Comprehensive Conservation Management Plan

Protecting what we value most about living in coastal Alabama

Annual Work Plan
Year Two
Fiscal Year 2014-2015

Respect The Connect™

Mobile Bay National Estuary Program
www.mobilebaynep.com
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PREFACE

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

NEPs work to implement estuarine ecosystem-based management by characterizing the priority problems in their estuaries and surrounding 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 the 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 for Fiscal Year 2013-2014 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 of the Alabama's estuaries. MBNEP's purpose is to catalyze actions of estuary stakeholders, build community organizational capacity for sound resource management, and leverage commitment and investment to ensure the estuary's sustainability. MBNEP's objectives: Engage estuary stakeholders in the development of CCMPs; 2) expand resources and involvement in the implementation of these CCMPs; and 3) promote how to best protect this nationally significant ecological, economic, and cultural resource to ensure its conservation for our lifetime and beyond. To maximize effectiveness in promoting estuary health, the program's guiding principles are:

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

Economic opportunities must be available - Our coast is an economic engine, creating significant wealth for our State each year through activities such as trade through the Port of Mobile, recreational and commercial fishing, tourism, hunting and coastal construction. **Many jobs depend on coastal water quality, healthy populations of fish and wild life, and a mosaic of habitats 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: MBNEP WORK PLAN FOR 2013-2014

MAJOR GOALS AND FOCUS FOR 2013-2014

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** (Protecting); **Water quality** (drinking water quality and quantity, rivers, creeks, bay-fishable, swimmable, drinkable). During the coming year, management conference committees will focus on the following goals and objectives:

Science Advisory Committee

Improve understanding of how the estuarine ecosystem responds to anthropogenic stressors

- Maintain/improve existing level of coastal monitoring through the identification of funding and organizational capacity to manage historical, ongoing, and future estuarine data and conducting high resolution mapping of habitats within the estuary to establish present day baseline of distribution and coverage
- Establish process for measuring change in estuarine conditions through the creation of a Biological Condition Gradient Framework for the estuary

Project Implementation Committee-

Improve trends in Water Quality in priority watersheds with impairments (either 303(d)-listed or those with approved TMDLs) that discharge into priority fishery nursery areas

- Restore conditions, including hydrology, from headwaters to intertidal zone by conducting one sediment analysis (Fowl River); Preparing three watershed management plans (Fowl River, Bon Secour, Lower Chasaw); and implementing three watershed management plans (D'Olive, Eight Mile, Three Mile)
- Improve ecosystem function and resilience through protection, restoration and conservation of beaches, bays, backwaters, and rivers by building a living shoreline demonstration along publically owned property; building a living shoreline along **1,000** feet of privately owned property on the tip of Mon Louis Island
- Restore/Expand human connections by engaging the community in planting sea oats along_____ a Gulf Fronting beach and constructing _____new access points in Baldwin and Mobile Counties

Business Resources Committee

Improve Business community understanding of how coastal natural resources and estuaries contribute to economic, cultural, and community well being

- Develop and implement the Create a Clean Water Future (CCWF) messaging and marketing campaign to be an identifiable brand to foster private sector stewardship by building CWF branding. May include billboards and social media campaign that highlights positive private sector engagement; Deliver **four** presentations and conduct **four** tours of the estuary focused on educating the private sector about the value of our coastal resources; Promote business "team" participation in **four** service opportunities to support the CCWF campaign.
- Increase business support for protecting the estuary/coast by identifying and prioritizing cultural heritage projects and promoting improved stormwater management at the watershed scale.
- Conserve and improve working waterfronts and preserve fishing communities by using marine spatial planning techniques to more efficiently balance conservation, restoration and multi-uses of our fishery resources; conducting a feasibility/site assessment to determine best locations for safe harbors; pursuing designation of aquaculture enterprise zones to support fishery livelihoods

Government Networks Committee

Establish longterm capability of local governments to manage and maintain coastal environmental resources

- Improve elected officials' understanding of issues that impact environmental health and comprehensive land use and water resources management. In the coming year, this committee will host meetings to educate about resiliency, Home Rule, Stormwater/MS4, the Community Rating System and the Economics of Coastal Management.
- Minimize impacts and amount of contaminated stormwater runoff entering coastal waterways by supporting community clean ups, storm drain marking, and participation in the CCWF campaign
- Advocate for the protection and restoration of Gulf-fronting beaches, dunes, and shorelines as a first line of defense in protecting and increase resiliency of coastal communities and economies and habitats that provide valuable ecosystem services by developing a strategy for restoration and protection of beaches, dunes, and shorelines that is endorsed by elected officials in Mobile and Baldwin Counties

Community Action Committee

Increase awareness of coastal resources that support what people value about living in coastal Alabama.

- Improve citizens and property owners understanding of how to protect and restore what people value most through the presentation of educational programs, festivals; support community involvement in programs that connect people to our local waterways
- Improve community ability to participate in ecosystem based management actions by engaging grassroots groups in watershed planning; engaging citizens in collecting water quality and biological data that supports watershed planning; promoting volunteer opportunities of grassroots groups to other community sectors; creating a listserv for better communication
- Encourage citizens and community members to support and be more engaged in restoration and conservation of critical habitats by recruiting volunteer involvement in community clean up and restoration activities of other committees
- Increase citizen actions to mitigate impacts of humans on the environment by supporting and promoting the CCWF campaign undertaken by the Business Resources Committee to increase participation in environmental protection activities and implementing one of several programs that increase community stewardship through place based grassroots groups(Alabama Smart Yards/Healthy Gulf, Muddy Water Watch and Water Wise Habitats)

Finance Committee

Develop Organizational Development Plan for Mobile Bay National Estuary Program, including financing strategy for engaging member governments; solicit member government investment in Mobile Bay National Estuary Program

BUDGET OVERVIEW: 2013-2014

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 2013-2014 MBNEP EPA Budget below delineates anticipated sources of revenues, program expenditures and cash or in-kind match for the next year. Note: This budget is based on receipt of $538,000 from US EPA for the 2014-2015 program year.

Mobile Bay National Estuary Program
CCMP Work Plan 2014-2015 Budget

Detail within each of the expense categories follows.

Activity	Total EPA Funding Available (2 Years)	Year 2 2014 Proposed	Year 1 Committed	Year 1 2013 Budget (revised)	External Funding Committed
Ecosystem Status and Trends					
Coastal Monitoring Program	**16,250**	16,250	30,000	30,000	
Watershed Sediment Studies	**17,500**			17,500	84,500
Real Time Monitoring of Meteorological Conditions					
Ecosystem Restoration					
D'Olive Watershed	**1,544**			1,544	6,751,000
Eight Mile Creek Watershed	**15,000**	15,000			
Fowl River Watershed	**-**				250,000
Mon Louis Island Tip	**-**				1,488,000
Three Mile Creek Watershed	**46,855**	3,855		43,000	
Bon Secour Watershed	**40,000**	18,565		21,435	
Lower Chasaw Watershed	**33,848**	33,848			40,000
Capacity Building					
Alabama Water Watch	**5,000**			5,000	
Clean Water Partnership	**12,500**	12,500	10,000	10,000	
CRE Video- DI History/Future	**-**				
Estuary Corps	**9,000**			9,000	
Green Port Feasibility Study/Marine Spatial Planning	**-**				
Oyster Gardening	**1,000**			1,000	
Stewardship					
Management Conference Support	**3,000**	3,000			
Current Connections Newsletter	**8,000**	8,000			8,000
Interpretive Signage	**-**				
Video Production	**19,000**	5,000		14,000	
Special Events	**8,000**	8,000	14,435	14,435	
Promotional Materials	**8,210**	3,210		5,000	
Public Awareness Campaigns	**40,330**	40,330			
Program Planning and Administration					
1. Staff Salaries/Operating costs	**515,029**	515,030	524,246	524,245	68,500
2. DISL Administrative Fee	**102,388**	102,388	104,423	104,423	
	902,454	**784,976**	**683,104**	**800,582**	**8,690,000**

Project Details: Estuary Status and Trends

Expenses	Year 1 Revised	Year 2 Budget	External Funding
Estuary Status and Trends	**47,500**	**16,250**	**84,500**
1. Coastal Monitoring Program	30,000	16,250	
2. Watershed Sediment Studies	17,500		84,500
3. Real Time Monitoring of Meteorological Conditions			

What does biological integrity look like in the Mobile Bay estuary? 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 about the status of the biological condition of the Mobile Bay estuary. It will be imperative that this monitoring program be one that coincides with what citizen's value and data is communicated to the public so that 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 that citizens value most; and developing decision support tools to facilitate citizen to access these data sets.

In the next five years, the Science Advisory Committee will work with state and federal agencies to develop answers to the above questions. By participating in the Healthy Watersheds Initiative being coordinated by US EPA and building a Biological Condition Gradient framework for the coastal Alabama with assistance with US EPA Gulf Breeze Lab, both state and local resource managers will pursue development of a long term monitoring program. In addition, the SAC will promote development of baselines and other science necessary to support comprehensive watershed planning.

EST: 1. COASTAL MONITORING PROGRAM

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; High Resolution Habitat Maps of Mobile and Baldwin Counties; A first edition Biological Condition Gradient Framework and implementation plan
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)	$ 16,250
Other Funding	$ 0
Total	$ 46,250
Past Year Funding	
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.

Using a BCG framework to develop environmental goals 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. In assessing how a BCG framework could be used to measure status and trends of the Mobile Bay estuarine

system, the SAC is modifying it by looking at the relationship between the amount of stressor impacts and changes to different ecosystem services.
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 in 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.***

During the past program year, the SAC oversaw the completion of research to evaluate improvement of two ecosystem goods that result from habitat restoration: Abundance and diversity of shellfish and finfish (including species with commercial and recreational value) and filtration of pollutants and water clarity. These improvements were evaluated at three restoration sites: Helen Wood Park, Dog River Park, and Mon Louis Island. At each of these sites a control (non-restored) area was compared to restored locations. Samples were taken periodically for another year along transects running from the upper intertidal areas adjacent to the sub-tidal.

