



Mobile Bay  
National Estuary  
Program

CCMP Work Plan  
Year 12

Fiscal Year 2008



prepared May, 2007

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## **Part One: Program, Accomplishments, Goals for 2008**

## **PREFACE**

This document provides annual financial and task-based information to meet U.S. Environmental Protection Agency National Estuary Program Work Plan requirements. The focus of this Work Plan continues to be the implementation of the Comprehensive Conservation and Management Plan (CCMP), approved by USEPA on April 22, 2002.

On June 3, 2005, Suzanne Schwartz, Director of the Oceans and Coastal Protection Division of the Environmental Protection Agency (EPA) issued guidance for the development of the FY 05-06 Work Plans and related reporting requirements. This guidance applies to FY 08 work Plans as well. New assistance agreement policies include:

***EPA Order N. 5700.7-- Environmental Results under EPA Assistance Agreements***

This order ensures that EPA assistance agreements are results-oriented and aligned with EPA's strategic goals, such that, all annual Work Plans be aligned with the goals and objectives of EPA's Strategic Plan and the Governments Performance and Results Act; included well-defined outputs an, to the maximum extent practicable, well defined outcomes.

***EPA Order No. 5700.5A1- Policy for Competition and Assistance Agreements***

In the event that Mobile Bay National Estuary Program competes for a portion of its CWA Section 320 funds, it must comply with all Competition Order requirements.

***EPA Order No. 5700.8- EPA Policy on Assessing Capabilities of Non-Profit Applicants for Managing Assistance Awards***

This pre-award order establishes controls for determining the administrative and programmatic capability of non-profit organizations applying for EPA assistance agreements and enhances post-award oversight of those agreements. The pre-award order applies to all awards to non-profit organizations made on or after March 31, 2005. There is a \$200,000 threshold above which a pre-award review for administrative capability is required.

This is the Twelfth Annual Work Plan for the Mobile Bay National Estuary Program (MBNEP). It describes the work items to be carried out for Fiscal Year 2008 under grant # CE96456906-0. It also includes continuing tasks that are part of prior grants (# CE 97491303-2) as well as projects funded through other external grant sources.

The FY2008 Plan is the second year of a three year EPA grant. This Work Plan provides for tasks that support implementation of actions identified in the Comprehensive Conservation and Management Plan (CCMP). The Management and Program Administration sections support all CCMP Action Plans and the continuance of support for the Management Conference.

The organization of this work plan is designed to allow easy comparison with the MBNEP CCMP Strategic Plan 2007 - 2010. This organization allows a reader to quickly understand how the work items proposed for this year will contribute to the accomplishment of CCMP objectives. A review of the tables included is key to understanding this Work Plan. These tables taken as a whole satisfy the requirements of the funding guidance.

Table 1: Budget Status of Existing Projects provides budget, expenditure and balance information on activities in all open EPA grants.

Table 2: Narrative of Existing Projects provides further detail about those projects that are in progress.

Table 3: New Projects Budget provides budgetary information on projects to be initiated this coming year. Table 4: Local Entity Support provides information on external funds awarded to further activities of the CCMP.

Table 5: Match Sources provides detail information about which activities have generated match and what type of match is expected.

Table 6: Administration Budget provides detailed information on the program office funding for the next year.

Table 7: Travel Summary provides a log of all travel activities of program staff. Finally,

Table 8: CCMP Activities by Cost Category breaks funding out by cost categories stipulated by EPA.

The MBNEP Program Office is located at 4172 Commanders Drive, Mobile, Alabama on the Brookley Campus of the University of South Alabama. As of March 1, 2002, the Dauphin Island Sea Lab / Marine Environmental Sciences Consortium (DISL) became the grantee. This change in grantee was made pursuant to the direction of the Management Conference and the particulars are detailed in a three party Memorandum of Agreement between the State of Alabama, DISL and the MBNEP. The activities outlined in this work plan were approved by the Executive Committee of the Management Conference on May 21, 2007 and is available to the public upon request.

## **Mobile Bay National Estuary Program Overview**

### ***Purpose, Goals, Objectives***

The Mobile Bay National Estuary Program's (MBNEP) mission is to lead the wise stewardship of water quality and living resources of the Mobile Bay and Tensaw Delta. Established as part of the Clean Water Act and funded by the US Environmental Protection Agency, MBNEP serves as a catalyst for activities of estuary stakeholders, helping to build community based organizational capacity for sound resource management and leveraging commitment and investment to ensure the estuary's sustainability.

