum Tree County Drainage	EPA	25,000.00	10,759.75	14,240.25	25,000.00	-	Drainage Report complete

**Mobile Bay National Estuary Program
Budget vs Actual as of 3-31-16**

Project/Activities		Total Budget	Total Expenses	Cash Balance	Total Encumbrances	Available Balance	Status
Technical Assistance and Capacity Building		291,746.32	103,986.56	187,759.76	157,885.10	133,861.22	
Coastal Marine Planning (4) Inventory of Resources	ADCNR	80,870.00	69,078.17	11,791.83	-	80,870.00	
Coastal Marine Planning (5) Communication Tools	ADCNR	80,870.00	-	80,870.00	80,870.00	-	Online Tool developed and being tested by Working Waterfront Coalition and CMP Steering Committee
Volunteer Monitoring	EPA					-	
Alabama Water Watch	EPA	15,000.00	2,142.38	12,857.62	2,142.38	12,857.62	One training complete; 20 trained
Grassroots Monitoring Support	EPA	20,000.00	991.40	19,008.60	991.40	19,008.60	Monitoring supplies for Dog River Clear Water Revival
K-12 Volunteer Monitoring Program	EPA	20,000.00	-	20,000.00	-	20,000.00	Being Reconsidered
Clean Water Partnership	EPA	63,006.32	22,899.61	40,106.71	63,006.32	-	Underway
Estuary Corps	EPA	9,000.00	7,875.00	1,125.00	7,875.00	1,125.00	Five videos produced to inspire children to enter environmental fields- complete
Green Ports Support	EPA	-	-	-	-	-	
Oyster Gardening	EPA	3,000.00	1,000.00	2,000.00	3,000.00	-	Sponsorship of educational oyster statue

Mobile Bay National Estuary Program
Budget vs Actual as of 3-31-16

Project/Activities		Total Budget	Total Expenses	Cash Balance	Total Encumbrances	Available Balance	Status
Education and Public Involvement		278,725.41	158,525.20	120,200.21	223,624.14	55,101.27	
Management Conference	EPA	3,000.00	1,508.20	1,491.80	1,508.20	1,491.80	Support of Government Official meetings/training
Current Connections Newsletter	EPA	16,000.00	14,313.48	1,686.52	14,313.48	1,686.52	
Current Connections Newsletter	ADCNR	6,956.50	-	6,956.50	6,956.50	-	Two newsletters produced
Interpretive Signage	EPA	-	-	-	-	-	
Video Production	EPA	49,000.00	21,237.56	27,762.44	34,380.00	14,620.00	MS4 video; Path Toward Coastal Restoration; Watersheds 101; Dauphin Island Climate Change and LID under development
Special Events	EPA	30,435.00	23,898.04	6,536.96	23,898.04	6,536.96	Coastal Clean Up; Birdfest; Kids Fishing Tournament; other
Promotional Materials	EPA	13,210.00	7,746.20	5,463.80	7,746.20	5,463.80	Assorted materials for outreach purposes distributed
Create a Clean Water Future Campaign	EPA	70,123.91	44,821.72	25,302.19	44,821.72	25,302.19	Campaign Development and Materials
DISL Education Program Support	EPA	90,000.00	45,000.00	45,000.00	90,000.00	-	Support for DISL Discovery Hall Teacher Training Water Quality monitoring and Watershed curriculum
Program Planning and Administration		3,329,134.51	2,043,055.08	1,286,079.43	3,037,614.63	291,519.88	
EPA Program Management and General Expenses	EPA	1,507,918.37	1,146,463.47	361,454.90	1,507,918.37	-	
D'Olive General Expenses	NFWF	793,212.88	321,692.63	471,520.25	603,151.96	190,060.92	
Fowl River General Expenses	NFWF	84,458.74	81,058.03	3,400.71		84,458.74	
Coastal Restoration General Expenses	NFWF	77,000.00	298.36	76,701.64	60,000.00	17,000.00	
DISL Indirect Charge	EPAID	315,606.00	190,312.40	125,293.60	315,605.78	0.22	
DISL Indirect Charge- External Grants	EXTID C	550,938.52	303,230.19	247,708.33	550,938.52	-	
TOTAL		21,134,588.04	5,540,554.44	14,977,944.55	13,232,543.04	7,649,860.95	