The objectives of these activities were to measure the amount of ecosystem enhancement in intertidal marsh, riverine, and intertidal flat restorations and to determine the relationship between stressor and ecosystem service losses over time. In addition, datasets have been compiled from Mobile Bay to inspect whether relationships exist between habitat loss through modifications and targeted goods and services of the Mobile Bay ecosystem, such as fisheries productivity and removal of nutrient pollution. This information is instrumental in ascertaining human impacts on the health of the Mobile Bay ecosystem and will help devise management strategies and monitoring parameters for the Mobile Bay estuary.

Objectives for 2014-2015 year:
Improve understanding of how the estuarine ecosystem responds to anthropogenic stressors

- Provide interim support for real time monitoring program while seeking out new operational funding sources to maintain and improve consistent long term data sets to manage historical, ongoing, and future estuarine activities.
- Conduct habitat mapping to establish baseline of distribution and coverage.
- Establish process for measuring change in estuarine conditions through the creation of a Biological Condition Gradient Framework for the estuary and an action plan/financing for its implementation

Objectives for 2013-2014 year:
Increase understanding of how to monitor estuary health; identify biological indicators; incorporate into a coastal biological monitoring program; create outline for **a Scorecard of Estuary Health** using Healthy Watersheds/Biological Condition Gradient Frameworks.

Accomplishments for 2013-2014 year:
Healthy Watersheds project complete-Report produced; Plan of action for completing BCG-Report produced; Literature review, sampling to determine gains in ecosystem services-in progress.

EST: 2. WATERSHED SEDIMENT STUDIES

Project Number	EST1402
Title **Values Supported**	Comprehensive Coastal Sediment Loading Analysis Initiative
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)	$17,500
Year 2 (2014-2015)	$ 0
Other Funding	$ 84,500
Total	$ 102,000
Past Year Funding	
Match/Leverage	$17,500 (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.

Fowl River drains much of southern Mobile County. 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. Thirteen percent of the watershed area is classified as urban, 16% as crop or pasture land, and 28% is forested. Stakeholder concerns include loss of wetlands and shoreline erosion, frequently related to recreational boating. Increases in development and

continuing erosion and sedimentation threaten water and habitat quality and the quality of life enjoyed by the residents of the watershed.

Objectives for 2014-2015 year:
Improve trends in Water Quality in priority watersheds with impairments (either 303(d)-listed or those with approved TMDLs) that discharge into priority fishery nursery areas
Conduct sediment analysis for Fowl River, other TBD in partnership with Geological Survey of Alabama (TBD)

Objectives for 2013-2014 year:
Undertake Sediment Study in Fowl River that establishes quantitative baselines for measuring progress through watershed planning.

Accomplishments for 2013-2014 year:
Dog River Sediment Study complete-Report produced; Bon Secour Sediment Study-In progress; Fowl River Sediment Study-delayed

EST: 3. REAL-TIME MONITORING OF METEOROLOGICAL CONDITIONS

Project Number	EST1403
Title	Real-Time Meteorological Conditions Monitoring
Values Supported	
Purpose	Provide an opportunity to collect water quality data over the long term in Mobile Bay and along the Alabama coastline
Outputs/Deliverables	Data to 1) inform the status and 2) enhance public awareness of water quality condition throughout the bay
Outcomes	Data collected will greatly assist in determining the designated water use criteria for the State of Alabama and providing baseline readings for 303(d) improvements.
Clean Water Act Relevance	Support TMDL development
Year 1 (2013-2014)	$ 0
Year 2 (2014-2015)	$ 0
Other Funding	$ 239,925 (Gulf of Mexico Program completed)
Total	$ 239,925
Past Year Funding	
Match/Leverage	DISL, US EPA Gulf of Mexico Program
Lead/Partners	DISL/MBNEP, ADEM

This comprehensive, Bay-wide, water monitoring program began in the FY 2003 Work Plan and was funded by the Coastal Impact Assistance 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. Water samples are lab-analyzed and reported in the local newspapers. The data collected will be of great value in determining the designated water use criteria for the State of Alabama and provide baseline data for 303(d) improvements.

Objectives for 2014-2015 year:
Support a comprehensive, bay-wide, long term data set of water quality conditions throughout the bay to inform boaters, Coast Guard and scientists.

Objectives for 2013-2014 year:
Support a comprehensive, bay-wide, long term data set of water quality conditions throughout the bay.

Accomplishments for 2013-2014 year:
Project completed.

PROJECT DETAILS: ECOSYSTEM RESTORATION

Expenses	Year 1 Revised	Year 2 Budget	External Funding
Ecosystem Restoration and Protection	**67,978**	**71,268**	**8,761,000**
1. D'Olive Watershed	1,543		6,751,000
2. Eight Mile Creek Watershed		15,000	
3. Mon Louis Island (Fowl River Watershed)			1,738,000
4. Three Mile Creek Watershed	43,000	3,855	
5. Bon Secour Watershed	21,435	18,565	
6. Lower Chasaw Watershed		33,848	40,000

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 wellbeing, protection against sea level rise, economic sustainability, recreation, and community quality of life.

Over the next five years, 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. To ensure that 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 at the 12-digit

Hydrologic Unit Code scale. All watershed plans will be based on US EPA guidance, addressing the following key elements:

- Identification causes of impairment
- Estimation the pollutant load reductions expected from restoration/management measures
- Description of non-point source reduction measures and 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 the restoration measures and to engage them in long term implementation of the plan
- Schedule for implementation, Key milestones, Evaluation criteria

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 available to the public to facilitate connections to our coastal waters and open spaces.

ERP: 1. D'OLIVE WATERSHED: STABILIZATION OF ACTIVELY ERODING AREAS

Project Number	ERP1401
Title	D'Olive Watershed Implementation
Values Supported	
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
Other Funding	$ 6,751,000
Total	$ 6,752,544
Past Year Funding	$ 9,400
Match/Leverage	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) substantially completed, this project proposes to restore the rest of Joe's Branch sub-watershed, and stabilize severely eroding areas in D'Olive Creek and Tiawasee Creek.

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, Auburn University/Alabama Cooperative Extension System, MBNEP, the Dauphin Island Sea Lab, and property owners.

Objectives for 2014-2015:

- Restore conditions, including hydrology, from headwaters to intertidal zone by implementing the D'Olive watershed management plan by stabilizing 13 different stream segments and installing stormwater management Best Management Practices.

Objectives for 2013-2014 year:
Ongoing implementation assistance

Accomplishments for 2013-2014 year:
1,000 feet tributary to Joes Branch complete; Two detention ponds built by City of Spanish Fort; Funding secured for completion of stabilization activities; Funding secured for watershed.

ERP: 2. EIGHT MILE CREEK WATERSHED: WQ 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
Other Funding	$ 0
Total	$ 15,000
Past Year Funding	$ 25,000
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 will 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.

During the last program year, approximately 40-square miles were 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.

Objectives for 2014-2015 year:
Restore conditions, including hydrology, from headwaters to intertidal zone by implementing the Eight Mile Creek Watershed Management Plan by implementing a septic pump out/repair program.

Objectives for 2013-2014 year:
Photograph Eightmile Creek with an infrared (CIR) camera to identify potential failing septic systems

Accomplishments for 2013-2014 year:
Infrared imagery of watershed-Produced; Ground trothed to identify failing septic systems-In progress

ERP: 3. FOWL RIVER WATERSHED: PLANNING AND RESTORATION

Project Number	ERP1403
Title	Mon Louis Island Shoreline Habitat Improvements
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
Outputs/Deliverables	Stabilization of 1,000 ft. of shoreline; 1,000 feet of near shore habitat, create 6 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
Year 1 (2013-2014)	$
Year 2 (2014-2015)	$
Other Funding	$ 1,738,000
Total	$ 1,738,000
Past Year Funding	$ 140,000
Match/Leverage	$ 10,000 (in kind services)
Lead/Partners	MBNEP/Private property owner

With the Shoreline Stabilization/Habitat Creation Project along the Mon Louis Island properties of six adjacent owners complete and functioning, attention is being turned to 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 could recommend shoreline stabilization techniques, where interruption of long shore, northerly sand transport would not affect down drift properties but instead may reduce the frequency of dredging efforts necessary to maintain an open channel in the mouth of East Fowl River. 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 six acres of productive brackish marsh habitat as well as residential properties to the south.

Funding has been secured to prepare the engineering design for this restoration, and these plans are anticipated to be complete by December, 2013.

Objective for 2014-2015 year:
Restore conditions, including hydrology, from headwaters to intertidal zone by preparing a Fowl River watershed management plan. Restoration projects will be identified during planning process.

Objectives for 2013-2014 year:
Planning and design for restoration of Tip of Mon Louis Island

Accomplishments for 2013-2014 year:
Funding secured for restoration and planning; Pre planning and evaluation of alternatives related to use of dredge material-In progress

ERP: 4. THREE MILE CREEK WATERSHED: RESTORATION

Project Number	ERP1404
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
Outputs/Deliverables	Watershed Management Plan initial implementation (project TBD)
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
Year 2 (2014-2015)	$ 3,855
Other Funding	$ 0
Total	$ 46,855
Past Year Funding	$ 252,385
Match/Leverage	MAWSS, Mobile County, City of Mobile , Waterkeeper Alliance, , US Army Corps of Engineers, US Fish and Wildlife Service, US EPA
Lead/Partners	MBNEP/US ARMY CORPS, USFWS, ADCNR, ADEM, MAWSS, City of Mobile, Mobile County, Gulf Coast Asphalt, Inc.