MBNEP's purpose is to encourage a community-based approach to watershed management by empowering citizens, grassroots organizations, government agencies, and educational establishments to work together to address local environmental challenges. MBNEP's objectives are to engage these groups in the development of a comprehensive conservation and management plan (CCMP), act as a catalyst to leverage greater funding for the implementation of this CCMP and other sustainable estuary activities, and to educate the communities surrounding the estuary about the how to best treat the Mobile Bay and its surrounding watersheds to ensure their protection and conservation for our lifetime and beyond. MBNEP works within a set of guiding principles to maximize its effectiveness in promoting estuary health.



***Those that live it know it-*** Those citizens, fishermen, boaters, scientists, hunters and others have a unique insight into the environmental challenges we face, what works, and what doesn't. This plan capitalizes on their insight.

***Economic opportunities must be available-*** Our coast is an economic engine, creating well over three billion dollars in wealth for our state each year through such activities as trade through the Port of Mobile, commercial fishing, tourism, hunting and coastal homebuilding. This plan incorporates economic impacts and promotes smart growth practices where ever and when ever possible.

***Environmental Stewardship efforts depend on each other-*** The Mobile Estuary benefits from the efforts of many diverse partnerships, collaborations, consortiums and associations. These groups of disparate interests come together, in part through the MBNEP's watershed based management process; to develop comprehensive solutions to challenge that threaten the estuary's sustainability. This plan promotes this "watershed based management" cooperation, acknowledging the need for multiple purpose programming.

***It happens in the river, in the sea, and on the street-*** Involvement of citizens in carrying out environmental activities aimed at improving the Bay and its watersheds is paramount to ensuring the long-term health and vitality of the Mobile estuary. This plan encourages citizen input, involvement, and education, recognizing that ultimately, 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.

Both in the analysis of data and the development of this Work Plan, MBNEP has remained acutely aware of the budget constraints under which the State, Counties, and municipalities must operate. To this extent, the priorities and activities have been formed to give maximum weight to feasible projects.

## ***Federal Resources***

### **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. The allocation for the Year 12 Work Plan (2007-2008) is \$418,000. This second year of funding will be added to the Year 11 of \$492,000 for a total of \$910,000. EPA requires that this total allocation be matched with non-federal dollars in a 1:1 ratio, or an additional \$910,000 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 combined total amount of resources that will be available to further implement the CCMP will be valued at \$1,820,000 for Year 12.

### **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.

### **Coastal Impact Assistance Program (CIAP)**

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

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

The State of Alabama will receive funding from this program in the amount of \$16,600,000/yr, Mobile County will receive \$4,950,000/yr and Baldwin County will receive 3,990,000/yr for the next two fiscal years. MBNEP is currently working with county governments as well as the Alabama Department of Conservation and Natural Resources- Coastal Section to identify and



develop projects, including a restoration project along the Dauphin Island Causeway, extensive improvement to Heron Bay Cutoff, and a comprehensive restoration of Little Lagoon.

### **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.

### **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. In 2003, MBNEP received funding for derelict crab trap removal and creation of shellfish habitat (\$42,981), in part used to support oyster gardening. In 2004, MBNEP received a Five Star Grant (\$9,100) to further support our oyster gardening program. A Five Star Grant in the amount of \$23,000 is currently pending to fund an SAV Gardening project in Little Lagoon.

### **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 has 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. USACE has requested Section 204 funding to continue to implement the Isle of Herbes restoration. A combined planning and design report, valued at over \$80,000 was completed for the DI Causeway Restoration and USACE has secured \$439,000 to begin construction. However, due to a lack of suitable material and cost prohibitive staging issues, the funding has been transferred to the Isle of Herbes project. 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. 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 \$240,000 (\$60,000 per year) for the past four years and anticipates a continuation and potentially an increase of this funding stream. In addition, through its various divisions, ADCNR has provided funding for Habitat Mapping, workshops, newsletters, Isle aux Herbes Restoration Planning, DI Public Access Feasibility study, wetlands status and trends and others on the order of \$340,000 to date. MBNEP is currently under contract to produce an SAV status and trends report that will be complete by June, 2008.

### **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. MBNEP has been in negotiation with State Officials to investigate the possibility of adding a line item in the State budget through the auspices of the Dauphin Island Sea Lab. These negotiations are ongoing and are being met with positive responses by the legislature.