EPA TOTAL 2,439,645.60

EXTERNAL TOTAL 18,694,942.44

GRAND TOTAL 21,134,588.04

Local contracts executed October 1, 2014-Sept 30, 2015

Title	Organization	ProjDes	Amount	Start Date	End Date	Award Funding Source
Low Impact Development Video	Blink Colony	Development of a video and support materials targeting municipal staff, city planners, engineers and others dealing with outside General Contractors in order to provide tools, facts and language to communicate why the contractor should (or may be required to) employ LID standards by conveying the importance and efficiencies of utilizing Low Impact Development BMPs.	\$10,000	September 15, 2015	March 30, 2016	US Environmental Protection Agency
Wetlands Rapid Assessment Procedure in D'Olive Watershed	Wetland Resources Environmental Consulting	Wetland Resources Environmental consulting will provide Wetland Rapid Assessment Procedure (WRAP) data and score for strategically selected sites throughout the D'Olive watershed to assess changes in wetland habitat due to MBNEP restoration efforts. The WRAP will include analysis of: wildlife utilization; wetland overstory/shrub canopy; wetland vegetative groundcover; adjacent upland support/wetland buffer; field indicators of wetland hydrology; water quality input and treatment systems. Each assessment will have a pre-field assessment review that includes analyzing aerial photography, USGS topographic mapping, and USDA-NRCS soil mapping. Additionally, raw data will be collected that will identify presence of species within the site area so that after a Floristic Quality Index (FQI) has been calibrated for the region, the FQI score for these sites can be determined.	\$24,800.00	September 10, 2015	September 30, 2018	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund
Increase Public Awareness and Exposure to the activities of the Mobile Bay NEP	Jeff Dute	,	10,000.00	September 14, 2015	December 31, 2015	US Environmental Protection Agency
Project Management: Development of a Comprehensive Watershed Management Plan for the Fish River Watershed	Baldwin County Soil and Water Conservation District	to provide project management assistance in the development of a Comprehensive Watershed Management Plan (WMP) for the Fish River Watershed	20,000.00	September 2, 2015	October 31, 2016	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund

Local contracts executed October 1, 2014-Sept 30, 2015

Title	Organization	ProjDes	Amount	Start Date	End Date	Award Funding Source
Improvements to Spanish Fort Detention Ponds	Southern Excavating, LLC	Construct improvements to existing municipal detention ponds to slow velocity and reduce energy at the inlet to reduce resuspension of sediments; increase the flow path from inlet to outlet to enhance removal of total suspended solids; and add native vegetation to secure soils/sediments, improve water quality, and improve aesthetics.	17,345.00	August 18, 2015	August 25, 2015	CWA Section 319 Grant
Continued Monitoring for D'Olive Bay		to continue collection of data in D'Olive bay that will help strengthen the dataset we currently have and will help in determining trends and changes in water quality as resoration occurs further upstream				National Fish and Wildlife Foundation Gulf Environmental Benefit Fund
Bon Secour River & Oyster Bay Watershed Management Plan	Dauphin Island Sea Lab	to develop a comprehensive watershed management plan to provide a roadmap for restoring the watersheds and improving water and habitat quality in areas where resources could have been damaged by the Deepwater Horizon Oil Spill.	35,394.00	August 1, 2015	December 31, 2018	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund
Project Management: Development of a Comprehensive Watershed Management Plan for the Bon Secour and Oyster Bay Watershed	Volkert, Inc. City of Foley	to provide project management assistance in the development of a Comprehensive Watershed Management Plan (WMP) for the Bon Secour and Oyster Bay Watershed	250,000.00 20,000.00	August 15, 2015 May 1st, 2015	August 14, 2016 August 31, 2016	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund

Local contracts executed October 1, 2014-Sept 30, 2015

Title	Organization	ProjDes	Amount	Start Date	End Date	Award Funding Source
Submerged Aquatic Vegetation Mapping and Evaluation	Barry A. Vittor & Associates, Inc.	The 2013-2018 CCMP for the Mobile Bay Estuary includes two restoration goals, to improve: 1) trends in water quality in watersheds that discharge into priority fishery nursery areas and 2) ecosystem function and resilience throughout the estuary through protection, restoration, and conservation of habitats. SAV is a priority habitat because it has high fisheries value and is an indicator of water quality. SAV can be used as an estuarine condition indicator, particularly at locations in and near open bay waters where it occurred historically but has declined in coverage or no longer exists. Declines in SAV extent are believed to be principally the result of increasing inputs of sediments and nutrients into estuarine waters. Tracking trends in SAV occurrence will assist in identifying locations of water quality improvement or deterioration and help assess potential locations for SAV restoration.	191,957.00	July 15, 2015	July 15, 2016	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund
Drainage Improvements Planning: Gum Tree Branch/Toulmins Spring Branch- City of Prichard	Mobile County	to undertake preliminary planning and design of drainage improvements within the following areas of the City of Prichard: Gum Tree Branch sub-watershed of Eight Mile Creek watershed and Toulmins Spring Branch sub-watershed of Three Mile Creek watershed using environmentally appropriate techniques through the use of low impact development technologies.	50,000.00	July 15, 2015	December 31, 2015	US Environmental Protection Agency National Fish and Wildlife Foundation Gulf Environmental Benefit Fund
Restoration of D'Olive Creek-Section DA-3	Volkert, Inc.	Locate and topo existing Centerline of D'Olive Creek with in the DA-3 boundary	11,553.00	July 1, 2015	December 31, 2015	US Environmental Protection Agency National Fish and Wildlife Foundation Gulf Environmental Benefit Fund

Local contracts executed October 1, 2014-Sept 30, 2015

Title	Organization	ProjDes	Amount	Start Date	End Date	Award Funding Source
Preparing for Climate Change in Disadvantaged Communities: Toulmin Springs Branch	Kimberly Pettway	To foresee or predict as many dangers and problems as possible in this disadvantaged area related to changes in climates; and to plan, organize and control activities so the community remains as resilient as possible in spite of all the risks. Objectives include: 1. Conduct a windshield survey to assess community concerns and fears from at least 60 residents 2. Host a community-wide meeting to further develop community attitudes about changing climates and related community impacts. 3. Conduct an Adaptation Planning workshop with appropriate stakeholders	5,750.00	June 19th, 2015	August 14, 2015	ANEP NYCT
Three Mile Creek Watershed Partnerships: Engaging Key Stakeholders	Mobile Area Chamber of Commerce Foundation, Inc.	to provide services related to the engagement of key stakeholders in adopting and assisting with the implementation of recommendations in the Three Mile Creek Watershed.	10,000.00	June 1, 2015	December 31, 2015	Waterkeeper Alliance
Advancing Coastal Marine Planning in Alabama	Auburn University	to develop an online-GIS decision support tool for coastal marine planning in Alabama including: Data review, stakeholder engagement, tool development, and tool assessment.	43,079.00	May 1, 2015	December 31, 2015	ADCNR
Update of the Alabama Comprehensive Inventory of Coastal GIS Resources-Phase IV	Geological Survey of Alabama	to complete the update of the AL Comprehensive Inventory of Coastal GIS Resources, including development of an interactive CD-ROM or DVD to convey the geospatial thematic layers of this project.	37,870.00	May 1, 2015	December 31, 2015	ADCNR
Bayou La Batre Watershed Management Plan	Dewberry Engineers, Inc.	to develop a comprehensive watershed management plan to provide a roadmap for restoring the watershed and improving water and habitat quality in areas where resources could have been damaged by the Deepwater Horizon Oil Spill.	225,000.00	April 15, 2015	April 29, 2016	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund
Dog River Watershed Management Plan	Goodwyn/Mills/Cawood	to develop a comprehensive watershed management plan to provide a roadmap for restoring the watersheds and improving water and habitat quality in areas where resources could have been damaged by the Deepwater Horizon Oil Spill.	275,000.00	April 1, 2015	March 30, 2016	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund

Local contracts executed October 1, 2014-Sept 30, 2015

Title	Organization	ProjDes	Amount	Start Date	End Date	Award Funding Source
2015 Estuary Corp Program Project Management: Development of a Comprehensive Watershed Management Plan for the Bayou La Batre Watershed	Alabama Coastal Foundation	to create a video showcasing professionals in fields such as biology, botany, ecology, eco-tourism, hydrological engineering, fisheries, forestry, geology, wetlands and wildlife to educate students about different career paths related to protecting the environment.	7,000.00	March 1, 2015	December 31, 2015	U. S. Environmental Protection Agency
	Mobile County Soil and Water Conservation District	to provide project management assistance in the development of a Comprehensive Watershed Management Plan (WMP) for the Bayou La Batre Watershed	20,000.00	February 15, 2015	January 31, 2016	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund
Website Design and Development Three Mile Creek: Community Capacity Building and Vulnerability Assessment- MLK Avenue and Surrounding Neighborhoods	BlueFish Design Studio	to design and develop a new website for the MBNEP that will improve usability of the site through intelligent content organization, navigation and cutting edge design presentation.	15,000.00	February 1, 2015	June 30th, 2015	USEPA
Stream Restoration Professional Services Related to D'Olive Watershed Restoration	MLK Avenue Redevelopment Corporation	to build community capacity for identifying and addressing vulnerabilities related to changing climate in an underserved area in proximity to Toulmin Spring Branch	20,000.00	February 1, 2015	January 30, 2016	USEPA
Storm Water Awareness Campaign Development: Business Sector	Jennings Environmental, LLC	to provide expertise in the areas of project development, design, construction and coordination relative to D'Olive Watershed stream restoration activities	85,000.00	October 1, 2015	September 30, 2016	NFWF
	Lewis Communications	to undertake a market analysis of the business community to guide future stormwater awareness campaigns.	29,000.00	January 1, 2015	December 31, 2015	US EPA
Professional Engineering Services for Hydrologic and Hydraulic Modeling Services related to Restoration in the D'Olive Creek Sub-Watershed	Trimble	to assist with the development of permanent solutions for stabilizing D'Olive Creek in the vicinity of I-10 and other areas impacting it.	60,200.00	November 1, 2014	October 31, 2015	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund
Professional Engineering Services for Engineering Design and Construction Oversight of the D'Olive Creek Restoration Segment D4-D6 of the D'Olive Watershed, Baldwin County, Alabama	Goodwyn/Mills/Cawood	to provide professional engineering, environmental consulting, and related services as needed for implementation of a stream restoration project identified as the D4-D6 segment of D'Olive Creek	655,000.00	October 1, 2014	September 30, 2015	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund

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Local contracts executed October 1, 2014-Sept 30, 2015

Title	Organization	ProjDes	Amount	Start Date	End Date	Award Funding Source
Assessment of Sedimentation and Water Quality in the Fowl River Watershed, Mobile County, AL	Geological Survey of Alabama	characterize land use, erosion, and sedimentation in the watershed, to identify sources and establish baseline data and sedimentation rating curves that can be used to evaluate the effectiveness of restoration efforts	51,100.00	October 1, 2014	September 30, 2015	National Fish and Wildlife Foundation Gulf Environmental Benefit Fund/NEP