In January, 2013 Dewberry, in partnership with Brown and Caldwell, Aerostar, and Placemaker, was hired to develop a watershed management plan for the Three Mile Creek Watershed that 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. From 1974 to 2008, the urban area of this watershed increased from 49.5% to 70.2%, with significant development occurring in a portion of the watershed that has 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. The identified primary sources of impairment within the watershed as described in the TMDL are municipal collection system failures and urban stormwater runoff.

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. Lower portions of the Creek were listed for chlordane (from unknown sources) between 2000 and 2006 but were delisted in 2008 when no exceedences were sampled. 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,
- 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, and
- Identify opportunities to mitigate future impacts of development in the watershed, where feasible.

The plan will chart a conceptual course for transforming this degraded urban watershed and creek to support improved water quality and fish and wildlife health, enhanced community health and civic pride, increased property values, and economic development opportunities as a unique urban ecotourism and cultural destination that celebrates local environmental resources and history.

During the next program year, implementation of this watershed plan will begin. This funding has been budgeted to provide a catalyst for implementing on the ground measures to be identified in the plan.

Objective for 2014-2015 year:
Restore conditions, including hydrology, from headwaters to intertidal zone by implementing the Three Mile Creek watershed management plan. Projects to be determined

Objectives for 2013-2014 year:
Implementation of the Three Mile Creek Watershed Management Plan-Specifically, City of Mobile construction of public facilities as part of its Community Development Block Grant in the low income areas of the watershed

Accomplishments for 2013-2014 year:
Three Mile Creek Watershed Management Plan-Produced; Two community clean-ups

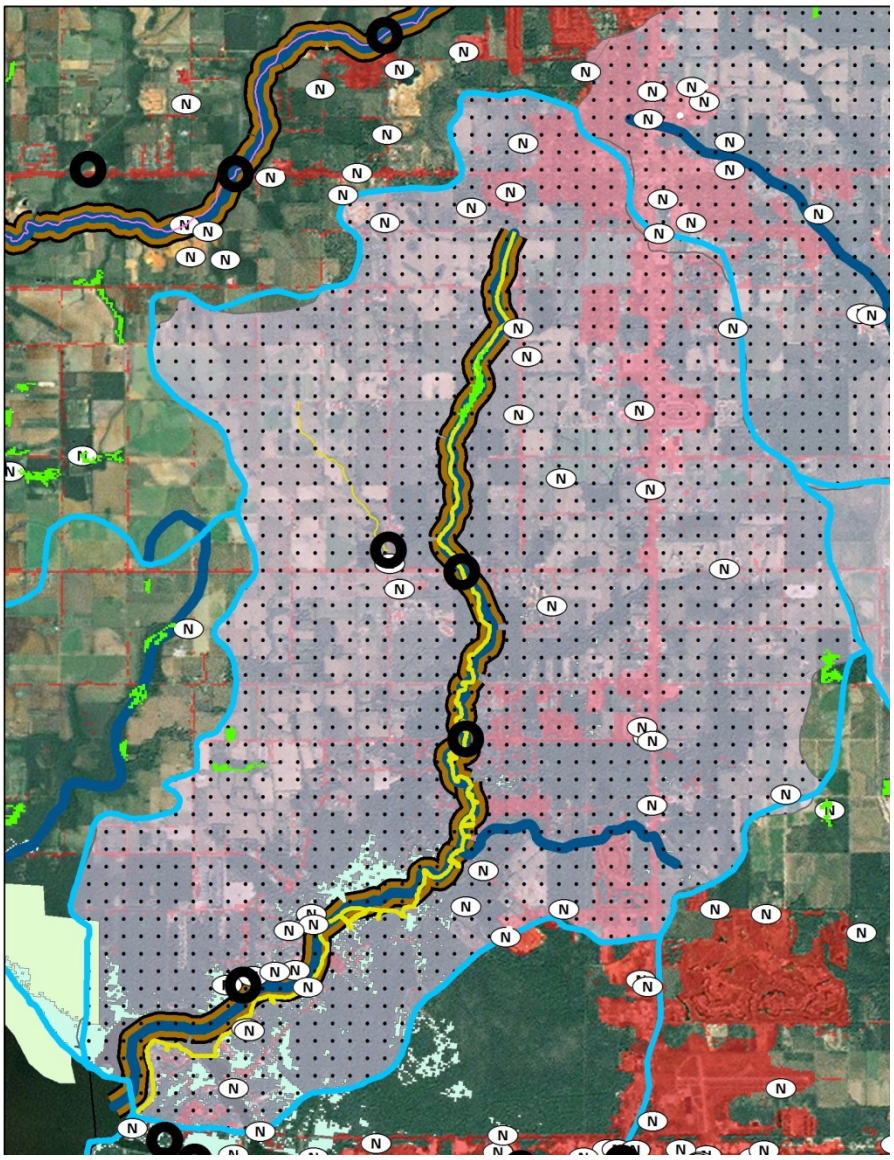
ERP: 5. BON SECOUR WATERSHED: PLANNING

Project Number	ERP1405
Title	Watershed Management Plan- Bon Secour
Values Supported	
Purpose	To promote the wise stewardship of the Bon Secour watershed and foster improved oyster productivity in Bon Secour bay
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)	$ 21,435
Year 2 (2014-2015)	$ 18,565
Other Funding	$ 0
Total	$ 40,000
Past Year Funding	
Match/Leverage	
Lead/Partners	MBNEP/ADCNR

The Bon Secour River, which drains part of southwestern Baldwin County and flows southwestward into Bon Secour Bay in the southeastern corner of Mobile Bay, is targeted for watershed management planning during FY18. Land use in the watershed is varied and characterized urban, residential, and rural. Headwaters are dominated by urban and residential land use that includes the southern part of the City of Foley. The central part of the watershed is rural and dominated by agriculture, although with recent development, residential is becoming the dominant land use. Upstream and central parts of the watershed have flashy stream flow with numerous intermittent streams that transport storm water flow during frequent rainfall events. The downstream portion is characterized as tidal with uplands dominated by residential development. Near Bon Secour Bay, the watershed is dominated by industrial and commercial land use, primarily associated with the commercial fishing industry.

Erosion and sedimentation in many watershed areas are likely excessive and major contributors to degraded water quality and habitat destruction. Stakeholders are concerned that increasing development and continuing

erosion and sedimentation will jeopardize future water and habitat quality currently enjoyed. The Geological Survey of Alabama has engaged in sediment analyses for this watershed to identify sources of sediment and to establish baseline data and sedimentation rating curves that could be used to evaluate future changes in erosion and sediment transport. The monitoring project assessed suspended and bed sediment transport rates at selected sites in tributaries to the Bon Secour River. Monitoring is be based on precipitation and resulting stream and river discharge, including basic field acquired physical and water quality parameters as well as sediment. 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 data may also be used to assist municipal and state erosion and sedimentation inspection programs. This project will be complete by September 30, 2013.



Due to the percentage of impervious cover and the presence of 303(d) listed water bodies (the Bon Secour River is listed for mercury and Bon Secour Bay is listed for pathogens), this 33.5-acre watershed was identified by the Habitats Tools as a priority watershed for restoration. The criteria were developed by The Nature Conservancy, the NOAA Coastal Services Center, and Coastal Habitats Coordinating Team comprising, local resource management personnel. It was ranked in the top five by MBNEP's Project Implementation Committee among priority watersheds for restoration.

Objectives 2014-2015 year:
Restore conditions, including hydrology, from headwaters to intertidal zone by **developing a watershed management plan for the Bon Secour River Watershed that will recommend actions that provide opportunities to improve ecosystem function and protection** while expanding community engagement and ownership.

Objectives for 2013-2014 year:
Prepare watershed management plan

Accomplishments for 2013-2014 year:
Delayed

ERP: 6. LOWER CHASAW WATERSHED: PLANNING

Project Number	ERP1406
Title	Watershed Management Plan- Bon Secour
Values Supported	
Purpose	To promote the wise stewardship of the Lower Chasaw watershed and foster improved ecosystem function and community access
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
Year 2 (2014-2015)	$ 33,848
Other Funding	$ 40,000
Total	$ 73,848
Past Year Funding	
Match/Leverage	
Lead/Partners	City of Prichard, Hudson River Foundation, MBNEP, ADEM

In 2014, MBNEP will distribute a Request for Qualifications for a professional consultant/engineering firm to generate a Comprehensive Watershed Management Plan for the Lower Chasaw Creek Watershed. This project, funded by MBNEP and the Hudson River Foundation, will be undertaken to create capacity for the City of Prichard, AL to protect and restore its natural resources to spur establishment of an ecotourism industry and as a mechanism for adapting to climate change. Natural resources in Prichard, a highly-disadvantaged, predominantly African-American community include parcels of undeveloped woodland and marshland, especially in northern portions of the City that include Chickasabogue and Africatown parks. Prichard's

creeks and estuarine environments, surrounded by designated floodways and floodplains, make these areas particularly amenable for passive parks, trails, and other recreational uses.

The goals of this project are to link sustainable economic growth and community resilience to environmental protection and to expand opportunities for establishing new revenue sources for a community struggling with a limited tax base. These goals will be met by achieving the following objectives:

- Initiate a watershed planning effort to build ownership and capacity for protecting and appropriately using community natural resources in part to mitigate impacts of climate change,
- Develop vision and a "road map" for transforming community waterways and green spaces into parks and trails that accommodate the impacts of climate change and generate additional sources of community revenue.
- Build capacity within the City of Prichard through the creation of a Resiliency Coordinator position to ensure planning and implementation of plans and seek out funding mechanisms to support watershed management and ecotourism activities, and
- Promote the connection between environmental quality, climate change, and community economic value through the development of a comprehensive outreach and education campaign focused on increasing awareness about the impacts of climate change on the Prichard community and how environmental protection can help mitigate those impacts.