### ***Local Resources***

#### **Municipalities/Counties**

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. At present MBNEP is cultivating Spanish Fort, Dauphin Island, Gulf Shores and Foley.

City of Mobile	\$ 32,000	City of Daphne	\$ 3,000
City of Fairhope	\$ 3,000	Mobile County	\$26,500
Baldwin County	\$17,000		

#### **Private Funding**

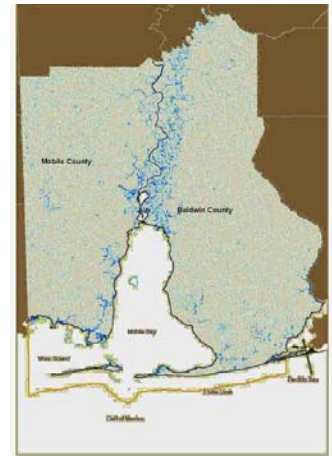
During the Year 12 program year, MBNEP anticipates developing a stronger private sector funding based on recommendations of the newly established Finance Committee. The goal of this committee is to raise \$150,000 from private sources as a local investment (match) toward the implementation of the CCMP. During the 2006-2007 program year, MBNEP received \$7,645 in private donations, including \$5,000 from the Coastal America Foundation. Other contributors included Alabama Power, AMEC, Ecosystems, and Holcim, Inc.

#### **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 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 environmental 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.

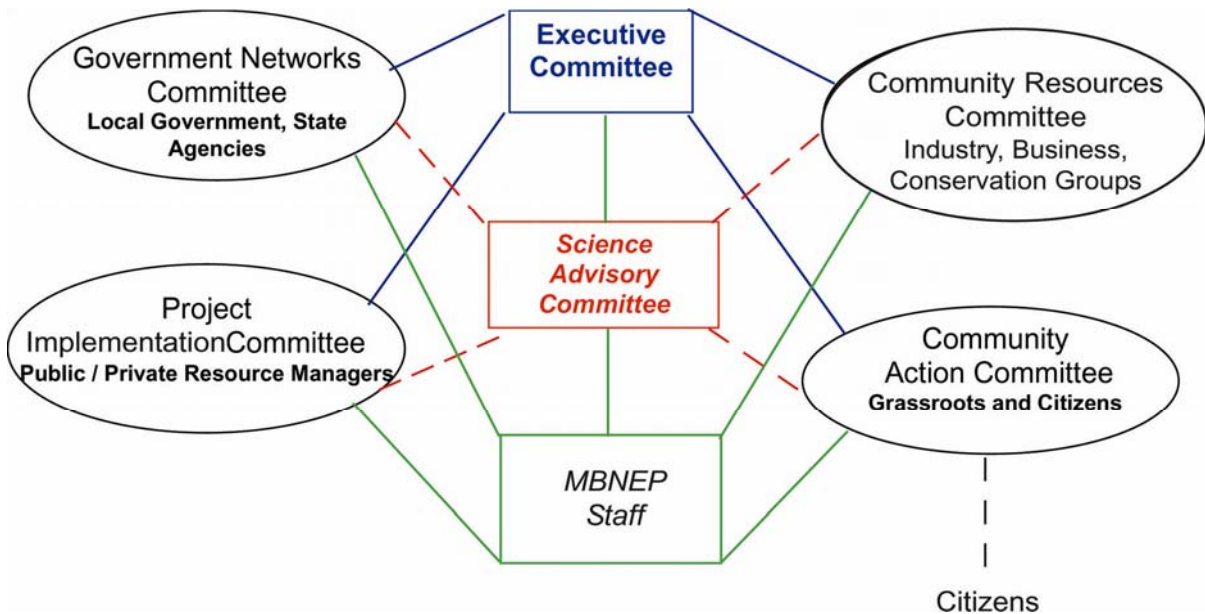
### ***Geographic Distribution***

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 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 boarder. Major waterways include the Tombigbee, Tensaw, Appalachee, Blakeley, Escatawpa, Mobile, Alabama, Dog, Fowl, Fish, Magnolia, Bon Secour and Perdido rivers; the Chickasaw, Norton, Three Mile, and Eight Mile, creeks; and the inter-coastal waterway, Wolf and Perdido Bays, and Little Lagoon.



### ***Community Partnerships: 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 comprised of representatives of environmental grassroots organizations who work together to network, share information, develop issues, and provides cooperative training.

The Community Resources Committee brings together a balance of interested community leaders from industry, business, environmental services, and the non-profit sector 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.

A 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. An Executive Committee – made up of representatives from each of the four main committees, an EPA Region IV representative, a representative from the Science Advisory Committee, and a minimum of 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 for non-federal share.

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.

## **MBNEP Accomplishments 2006-2007**

### ***Program Accomplishments and Transferable Success Stories 2005-2006***

The Mobile Bay National Estuary Program has officially closed out its EPA Grant covering activities for the first seven years of funding. It is currently managing one other NEP/EPA Grant. This grant combines Year 8 (FY2004), Year 9 (2005) and Year 10 (2006) (Grant #417). It is anticipated that this grant will be closed out by June 2008.

Steady and substantial progress is on going for these grants and expenditures are maintaining pace with progress. Due to the fact that the MBNEP staff is currently working on projects identified in both work plans, the following section, Programmatic Goals Achieved during 2006-2007 will address both grants. The Mobile Bay National Estuary Program had some notable successes this year. These include:

### **Strategic Planning**

During the past program year, MBNEP completed strategic planning to focus its limited resources on areas of the CCMP most critical to sustaining the estuary and to develop the organizational structure necessary to best implement action. With a goal of revitalizing efforts already underway to implement the CCMP, MBNEP worked with stakeholders to revisit CCMP objectives and action plans, evaluate gaps in implementation and develop a strategy that included priorities for implementation, updating of objectives, and modifications to the CCMP as needed. The MBNEP boundaries were approved for expansion by the Management Conference as a result of the Strategic Planning Process and now include the entirety of Mobile and Baldwin Counties. This fits much better with many of the resource agencies we work with in coastal Alabama.

Currently in draft form and available for comment, the Strategic Plan will be officially approved in the coming months by the newly established Executive Committee. The Year 12 Action plan is consistent with the priorities established in that strategy. An executive order will be requested to institutionalize this management structure.

### **Water Quality**

*Sub-Estuary Monitoring* MBNEP continues its commitment of support to monitoring activities throughout the estuary. Through a contract with the Alabama Department of Environmental Management, water quality assessments of five sub-estuaries along the perimeter of Mobile Bay are being undertaken. ADEM monitored for parameters including but not limited to in situ water chemistry, turbidity, ammonia, DRP (ortho-phosphates), chlorophyll a, and pathogens. In addition sediment sampling was conducted for approximately 15 metals of concern, PAHs and pesticides. During the 2006 program (funded under a separate grant) the Bon Secour Estuary was completed and the Bayou La Batre Estuary monitoring began.





During the 2007 period, the Bayou La Batre Estuary monitoring was completed, and monitoring began in Dog River.

*Real Time Monitoring* During the 2007 program period, a major accomplishment was the re-establishment of the real time monitor of hydrological and meteorological conditions at Meaher Park, completed after its destruction during hurricanes Ivan and Katrina. This site is now up and running and information generated can be viewed at [www.mymobilebay.com](http://www.mymobilebay.com). This website, in development, will be connected to a larger network of stations as part of the Gulf Coast Ocean Observing System. Information to be made available to the public will include research reports, maps, and other information.

*Eight Mile Creek* The MBNEP made strides in moving forward on a project to identify potential and actual pathogen inputs to segments of Eight Mile Creek and Gum Tree Branch. During last program period, ADEM collected two geo-means during the months of December and January. Data from these monitoring activities showed that all problems/exceedences were found in the Gum Tree watershed or in the mouth of Eight Mile Creek. During last period, problems were encountered with the collection of information including- number of septic systems, storm and sewer pipe systems for Prichard and Chickasaw, AL. Efforts to obtain this information were thwarted due to a pending lawsuit against the City of Prichard. During the 2007 program period, managers have developed alternative methods for getting at sensitive information and are confident that the project will continue to move forward. The scheduled completion of this project is December, 2007.

*Coastal Alabama Clean Water Partnership* MBNEP holds a contract with the Alabama Clean Water Partnership to host the Coastal Alabama chapter. This program works toward clean water integrity throughout Alabama through pilot projects and outreach. This award parallels current CCMP activities and provides an opportunity to reach additional stakeholders in our coastal community. The project is part of the State of Alabama's CWA Section 319 implementation strategy.

During the 2007 period, the CACWP held one NEMO workshop for elected officials, created a Juniper Creek working group to remove the creek from the 303(d) Impaired water body list, worked with a developer to help assess a wetland in Orange Beach and recommend strategies for marketing the wetlands as part of a residential development, trained Portersville Revival Community Group in partnership with Alabama Water Watch, and general support of local outreach events.