Objective for 2014-2015 year:

Increase capacity of the City of Prichard to use natural resources as tools for improved community resiliency and economic opportunity through the development of a CWMP for the Lower Chasaw Creek Watershed ,expansion of green space, creation of a Resiliency Coordinator Position, and expansion of the Create a Clean Water Future public awareness campaign.

PROJECT DETAILS: TECHNICAL ASSISTANCE/ CAPACITY BUILDING

Expenses	Year 1 Revised	Year 2 Budget	External Funding
Technical Assistance and Capacity Building	**25,000**	**12,500**	
1. Alabama Water Watch	5,000	-	
2. Clean Water Partnership	10,000	12,500	
3. Climate Ready Estuaries- DI History/Future			
4. Estuary Corps	9,000		
5. Green Port Feasibility Study			
6. Oyster Gardening	1,000		

Watershed-based, grassroots organizations are the cornerstone of community-based efforts to promote the wise stewardship of the water quality and living resources of Mobile Bay's estuarine waters. The mission of MBNEP is to provide the necessary tools to support those efforts, accomplished through the delivery of 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 organization. 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. Integration of EPA's Climate Ready Estuaries program will ensure that the impacts of climate change and sea level rise are considered as projects are planned and implemented.

Estuary Corps will cultivate an adult cadre of environmental stewards available to undertake volunteer efforts to improve water quality, provide habitat, and educate potential environmental stewards. A Green Port Feasibility study will inform State partners about opportunities to reduce their "environmental footprint." Oyster Gardening has proven to be a valuable tool in cultivating stewardship in shoreline property owners and instilling values that drive sustainable decisions about shoreline and habitat protection. Initiation of a watershed management plan for the Bon Secour River Watershed will provide opportunities to chart a course for protection of a critical priority watershed threatened by the impacts of increasing development upstream.

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: 1. ALABAMA WATER WATCH COASTAL PROGRAM SUPPORT

Project Number	TAC1401
Title	Alabama Water Watch Coastal Program Support
Values Supported	
Purpose	To expand citizen stewardship of the estuary through voluntary water quality monitoring activities
Outputs/Deliverables	Train 5 Water Quality Monitoring Trainers and 25 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)	$ 0
Other Funding	$ 0
Total	$ 5,000
Past Year Funding	$ 2,547
Match/Leverage	AWW
Lead/Partners	AWW/MBNEP, CAST

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.

Objective 2014-2015 year:
Increased participation in Alabama Water Watch training and monitoring activities will improve community ability to participate in ecosystem based management actions by engaging grassroots groups in watershed collecting water quality and biological data that supports watershed planning.

One AWW workshop will be held on the coast to train or recertify at least 5 AWW trainers

- Trainer workshops certify citizen trainers to teach and certify volunteer water quality monitors to collect and report water quality data to AWW.

Two AWW workshops will be held on the coast to train or recertify at least 25 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, we 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
- Using and promoting the SWIM Guide (https://www.theswimguide.org/) as a tool to alert coastal residents of water quality concerns at area beaches
- Adopting a refractometer method for testing salinity
- Increased number of coastal training opportunities
- General increase of youth programing (through 4H and other avenues)

Objectives for 2013-2014 year:
Second year funding of the Alabama Water Watch program to program to promote citizen monitoring of water quality conditions within the Mobile Bay Estuary

Accomplishment for 2013-2014 year:
Ongoing facilitation of the partnership

TAC: 2. COASTAL CLEAN WATER PARTNERSHIP- NON-POINT SOURCE POLLUTION PROGRAM

Project Number	TAC1402
Title	Coastal Clean Water Partnership- NPS Pollution Program
Values Supported	
Purpose	Assess, plan and implement projects to address non-point 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
Other Funding	$ 0
Total	$ 22,500
Past Year Funding	$ 40,500
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.

Objectives 2014-2015 year:
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 to expand coastal nonpoint-source education and outreach efforts, including but not limited to:

- CAST - The Coastal Alabama Stormwater Team (CAST), is a local coalition of 20 local organizations, municipalities, and agencies working together to address stormwater in coastal Alabama. The primary focus of this group has been a public education campaign, "Creating a Clean Water Future", which has included PSAs in local print and television and the development of a webpage and support materials.
- 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. In the coming year, the facilitator will coordinate meetings to educate about resiliency, Home Rule, Stormwater/MS4, the Community Rating System and the Economics of Coastal Management.
- Minimize impacts and amount of contaminated stormwater runoff entering coastal waterways by supporting community clean ups, storm drain marking, and participation in the CCWF 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. As part of a State-wide NRCS initiative, watersheds have been ranked on a State-Wide list in three categories (Urban, Ag/Forestry, and Aquatic Resources) with the possibility of the top five in each category being eligible for additional implementation funding.

Objectives for 2013-2014 year:
Cost share position to address non-point source issues throughout the coastal basin

Accomplishments for 2013-2014 year:
Host for Coastal Clean Water Partnership Facilitator

TAC: 3. CLIMATE READY ESTUARIES: DAUPHIN ISLAND HISTORY TO FUTURE

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
Other Funding	$ 0
Total	$ 0
Past Year Funding	$ 12,500
Match/Leverage	Town of Dauphin Island
Lead/Partners	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 2014-2015 year:
Increase business support for protecting the estuary/coast by identifying and prioritizing cultural heritage projects. Produce an 18-20 minute Oral History Video for Dauphin Island that highlights traditional ecological knowledge to educate private sector about environmental resiliency

Objectives for 2013-2014 year:
Production of short film to document traditional ecological knowledge and compare to climate change predictions.

Accomplishments for 2013-2014 year:
In progress

TAC: 4. 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	20 Estuary Corps Members
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
Other Funding	$ 0
Total	$ 9,000
Past Year Funding	
Match/Leverage	
Lead/Partners	MBNEP/DISL

Engaging volunteers in activities that improve estuary conditions is vital to the long-term sustainability of our coastal environment. Building knowledge and ownership through involvement activities lays a foundation for care of the water quality and living resources of this estuarine system. A Mobile Bay Estuary Corps program was undertaken at Phillips Preparatory School and Spanish Fort Middle School during the 2012-2013 year. MBNEP, Alabama Coastal Foundation (ACF) and DISL partnered to create an "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." During the next fiscal year, MBNEP will develop partnerships for establishing a conservation or "estuary" corps in line with the original vision.

Objectives 2014-2015 year:
Encourage citizens and young adults to support and engage in restoration and conservation activities by recruiting volunteer involvement in estuary corps in line with original vision targeting Three Mile Creek Watershed in managing and eradicating where possible, invasive species.

Objectives for 2013-2014 year:
Second year funding of Estuary Corps Program in partnership with DISL

Accomplishments for 2013-2014 year:
Phillips Preparatory; Spanish Fort Middle School; Cody Road Big Brothers Big Sisters-after school program

TAC: 5. GREEN PORT FEASIBILITY /MARINE SPATIAL PLANNING

Project Number	TAC1405
Title	Green Port Feasibility /Marine Spatial 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; Port Expansion feasibility study
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
Other Funding	$ 0
Total	$ 0
Past Year Funding	$ 195,000 (CMP)
Match/Leverage	
Lead/Partners	Alabama State Port Authority/ADCNR, MBNEP, MASGC, others

In the past, port development and operations often resulted in considerable alteration of and damage to the natural environment. In response to nationally-mandated environmental protection, ports are more conscious of and responsive to the need to minimize impacts on natural resources and surrounding communities. In fact, the need to address environmental concerns is a top priority for many U. S. ports, according to a poll of the membership of the Association of American Port Authorities.

Port development and expansion often requires significant alteration of the environment through dredging and filling and on-going operations and maintenance have the potential to impact the quality of air, soil, and water resources. The common challenge faced by ports is the need to conduct all aspects of their operations in an environmentally sound yet economically productive and competitive manner. Although any port will always impact the environment, by thinking strategically, dealing responsibly with waste, and monitoring energy and

water usage, it is possible to develop as much of an environmentally-friendly outlook as possible. A port obviously does not become 'clean and green' overnight, but it can make a significant contribution to the environment while saving money through reduced energy consumption in the long-term.

The Alabama State Port Authority comprises several different parts, all of which contribute to its environmental footprint. These can be segregated into maritime activities, in-port operations and in-land transport. Offering a gateway to the Gulf of Mexico, the Port Authority, a government agency, operates the deepwater port facilities in Mobile. The port complex includes facilities for handling general cargo, such as containers, forest products, and metals, as well as liquid bulk and dry bulk cargo, such as chemicals, coal, iron ore, and steel. The port complex features more than four million square feet of warehouse space and open yards and almost 40 berths. A 75-mile rail line links Port of Mobile facilities and provides connections to major freight railroads.

An economic impact study completed recently by John C. Martin Associates estimates that the Port of Mobile generates an estimated statewide economic value from cargo and vessel activity of $22.3 billion, some $18.7 billion of which is attributed directly to the authority's public terminals. The Port is an invaluable component of the State of Alabama's prosperity and a major stakeholder in protecting the water quality and living resources of Mobile Bay and the Tensaw Delta.

As a major stakeholder of the Mobile Bay estuary, the Port is committed to continuously improving its operations to be more "green" by strengthening environmental performance through a process of continuous improvement; building strong relations with marine waterway stakeholders; and enhancing the community's understanding of the industry's activities and environmental performance. With a $40 million ship channel widening project in its future which will dramatically increase port traffic, an opportunity exists to investigate opportunities to grow in an environmentally friendly manner.

Objectives for 2014-2015 year:
Conserve and improve working waterfronts and preserve fishing communities by using marine spatial planning techniques to more engage in dialogue through the Working Waterfronts Coalition about how to efficiently balance conservation, restoration and multi-uses of our fishery resources;

The MBNEP, with guidance from the steering committee, will assist the Coastal Section of the ADCNR in the development of a Coastal Marine Spatial Planning (CMSP) GIS-based Decision Support Tool for coastal Alabama. This may involve developing a new support tool or adapting an existing tool to the needs of CMSP in coastal Alabama. This will include:

- Compilation of examples of existing GIS-based decision tools
- Analyzing the strengths, weaknesses, and appropriateness for their use in CMSP
- Determine the features desired for a Decision Support Tool
- Recommending a path forward for the development of the Decision Support Tool

Objectives for 2013-2014 year:
Pursue the development of "GreenPort" status for ports within the estuary through assessment of needs and development/implementation of consistent Green Port policies to improve bay sediment and water quality

Accomplishments for 2013-2014 year:
Coastal Marine Spatial Planning-Data sets related to marine activities updated; Survey of users-Completed; Web visualization tool-Under development

TAC: 6.OYSTER GARDENING

Project Number	TAC1406

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
Other Funding	
Total	$ 1,000
Past Year Funding	
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 2014-2015 year:
Funding for this program supports ongoing purchases of gardening supplies and outreach activities.

Objectives for 2013-2014 year:
Provide financial support for the purchase of oyster gardening equipment

PROJECT DETAIL: EDUCATION AND PUBLIC INVOLVEMENT

Expenses	Year 1 Revised	Year 2 Budget	External Funding
Education and Public Involvement	**33,435**	**67,540**	**8,000**
1. Management Conference Support		3,000	
2. Semi Annual Newsletter		8,000	8,000
3. Interpretive Signage			
4. Video Production	14,000	5,000	
5. Special Events	14,435	8,000	
6 Promotional Materials	5,000	3,210	
7. Public Awareness Campaigns		40,330	

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: 1. 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
Other Funding	
Total	$ 3,000
Past Year Funding	
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 for 2014-2015. Efforts to engage and inform key stakeholders of past efforts and future projects of the MBNEP will be accomplished in various ways:

- Incorporate the "Create A Clean Water Future" 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, and municipalities, 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 and advocate 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 2014-2015 year:
Support the MBNEP Business Resources Committee in building the CWF brand and expanding company involvement in environmental protection

EPI: 2. SEMI ANNUAL NEWSLETTER

Project Number	EPI1402
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)	$ 0
Year 2 (2014-2015)	$ 8,000
Other Funding	$ 8,000
Total	$ 16,000
Past Year Funding	
Match/Leverage	
Lead/Partners	MBNEP, ADCNR State Lands Division

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

Objectives for 2014-2015 year:
Two newsletters will be published in the next year for distribution as hard copy as well as in electronic format.

Objectives for 2013-2014 year:
Two newsletters published for distribution

Accomplishments for 2013-2014 year:
Two newsletters-Produced

EPI: 3. EDUCATIONAL/INFORMATIVE SIGNAGE

Project Number	EPI1403
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
Other Funding	$ 0
Total	$ 0
Past Year Funding	$ 3,058
Match/Leverage	
Lead/Partners	MBNEP

MBNEP will develop and install three 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, and Steele Creek Lodge. Reading Park is in production.

Objectives 2014-2015 year:
Improve citizens and property owners understanding of how to protect and restore what people value most through the presentation of educational programs. During the next program year, interpretive signage will be created for Joes Branch and at the Hwy 161wetlands restoration in Orange Beach.

Objectives for 2013-2014 year:
Interpretive signage will be prepared for Satsuma, Reading Park, Three Mile Creek, and Eight Mile Creek

Accomplishments for 2013-2014 year:
City of Satsuma, Reading Park, Three Mile Creek, Eight Mile Creek Road Signage-Produced

EPI: 4. 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
Other Funding	$ 0
Total	$ 19,000
Past Year Funding	
Match/Leverage	
Lead/Partners	MBNEP

In response to increasing concern about the health of Gulf coast watersheds due to excessive anthropogenic nutrient loading, MBNEP has partnered with the Dauphin Island Sea Lab, the Gulf of Mexico Program, Hamline University and a local producer to develop two interactive, touring videos and three interactive, touring kiosks. This program, with English and Spanish translation, will educate children and adults about the impacts of excess nutrients on Gulf coastal waters and stimulate behavior changes. It will clarify the concepts of "watersheds" and "estuaries" and describe the various sources of nutrients, their impacts on estuaries, and actions that people can take to reduce nutrient input and impacts. When finished, the videos and kiosks can be used together to reinforce key messages. However, they still will provide comprehensive educational value if used independent of each other.

With the first installment, "*A Redfish Tale*," complete, MBNEP produced a second video, "Fish Slap," that highlights both positive and negative human behaviors and their effects on our environmental resources. The

leading characters of the first video, animated redfish named Jimbo and Thibodaux, return in the second video to provide the continuing perspective of "a fish out of water" to emphasize the sense of urgency. The three interactive kiosks that complement the videos travel throughout the Gulf to educate the general public about watersheds and practices that can negatively impact our environment.

Objectives for 2014-2015 year:
Improve citizens and property owners understanding of how to protect and restore what people value most through the presentation of educational programs. One five minute video will be produced.

Objectives for 2013-2014 year:
Short videos to showcase estuary issues (TBD)

Accomplishments for 2013-2014 year:
MS4 video, Joes Branch restoration video-Produced; Dauphin Island video-In Progress

EPI: 5. 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	Create an Outreach and Communications plan, Sponsor 5 community events, Conduct 3 public meetings/workshops
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
Other Funding	$ 0
Total	$ 22,435
Past Year Funding	
Match/Leverage	
Lead/Partners	Community groups, Management Conference members

MBNEP will continue to support and participate in such activities as Coastal Kids Quiz, Baldwin and Mobile County Water Festivals, Wolf Bay Watershed Watch Kid's Fishing Tournament, Discovery Day, Coastal Cleanup, BirdFest, and others.

Objectives for 2014-2015 year:
MBNEP will continue to support and participate in such activities as Coastal Kids Quiz, Baldwin and Mobile County Water Festivals, Wolf Bay Watershed Watch Kid's Fishing Tournament, Discovery Day, Coastal Cleanup, BirdFest and others

Objectives for 2013-2014 year:
Annual support and sponsorship of community special events including Coastal Clean-up, Coastal Kids Quiz, and BirdFest

Accomplishments for 2013-2014 year:
BirdFest, Coastal Clean-up, Wolf Bay Watershed Tournament, Coastal Kids Quiz, Water Festival

EPI: 6. 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
Other Funding	
Total	$ 8,210
Past Year Funding	
Match/Leverage	
Lead/Partners	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 that establishes goals, identifies target

audiences, determines what information should be disseminated and how, implements actions, and evaluates results.

Objectives for 2014-2015 year:
Purchase of promotional items to support public awareness campaigns and improve name recognition of MBNEP

Objectives for 2013-2014 year:
Purchase of promotional materials with educational messaging to give out at special events

Accomplishments for 2013-2014 year:
Cups, pens, Frisbees, gym bags, other with Clean Water Future messaging

EPI: 7. COMMUNITY AWARENESS CAMPAIGNS

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
Outputs/Deliverables	MBNEP, CAST
Outcomes	Production of educational materials to be distributed at community meetings and events, a marketing campaign
Clean Water Act Relevance	Increase public awareness of environmental issues; Increased knowledge of environmental issues and stressors
Year 1 (2013-2014)	$ 0 (Note: This campaign is part of past year grant reprogram)
Year 2 (2014-2015)	$ 40,330
Other Funding	$ 0
Total	$ 40,330
Past Year Funding	$ 29,670
Match/Leverage	
Lead/Partners	MBNEP/CAST

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 2014-2015 year:
Promote the CCWF campaign undertaken by the Business Resources Committee to increase citizen actions to mitigate their impact on the environment.

Objectives for 2013-2014 year:
Development of Create A Clean Water Future Campaign Phase I, to include messaging platform, development of logo, website, social media, two radio PSAs and two television PSAs.

Accomplishments for 2013-2014 year:
Phase I of Create A Clean Water Future campaign-Developed

PROJECT DETAIL: PROGRAM IMPLEMENTATION

Expenses	Year 1 Revised	Year 2 Budget	External Funding
Program Planning and Administration	**628,669**	**617,418**	**68,500**
1. Staff Salaries/Operating Costs	524,245	515,030	
2. DISL Administrative Fee	104,424	102,388	

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.