#### *Regional Storm Water Management*

In March 2004, the City of Fairhope and MBNEP jointly hosted a local workshop by the National Association of Flood and Stormwater Management Agencies (NAFSMA). NAFSMA represents municipal and public agencies responsible for management of stormwater run-off nationwide. Since this time, other municipalities have supported conducting a feasibility analysis and developing an outline plan for creating a regional Stormwater Management Authority in Baldwin County. In 2006 MBNEP assumed a leadership role for organizing and facilitating the Baldwin County Stormwater working Group. In July we placed a



team led by Mr. Andy Reese of AMEC Inc. and Dr. Melissa Pringle of Eco-Systems Inc. under contract to help us: (1) determine the feasibility of a regional authority and, if considered feasible by the participants, how should we organize this effort within the county, (2) educate our local governments on possible mechanisms for creating such a revenue source, and (3) draft the core principles necessary to be included in any enabling legislation for establishment of a storm water user fee funding method for the County and its towns and cities to be put forward by our legislative delegation. Some 26-30 participants worked hard at examining options, playing devil's advocate and joining together to work on these tasks, and coming to a consensus position. The conclusion was that such a utility was not only feasible but that a compelling case could be made for its creation, and sooner rather than later.

The Baldwin County Storm Water Working Group led by MBNEP, includes the Weeks Bay National Estuarine Research Reserve and the Alabama Coastal Foundation, and 12 of the 13 municipalities in Baldwin County as well as the county commission. Municipalities and the county helped fund the study and contributed shares based on their population. To date, 12 of 13 incorporated municipalities in Baldwin County and the Baldwin County Commission have passed resolutions supporting creation of enabling legislation for a regional stormwater utility in Baldwin County. The Baldwin County legislative delegation has introduced a bill in the Alabama legislature in its 2007 regular session to allow creation of a regional stormwater management authority. At this point the bill, HB901, has passed the House and has been introduced in the Senate.

The Baldwin County Stormwater Consortium:

Is a voluntary association of local communities.

Is designed to operate on a regional and watershed basis.

Supports local communities in managing flooding, drainage, and water quality problems associated with stormwater runoff.

Will not supplant or usurp any existing county or municipal or state authority,

Will be funded through a small and equitable user fee.

Is not a governing body but a funding mechanism.

Will do what already needs to be done, not invent new things to do.

Will create a cost saving economy of scale.

Will be governed by local communities and is not an independent layer of government.

The proposed authority will provide watershed stewardship, standards and criteria, regulatory compliance coordination, stream system management, and local stormwater service partnerships and technical assistance.

At present, plans call for the MBNEP to continue working with local communities to work out details of the creation of a viable stormwater entity and educate the public on the need for a regional approach to this emerging environmental problem.

### **Living Resources**

*Historical Fisheries Data Study* During the 2006 program period (funded under a separate grant); a historical analysis of 20 years of fisheries data was completed with a final draft of the report to be published within the next month. The preliminary results of this analysis indicated that there had been no significant change in fish populations throughout coastal Alabama. However, the analysis did suggest additional sampling of brown shrimp and blue crab to confirm trends in their populations.

During the 2007 period, this report was distributed to resource managers. The newly reestablished Science Advisory Committee has been given this study and is reviewing it to recommend further action. Concurrently, a new study is being undertaken by the Gulf Coast Research Laboratory to study fisheries resources in AL and MS (Harriet Perry, Gulf Coast Research Laboratory).

*Oyster Gardening* During the 2006 Oyster Gardening season, 33 volunteers grew over 60,000 oysters which were planted on Boykin and Shellbank reefs in Mobile Bay. In addition, students from Alma Bryant High School chose to work with the Oyster Gardening program as part of a project with Coastal America's Coastal Ecosystem Learning Center at the Dauphin Island Sea Lab. Their project included working with Mississippi Alabama Sea Grant, Auburn University Marine Extension and Research Center (AUMERC) and MBNEP in counting, collecting and deploying oysters. The students assisted AUMERC with placing an additional 50,000 oysters on Boykin Reef and 5,000 on Shellbank reef. Results were showcased by these students on Capitol Hill to a variety of congressional interests and our own congressional delegates as a part of the second annual *National Student Summit on Oceans and Coasts*.



## **Habitat Management**

### *The Mississippi Alabama Habitats Database*

During the summer of 2005, the Mississippi-Alabama Sea Grant Consortium and the Mobile Bay National Estuary Program worked with the Dauphin Island Sea Lab to develop an online habitat conservation, restoration, and enhancement database to track habitat conservation activities in the 11 coastal counties of Mississippi and Alabama thereby establishing a mechanism for tracking data such as 1) habitat projects planned, in progress or completed along the northern Gulf of Mexico, 2) types of habitat conserved, 3) conservation techniques employed, 4) the variety of funding sources used, and 5) the locations of such projects (<http://restoration.disl.org/database>). The database's development, funded by Mississippi Alabama Sea Grant, resides on a Microsoft SQL server managed by the DISL.

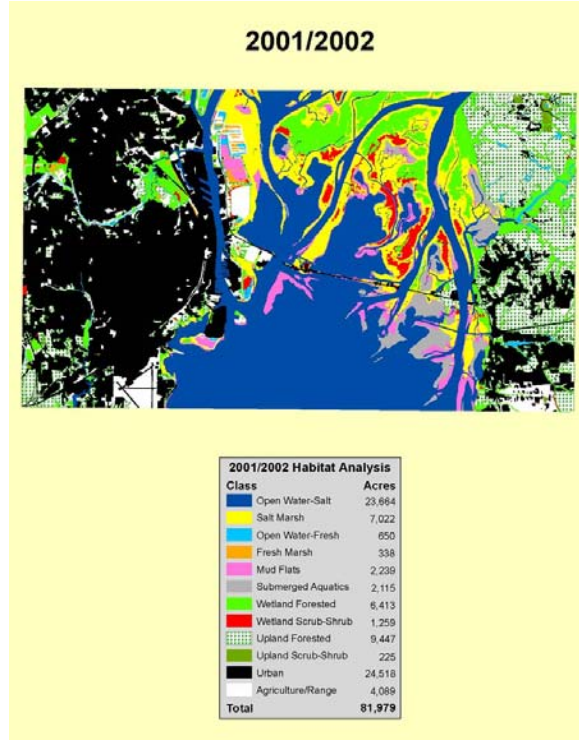


During the 2007 program year, this database was put online for Mississippi and Alabama agency access for data entry. Managed by the Mobile Bay National Estuary Program, it is robust yet simple to use in that registered users may add or modify projects using a simple one-page online form. Any user registered or not may search projects by project name, organization, state, county, habitat type, or conservation method. In addition, an interactive map allows users to rapidly identify project locations. This database is currently being populated to capture over 60 different restoration projects throughout the region.



### *Habitat Mapping*

During the 2007 program period, the National Wetlands Research Center (NWRC) of the United States Geological Survey (USGS) completed the first comprehensive, baseline habitat mapping project describing wetland- and upland habitats for Mobile and Baldwin Counties. The project was accomplished under contract to the Mobile Bay National Estuary Program acting for a partnership that included the ADCNR-State Lands Coastal Section, Gulf of Mexico Program, the Baldwin County Commission, the Mobile County Commission, EPA, and NOAA. These habitat maps were generated from digital color-infrared, geo-referenced photography acquired by the USGS, again under contract to the MBNEP on behalf of the several partners, for Mobile County in 2002. Digital Color, infrared photography from 2001 of the same resolution was provided by the Baldwin County Commission. These habitat and wetland maps will provide information for conservation, restoration, protection, and enhancement of Alabama's coastal habitats. This project also provides the most recent update to the National Wetlands Inventory (NWI) for Baldwin and Mobile Counties. Products from this mapping project provide long needed geographic information system layers for Alabama's coastal counties.



### *Habitat Acquisition*

The State of Alabama's Forever Wild Program purchased a 1642 acre tract of pine Flatwoods in coastal Mobile County adjacent to existing Forever Wild Tracts. It will be used for education, conservation of coastal wetland ecosystems, and research. Although it was purchased with financial assistance from the U.S. Fish and Wildlife Service through a National Coastal Wetlands Grant, the MBNEP provided a letter of support in the early stages of the grant application indicating that this and similar parcels in coastal Mobile County had been identified as priorities for conservation protection in a strategic assessment conducted by the MBNEP. Although the financial commitment by the MBNEP was small (\$10,000), the support of the MBNEP for this tract's acquisition was identified as very important to the success of the grant application.