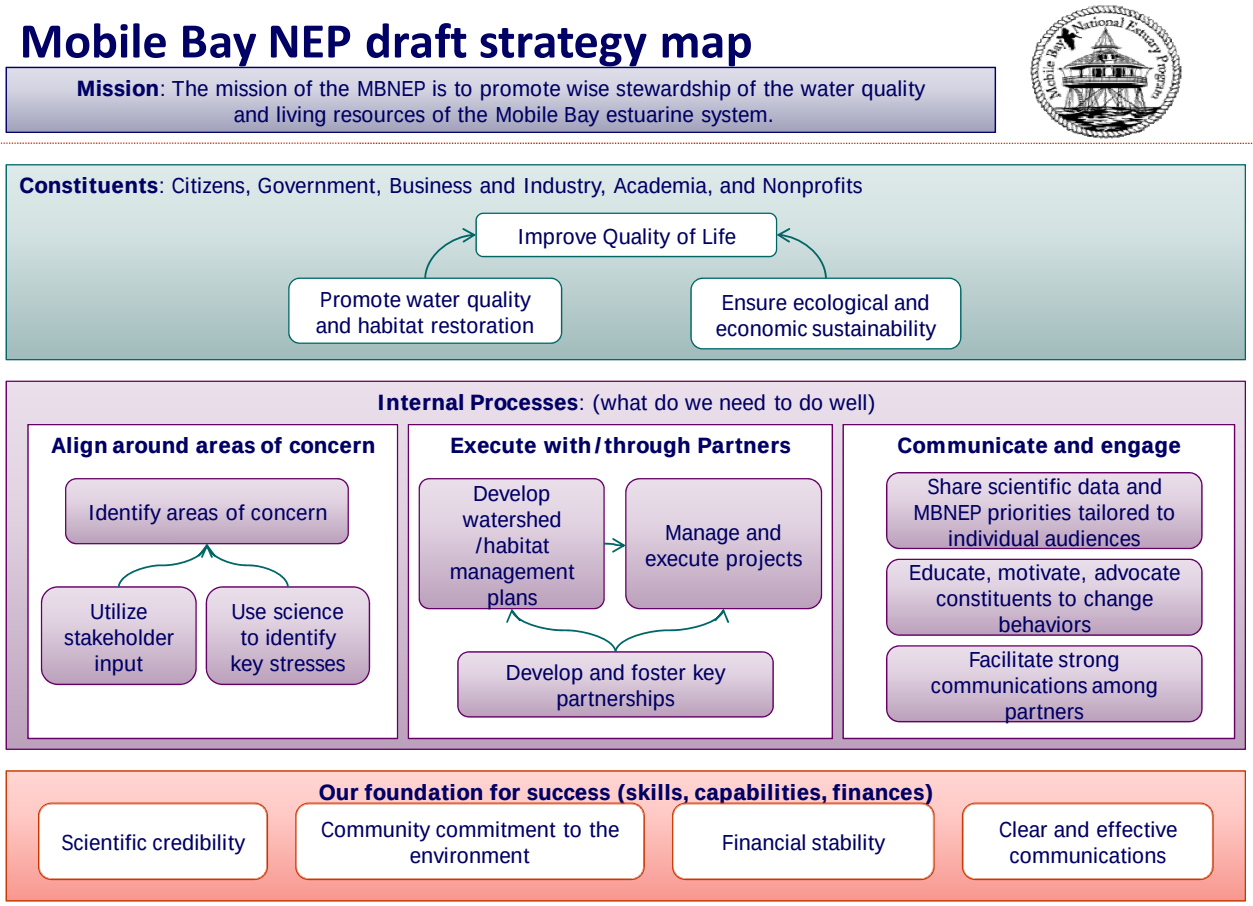
Purpose: The MBNEP brings together an engaged and diverse community committed to integrating environmental health with community and economy to develop consensus on what our ecosystem priorities are, how to achieve them, and how to facilitate/promote their implementation.

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.



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.

PIR: 1. ADMINISTRATION AND INDIRECT COSTS

Project Number	PIR1401	
Title	Program Administration	Indirect Costs (15%)
CCMP Objective	MPA	
Purpose	Develop standardized mechanisms for planning, financing, and tracking activities	Leverage resources to streamline program implementation
Performing Organization(s)	MBNEP	DISL
Outputs/Deliverables	Improved financial tracking system; new time allocation system	28.2% unrecovered administrative costs contributed to program as non-Federal share from DISL
Outcomes	Improved program management and administration	
Clean Water Act Relevance		
Year 1 (2013-2014)	$ 524,245 (revised)	$ 104,424
Year 2 (2014-2015)	$ 515,030	$ 102,388
Other Funding	$ 68,500	
Total	$ 1,107,775	$ 206,812

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; 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.

STAFFING PLAN

Position	Employee	Responsibilities	Main Activities
Program Director	Roberta Arena Swann	General Oversight, Acceptance, and Implementation of Program	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 throughout the community; Oversees all office activities.
Watershed Protection Coordinator	Tom Herder	Conducts restoration projects and educational activities	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	Overall business and office management	Maintains budget, project files, financial record keeping, grant reporting; coordinates logistics and promotional materials for educational outreach and special events
Community Outreach Coordinator	Kelley Barfoot	Coordinates Public Outreach and Education Programs	Manages distribution of public information including press, website, social media, outreach materials; prepares program activity reports for grantors/public; other
Community Relations Manager	Rick Frederick	Develops private sector investment in CCMP strategies/ priorities	Develop and implement an engagement strategy to advance the goals and objectives of the MBNEP. Foster relationships with decision-makers, community leaders, and elected officials to support efforts that will sustain estuarine resources and improve water quality. Encourage stakeholders to engage via financial contributions, group activities, and improved business practices to ensure a clean water future.
Coastal Basin Clean Water Partnership Facilitator	Christian Miller	Non-Point Source Pollution Specialist	Works with communities to develop watershed management plans and implement initiatives of the Alabama Clean Marina Program and the Alabama Clean Water Partnership

TRAVEL

The above administration amount includes $12,500 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.

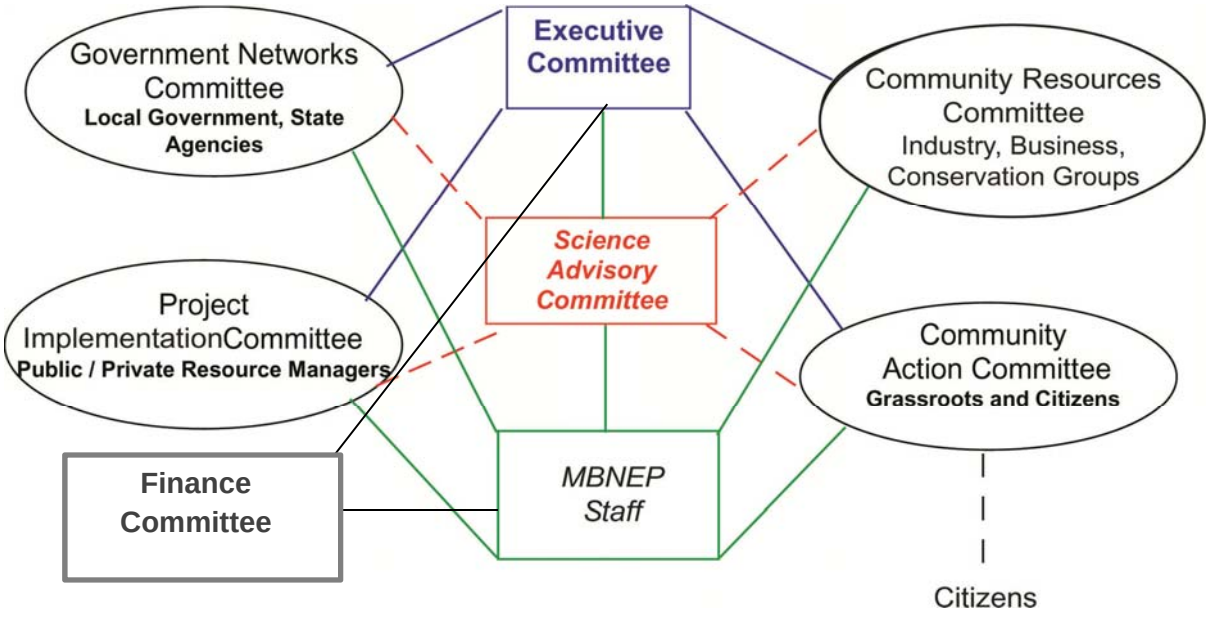
Indirect Costs are charged at a rate of 15% on all cash expenditures (grant and matching funds) of the MBNEP by Dauphin Island Sea Lab. DISL allowable Indirect Cost negotiated rate with Federal Government is 43.2%. The un-recovered indirect of 28.2% is provided to the MBNEP by DISL/MESC as an in-kind 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. At present, MBNEP is managing one EPA grant in the amount of $2,822,600 with an expected completion date of September, 2014. EPA funding in the amount of $538,000 has been budgeted in this workplan.

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 $540,324 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 and the creation of a strategic assessment of priority habitats. The MBNEP recently completed a $239,925 GOMP grant to support a real time water quality monitoring throughout Mobile Bay.

COASTAL IMPACT ASSISTANCE PROGRAM (CIAP)

The Energy Policy Act of 2005 (Public Law 109-58) was signed into law by President Bush on August 8, 2005. Section 384 of the Act establishes the Coastal Impact Assistance Program (CIAP), which authorizes funds to be distributed to Outer Continental Shelf (OCS) oil and gas producing States for the conservation, protection and preservation of coastal areas, including wetlands. The CIAP legislation appropriated $250 million per year for fiscal years 2007 through 2010 to be distributed among eligible producing States and the coastal political subdivisions. The State of Alabama is one of six states eligible to receive CIAP funding. In addition to Alabama, other CIAP recipient states include: Alaska, California, Mississippi, Louisiana and Texas.

The Alabama Department of Conservation and Natural Resources (ADCNR) was designated as the lead agency for development and implementation of the CIAP. The State Lands Division provides primary day-to-day management of the program for the ADCNR and has coordinated closely with the coastal political subdivisions in development of a CIAP Plan. A CIAP Plan must first be approved by the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) prior to receiving CIAP funding for any

specific project identified in the Plan. The United States Fish and Wildlife Service (USFWS) took over the management of the CIAP program on October 1, 2011.

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 of Alabama will receive $58,731,606.00. The Baldwin County Commission will receive $14,130,187.62 and the Mobile County Commission will receive $17,494,523.30. This funding will be utilized to implement projects outlined in the CIAP Plan.

The State of Alabama, Baldwin County Commission, and Mobile County Commission developed the State of Alabama CIAP Plan for FY 2007 and FY 2008 as well as the State of Alabama CIAP Plan Amendment for FY 2009 and FY 2010.

MISSISSIPPI ALABAMA SEA GRANT CONSORTIUM (MASGC)

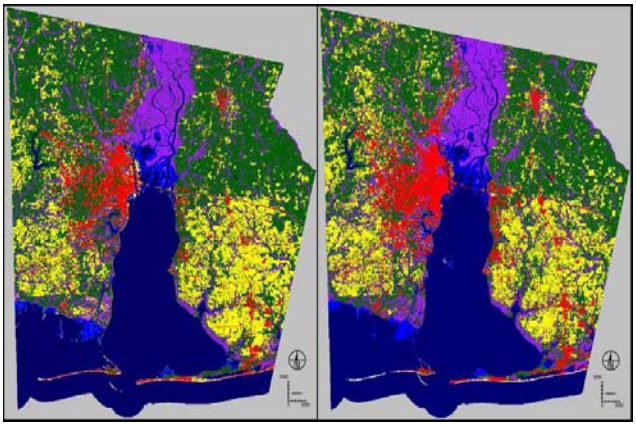
The Mississippi Alabama Sea Grant Consortium is dedicated to activities that foster the conservation and sustainable development of coastal and marine resources in Mississippi and Alabama. Sea Grant is NOAA's primary university-based program in support of coastal resource use and conservation. The MASGC 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. Approximately $200,000 in external NOAA grant funding has been received to implement priorities of the CCMP.

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.



1974 vs. 2008

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

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

Because ADCNR has a long term interest in Alabama's Coastal Resources and the statutory responsibility for the conservation, management, and protection of these resources through its State Lands Division, Marine Resources Division, Wildlife and Fresh Water Fisheries Division, State Parks Division and particularly through the Alabama Coastal Area Management Program, it has entered into a memorandum of agreement to provide annual funding to MBNEP as part of its non-Federal match requirement, as an investment toward implementation of the CCMP. MBNEP has received $658,000 over the past nine years and will receive $88,000 per year of funding for 2014-2015. At present we are currently managing three five year projects funded by ADNCR: Coastal Marine Spatial Planning and Habitat Restoration Planning ($264,300) of which $6,000 per year is 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	Funding Amount
2008-2009	$89,000.
2009-2010	$81,709.
2010-2011	$79,258.
2011-2012	$79,258.
2012-2013	$76,088.
2013-2014	$76,088.

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:

Local	***2013-2014***
Baldwin County	
Mobile County	35,888
City of Mobile	25,920
City of Daphne	10,000
City of Spanish Fort	
City of Fairhope	5,000
Other Cities	

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.

PART TWO: ONGOING PROJECTS

MBNEP ACCOMPLISHMENTS 2013

The mission of the Mobile Bay National Estuary Program is to promote wise stewardship of the water quality and living resources of the 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.

DURING THE 2012-2013 PROGRAM YEAR, MBNEP demonstrated its ability to collaborate with numerous partners. Thirteen grants from eight different organizations were active including two grants from the U. S. EPA Gulf of Mexico Program, six grants from Alabama Department of Conservation and Natural Resources, one grant from Alabama Department of Transportation, and two grants from U.S. Fish and Wildlife Service. Match funding for the MBNEP annual U.S. EPA award was received from the State of Alabama, the Alabama Department of Conservation and Natural Resources and several Mobile and Baldwin County municipalities, totaling $205,396. In total, the MBNEP managed over $2,200,000 to conduct 36 projects affecting the water quality and living resources of Mobile Bay. In addition, MBNEP was awarded two grants under the National Fish and Wildlife Foundation Gulf Environmental Benefit Fund: $6.7 million to undertake restoration in the D'Olive Watershed and $2.05 million to create marsh, stabilize the shoreline of the tip of Mon Louis Island, and prepare a watershed management plan for the Fowl River Watershed.

1. RESPECT THE CONNECT: A FIVE YEAR PLAN FOR PROTECTING COASTAL VALUES

After two years of compiling input from over 1,000 citizens and 30 different scientists, MBNEP published a Draft five-year plan that addresses community values and captures consensus among stakeholders about the estuary's most critical management needs. The plan is based on protecting the six things that citizens value most about coastal quality of life: Access (to water and open spaces), Beaches and Shorelines, Fish, Heritage/Culture, Resiliency, and Water Quality. This draft plan will be accompanied by five year strategies for measuring status and trends, undertaking ecosystem restoration, building community capacity, and increasing citizen stewardship to improve the status of freshwater wetlands, streams and rivers, and intertidal marshes and flats of coastal watersheds (the habitats identified by the Science Advisory Committee as most stressed).

To determine which actions should be included in the CCMP, MBNEP hosted a workshop in November, 2012. Six teams – one for each of the identified common coastal Values – each captained by local experts with ten to twenty community leaders, resource managers, and experts, convened to 1) identify desired outcomes and barriers to their realization, 2) identify at least five actions that are specific, measureable, realistic and time-bound that relate to the stressors and drivers identified in the first step, and 3) discuss and recommend implementation strategies. A list of over 140 actions was compiled from this effort. MBNEP posted the draft of the CCMP for public comment and asked citizens to prioritize the actions identified at the workshop for further development of five year strategies. The comment period closed on March 1, 2013.

Determining a process for prioritizing coastal watersheds in need of restoration or conservation fell to MBNEP's Project Implementation Committee. Initially, the wide range of environmental projects proposed in reaction to the Deepwater Horizon incident and subsequent passage of the RESTORE Act were compiled/consolidated into a single list. A Working Group was appointed with the goal of determining a framework for watershed prioritization. This group collected data sets relevant to prioritization of watersheds on the 12-digit Hydrologic Unit Codes (HUCs)-scale. Of the forty-eight 12-digit HUCs in the two county area, the "first cut" included only those watersheds containing at least two of the three habitat types determined by the SAC to be the most stressed. Data were presented and 24 watersheds reviewed at a public meeting, where attendees voted to determine where attention and resources should be focused.

2. MEASURING STATUS AND TRENDS

Mobile Bay Real-Time Monitoring

With continued funding (7th year) from the Gulf of Mexico Program in 2013, water monitoring sites at Meaher Park, Dauphin Island, Weeks Bay, and Mobile (Middle) Bay continue to provide real-time data that can be viewed at www.mymobilebay.com. That website also contains 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 particularly pertinent to shipping interests. Data is also available from Weeks Bay and Grand Bay through the NOAA National Weather Service Hydrometeorological Automated Data System. The My Mobile Bay website will ultimately be connected to a larger network of stations as part of the Gulf Coast Ocean Observing System with research reports, maps, and other information available to the public.

Dog River Watershed Sediment Study

In December, 2012, the Geological Survey of Alabama completed a characterization of land use, erosion, and sedimentation in the Dog River Watershed to identify sources of sediment and to establish baseline data and sedimentation rating curves that can be used to evaluate future changes in erosion and sediment load transport. This monitoring project assessed suspended and bed sediment transport rates in 10 monitoring sites in selected tributaries of Dog River. Monitoring was based on precipitation and resulting stream discharge and included basic field acquired physical and water quality parameters as well as sediment. These data will be used to determine impacts of land use change, to focus resources in areas of greatest need for remedial action, and to assist municipal and state erosion and sedimentation inspection programs.

Biological Condition Gradient Development for the Mobile Bay Estuary

The MBNEP Science Advisory Committee, with assistance from Barry Vittor and Associates, is undertaking identification of both indicators of biological condition and representative indices of anthropogenic stress to construct a biological condition gradient for the Mobile Bay Estuary. The SAC will focus on indicators related to the provision of ecosystem services by the three most stressed habitat types to calibrate biological condition. NASA and other partners are currently investigating methods of representing both biological condition and stress via remote satellite imagery.

Mobile Bay Hydrological and Water Quality Model

In partnership with the U. S. EPA Region IV and ADEM, MBNEP facilitated an update of the existing Loading Simulation Program (LSPC), Environmental Fluid Dynamics Code (EFDC) and Water Quality Analysis Simulation Program (WASP) that have been applied to the Mobile Bay watershed and water body for

the purpose of developing Total Maximum Daily Loads. Models were updated through 2011 to incorporate new datasets. The current model was developed by Tetra Tech and released in December, 2012. These models will ultimately be used to make management decisions for Mobile Bay and are intended to be built upon based on agency needs.

Healthy Watersheds Initiative

In partnership with the U. S. EPA Headquarters, MBNEP is undertaking scoping effort that works collaboratively across agency and organizational partners to develop an integrated assessment of watershed health using existing data across the Mobile Bay watershed. This information will be used to develop a strategic approach to maintaining, protecting and improving the high quality components of the watershed that currently support Bay health and strategically preventing and restoring degraded areas that exist within a systems context. The strategic approach outlined here will provide a valuable framework for planning and stewardship outreach strategies. Understanding the current state of health throughout the greater Mobile Bay watershed will allow for strategic implementation of protection and restoration efforts. By strategically coordinating protection and restoration efforts across agencies and organizations, there is greater potential for successful environmental outcomes.

3. ECOSYSTEM RESTORATION AND PROTECTION

D'Olive Creek Watershed Restoration

With restoration of the unnamed, head-cut tributary to Joe's Branch and downstream wetlands (funded by a Clean Water Act Section 319 Grant) substantially completed, the project moves into further phases of restoration. With $6.85M secured through a grant from the National Fish and Wildlife Foundation – AL Gulf Environmental Benefit Fund 2013, continued restoration of substantially degraded tributaries in the D'Olive and Tiawasee Creek and Joe's Branch Watershed will be undertaken to "stop the bleeding" and mitigate impairments resulting from stormwater runoff. Upstream retention measures are currently being implemented by the City of Spanish Fort and planning begun to complete the restoration of the Joe's Branch subwatershed.

Mon Louis Island

The western shore of Mobile Bay, impacted by erosion and degradation of its shallow water and intertidal habitats that provide nursery grounds for fish and shellfish and promote benthic biodiversity, remains a primary target of restoration. This erosion stems not only from the effects of periodic tropical weather events, but also from chronic impacts like prevailing winds and ship wakes, with the northern end of Mon Louis Island particularly vulnerable to catastrophic degradation. MBNEP has secured $2.05M in funding to restore the vulnerable north end of the island at the mouth of East Fowl River to its 1979 footprint, to fund a Geological Survey of Alabama investigation of sediment loading and dynamics, and to develop a comprehensive watershed management plan for the Fowl River Watershed to identify potential restoration and protection projects to elevate this system to "conservation" status.