### **Human Uses**

#### *D'Olive Creek*

Accelerated erosion within the watersheds of D'Olive and Tiawassee Creeks in Daphne and Spanish Fort, Alabama and the increased sediment inputs in D'Olive Bay and Mobile Bay have served as a "poster child" for the impacts of increased storm water run-off and sediment loading in coastal Alabama since the mid-1970s. Due to the negative environmental impacts resulting from its development as one of Alabama's largest subdivisions, the CCMP includes an action to conduct a comprehensive biological, hydrologic, and engineering

study of D'Olive Bay that would develop a stepwise strategy for returning the area to a more natural hydrologic condition.

In late 2005, after recognition that solutions to the problem involved the need for a regional approach, local political and property owner representatives approached MBNEP regarding leadership of a renewed effort to take action. Since then MBNEP has been actively leading efforts to begin the systematic and scientific approach to addressing these non point source issues.

The group now includes NRCS, ADCNR, Baldwin County, City of Daphne, City of Spanish Fort, ADEM, USF&WS, USACOE, members of the Baldwin legislative delegation, Lake Forest Property Owners Association, MBNEP, CACWP and others. A systematic approach to addressing erosion and sedimentation issues associated with three contributing streams as well as the current partially-filled condition of the lake in the Lake Forest subdivision is now well underway. Preliminary results of the bed load sampling are providing new insight into the major contributors to the lake and D'Olive bay. Where previous examinations began and ended with consideration of the impacts on the lake, there is now a widespread recognition that erosion and sediment loading throughout the watersheds of D'Olive Creek, Tiawassee Creek, and even Yancey Branch, as well as the loss of the lake as a functioning retention system, are all contributors to the increased sediment loadings into Mobile Bay. Systematically addressing this larger regional problem will result in solutions for more localized problems such as the lake condition.

Additional results include: ADCNR is funding the Geological Survey of Alabama (GSA) to conduct a long-needed watershed assessment. GSA also stepped up and volunteered to supplement ADEM's assessment with additional streambed analyses, monitoring 13 sites for bedload and suspended load in the watersheds of D'Olive, Tiawassee, and Yancey Branch. Bedload monitoring results to date are already helping target specific areas for restoration and remediation. In addition, several short-term actions are already in progress. The USDA Natural Resources Conservation Service/Baldwin County Soil and Water Conservation District is working through the City of Daphne on several local projects including two in the Lake Forest subdivision for stream clean-out and restoration using funding from the Emergency Watershed Protection Program. These two projects total over \$176,000.

*Coastal Community Planning* During the 2007 period, MBNEP provided technical assistance and funding to the Town of Dauphin Island in partnership with MASGC and ADCNR to assist the Town with the creation of a Long term Strategic Plan to ensure the long-term community, economic and environmental sustainability of the island. The Town has hired SE's, a consultant firm based in Seattle, WA who is in the process of conducting a community driven process for addressing infrastructure; economic opportunities including tourism; housing needs/opportunities; recreation, public access, and beach stabilization; environmental sustainability and smart growth land management and government financing and revenue streams. The plan will be issued in draft form September, 2007.

## **Outreach and Education**

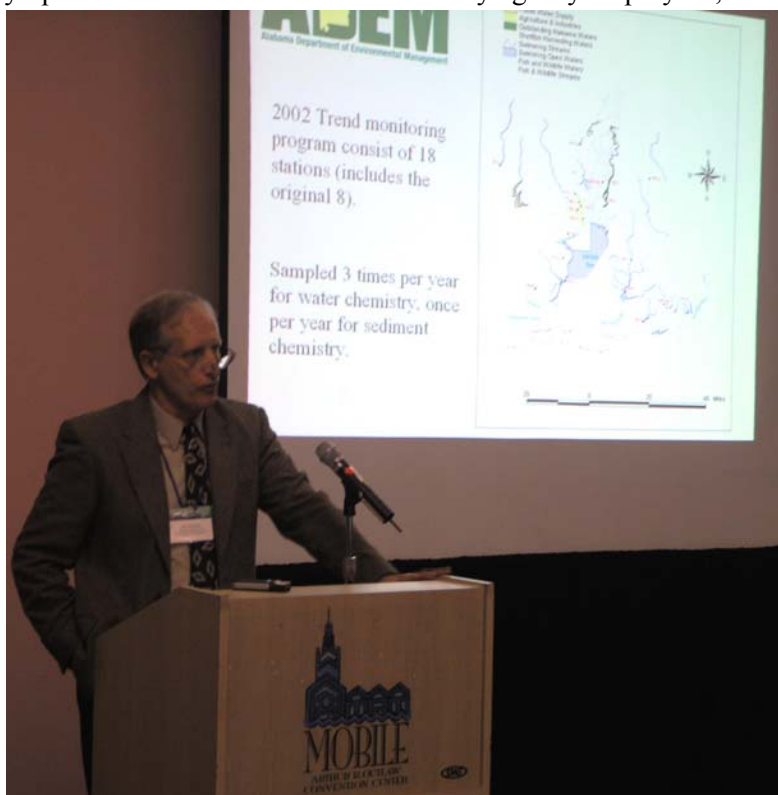
### *Alabama Mississippi Bays and Bayous Symposium*