A Request for Qualifications for an engineering/planning firm to generate detailed designs and specifications for installation of a habitat-friendly, shoreline stabilization project for the northernmost 1000-foot Mobile Bay shoreline was issued in July, 2013. Thompson Engineering was selected and contracted to develop the design, which is currently in progress. Upon completion of design, a Request for Bids for construction will be issued and a contractor selected.

Prichard's Jackson Reading Park/Eight Mile Creek

MBNEP was awarded a National Fish and Wildlife Foundation Five Star Grant to restore a first order tributary that borders Prichard's Jackson Reading Park in the Whistler Community as an initial implementation activity prescribed by the Watershed Management Plan for the Eight Mile Creek (EMC) Watershed,. This creek conveys stormwater from a drainage area north of St. Stephens Road past the Park and downstream to Eight Mile Creek, which was listed on the State's 303(d) list for impairment by pathogens. Partners from Auburn University (Landscape Architecture Department and Alabama Cooperative Extension System [ACES]) co-

developed an engineering plan for the stream restoration and oversaw construction by the City of Prichard Public Works Department in early November, 2012. MBNEP and the Coastal Alabama Clean Water Partnership installed water lines and oversaw a community planting to install almost 3,000 native emergent and riparian plants in and around the stream bed. Partners also included the Prichard Environmental Restoration Keepers and Mobile Baykeeper, who coordinated volunteer clean up and planting efforts. The restored stream will provide habitat for a broad diversity of wildlife and aquatic organisms and an educational venue to connect school-aged students to environmental assets where they live. Educational signage provides an overview of the project, the ecosystem and the watershed.

Steele Creek Lodge Shoreline Restoration, Satsuma, AL

The City of Satsuma received technical assistance and $10,000 from MBNEP to purchase materials necessary to address erosion and undercutting along the western shore of the embayment off of Bayou Sara, where Steele Creek Lodge and municipal boat ramps are located. In August 2010 Dr. Bret Webb of the University of South Alabama investigated the site and provided conceptual recommendations for restoration within that limited budget. The City selected the creation of a perched terrace and in 2012 installed a rock sill composed of class 1-2 riprap with a crest located an average of six feet from and along the 150-foot impacted shoreline. Clean sand was placed behind the sand fill on geo-fabric to create a terrace at a depth between MLW and MHW with an area of approximately 900 square feet. This area was planted by Satsuma High School ROTC Students with native emergent plants of species and diversity similar to those found at an existing marshy area adjacent to the boat ramps.

Restoration of Three Mile Creek Watershed, Mobile, AL

In response to community concerns and following efforts to 1) Clean Up the Bottom and 2) restore the historic stream bed of Three Mile Creek, MBNEP over $250,000 for the development of a Watershed Management Plan for Three Mile Creek. Dewberry won the contract for WMP development, and an initial draft, conforming to the EPA's nine key elements and including adaptation planning for climate readiness is in production.

The Creek, which until the mid-twentieth century was the water source for the City, has been degraded or challenged by urban stormwater runoff, invasive species (i.e., island apple snails, Chinese Tallow/Popcorn Trees, alligator weed, etc.), trash and litter from city streets and parking lots, limited public access, impaired water quality (nutrients and pathogens), and environmental justice issues. The confluence of stakeholder support and resources (University of South Alabama, Mobile Infirmary, USA Medical Center, USA Children and Women's Hospital, Mobile Gas/Sempra, Scotch Gulf Lumber, and the Alabama State Port Authority), political jurisdiction (watershed includes portions of five Mobile City Council Districts and all three Mobile County Commission Districts), and environmental justice issues(watershed includes five public housing developments) make Three Mile Creek and its watershed an extraordinary opportunity to turn what is now a community liability, due to its degraded condition, into a community amenity similar to "river walks" in other American cities. The vision for this transformation, derived from a series of public meetings hosted by the MBNEP, includes construction of bicycle, running, or walking trails connecting a linear series of parks and green spaces, restoration of hydrology to the Creek and its surrounding wooded wetlands, enhanced paddling and ecotourism opportunities, and improved water quality and fish and wildlife health, resulting in enhanced community health and civic pride and increased property values.

Local Ecosystem Restoration Partnership

In 2011, MBNEP solicited proposals from Baldwin and Mobile counties and coastal municipalities for projects related to stormwater management; wetlands restoration, protection, enhancement, or creation; and sediment management. Six projects received awards ranging from $15K to $82.5K, and project completion was expected by September 30, 2013. Project summaries follow:

- **The City of Daphne** was awarded $15,000 to support the establishment of Low Impact Development Policies to supplement the newly adopted City Subdivision Regulations and to provide alternatives to

traditional stormwater management practices. The Daphne City Council approved the LID ordinance on Monday, June 24, 2013 by a vote of 8-1.

- **The City of Chickasaw** was awarded $20,000 to construct 300 feet of boardwalk and 1,000 feet of gravel trails allowing public access and providing public education through interpretive signage in the park. It also involved debris removal and eradication of invasive species to improve wetland function. Construction, wetland improvement, and installation of signage are complete.
- **The City of Orange Beach** was awarded $27,500 to address stormwater management and wetland restoration by altering the contour of the east Highway 161 right-of-way to create a serpentine wetland system that will greatly improve the receiving waters of Cotton Bayou. Additionally, interpretive signage will be installed along a pedestrian and biking trail that runs through the project area. With an extension approved, construction is pending.
- The City of Orange Beach was awarded $30,000 to analyze usage along soon-to-be-improved Canal Road and design a plan to provide for expanded traffic usage in a way that promotes stormwater infiltration, minimizes the use of impervious pavement, and is both pedestrian and bicycle friendly. With an extension approved, plan completion and adoption are pending.
- **The City of Fairhope** was awarded $50,000 to develop a management plan for the Volanta Gully subwatershed and to implement at least two projects recommended in that plan. Following a transparent process that included public input, the WMP was completed. (http://www.mobilebaynep.com/images/uploads/library/Volanta_Gully_ Watershed_Management_Plan.pdf) The City implemented three projects: Installation of best management practices and drainage improvements at City ball fields, parking areas, and dog park; installation of best management practices and drainage improvements at the City's Jasmine Park, and drainage improvement as demonstrations near the intersection of Central Boulevard and Westley Streets as match to MBNEP funding.
- **The City of Foley** was awarded $82,500 to address/reverse impacts of urban development on Wolf Creek by restoring the stream and floodplain to natural condition. This project will provide more and improved habitat for increased species diversity, implement urban watershed management practices, and serve as an example of holistic watershed restoration. The grant period has been extended to allow establishment of vegetation.

3. EDUCATION, OUTREACH AND CAPACITY BUILDING

Coastal Alabama Clean Water Partnership

As host to the Coastal Basin Clean Water Partnership Facilitator, one of eight throughout the State, 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, including how rain barrels contribute to water quality protection, replenish groundwater sources, and reduce the use of potable water. During the past program year:

- Seven workshops were held in Mobile and Baldwin Counties in Alabama and Jackson County, MS with a total of approximately 110 barrels constructed.
- An abstract and poster were presented at the 2012 Bays & Bayous Symposium in Biloxi, MS, highlighting the Coastal Alabama Rain Barrel program
- As part of the implementation of the D'Olive Watershed Management Plan, which recommended the establishment of a residential rain barrel program to raise public awareness of area stormwater issues, a concerted effort is being made in Daphne and Spanish Fort, AL.
    - Two rain barrel workshops were held in Daphne, with assistance from the Cities of Daphne and Spanish Fort.
    - One Low-Impact Development demonstration site was established in Spanish Fort.
        - A demonstration site was installed at 5 Rivers Delta Center consisting of a 250-gallon cistern, rain barrel, rain garden, and educational signage acknowledging project partners
- Rain barrels were donated to support several area projects.

- One rain barrel was donated to each Phillips Preparatory School and Spanish Fort Middle School. The barrels are used to teach students about water conservation.
- Two rain barrels were donated to the Dauphin Island Park and Beach Board for use in a migratory bird station.

Estuary Corps
Estuary Corps was established by MBNEP, who joined forces with the Alabama Coastal Foundation, and DISL's Discovery Hall to engage youth in activities that explore and improve the Mobile Bay estuary system. The purpose of Estuary Corps is to promote the wise stewardship of the water quality and living resources of Alabama's estuaries through education, volunteer experience, and career path guidance. In its second year, the program operates at Phillips Preparatory School and Spanish Fort Middle School and the Boys and Girls Club of Cody Road. Students from all three programs engaged in water monitoring activities under the supervision of Alabama Water Watch using AWW kits and protocols, constructed rain barrels, conducted recycling collections on their campuses and participated in the Take Pride in Toulminville cleanup. Tree and native plant plantings have also been undertaken.

Alabama Current Connection
The Alabama Current Connection is a joint newsletter published by the Alabama Department of Conservation and Natural Resources, State Lands Division – Coastal Section and the MBNEP to highlight current projects, Management Conference activities, and other issues of interest to local residents. Two newsletters were published for distribution as hard copies as well as in electronic (PDF) format.

Educational Kiosks
The same Gulf of Mexico Program grant that funded production of two educational videos also funded the creation of three educational kiosks developed by Hamline University in St. Paul, MN. The three kiosks include presentations in English and Spanish targeted to a middle school audience. Their goal is to impart knowledge about critical issues of the Gulf of Mexico while raising public awareness about basic watershed concepts and motivating behavior change related to activities that impact the environment. The kiosks, currently located at 1) the Weeks Bay National Estuarine Research Reserve in Fairhope, AL, 2) the Barataria-Terrebonne National Estuary Program, and 3) the Museum of Science in Corpus Christi, TX, are available to educational venues in the five Gulf States.

IMPLEMENTATION PROGRESS

Attached:

Year 1& 2 (2014-2015) Budget Overview
Overview & Narrative Status
Contracts with Local Entities (2013-2014)
Special Events: Detail