During the 2007 period, November 28-29, 2006, MBNEP, Mississippi Alabama Sea Grant Consortium, USM Gulf Coast Research Laboratory, and the Alabama Center for Estuarine Studies hosted a two day symposium for over two hundred and fifty agency employees,

researchers, educators, students, consultants, engineers, and community representatives. The purpose of this symposium was to exchange information, data, and ideas on the status and health of the northern Gulf. Guest speakers included Dr. Sylvia Earle, Dr. Nancy Rabalais, Dr. Orin Pilkey, and Dr. Frank Muller-Karger. Oral presentations, categorized by topic into Water Quality, Living Resources, Habitat Management, and Natural Hazards and Coastal

Development. Thirty-seven posters were displayed in the concourse and presented Tuesday evening.

Vendors/Sponsors with displays in the concourse included AUMERC, FEMA, Grand Bay NERR, C. C. Lynch & Associates, MBNEP, NOAA, and Vittor and Associates, Inc. Over 300 scientists, resource managers and community leaders attended this highly successful event.



### *Elected Officials Workshop*

The Mobile Bay National Estuary Program, in coordination with members of the Baldwin County and Mobile County legislative delegations, sponsored an environmental seminar on November 15, 2006. According to State Senator Bradley Byrne (R. Montrose), "Our aim was to develop a common level of understanding among elected officials from both Baldwin and Mobile Counties about the environmental and conservation issues facing coastal Alabama and target specific actions for accomplishment or further development."

The target audience included counties' legislative delegations, County Commissioners, and Mayors. Topics addressed included the tremendous growth and development taking place in coastal Alabama; an issue that has many dimensions. State agency heads responsible for community development, conservation and natural resources, environmental management, transportation planning, and public health attended this event to provide an opportunity for structured dialog between local leaders and state government on issues of local concern. Presenters and participants at the half-day event included: Mr. Jim Clinton, Executive Director of

the Southern Growth Policies Board in Raleigh, N.C.; Dr. Doug Phillips, of the University of Alabama and host and Director of the award-winning “Discovering Alabama” APTV series; and Dr. George Crozier, Executive Director of the Dauphin Island Sea Lab. Several other experts, including Dr. John Dindo, DISL; Dr. John Valentine, DISL; and Dr. Kevin White, USA, participated as subject matter specialists.

This meeting represents the beginning what we hope is a continuing dialogue among the elected leaders of our two counties to help maintain both the environmental integrity and the economic vitality of coastal Alabama. Several of the topics discussed are currently being considered in this legislative session by the Alabama legislature.

### *Website Redesign*

During the 2007 period, MBNEP completely redesigned its website into a more user friendly site with improved organization and navigation. Designed by Melissa Mills of the Dauphin Island Sea Lab Information Technology Department with direction from the MBNEP staff, the new site represents a significant improvement towards communicating our message of community involvement in the stewardship of the water quality and living resources of the Mobile Bay estuary. From the home page, a browser can now access the gamut of information related to the MBNEP and its activities. While some features remain, for the short-term, “under construction”, most of the features accessible through the old web page can be found more quickly and with a more finished, aesthetically pleasing presentation. Any page currently “under construction” is very near completion, and as time passes the new site will hopefully improve with the quality of our estuarine resources in coastal Alabama.



**Events** The MBNEP facilitated, organized, and/or participated in a number of events including during the 2007 period including: EarthFest, Coastal Kids Quiz, Discovery Day, Coastal Alabama Birdfest, Derelict Crab Trap Recovery Program, The Dog River Paddle, Baldwin County Groundwater Festival, Environmental Studies Center Open House as well as others. Attendance varied widely from 300 to nearly 5000 participants.

## **Major Goals and Focus for 2007-2008**

### ***Overall: A Watershed Focus***

In continuing the implementation of the CCMP, the MBNEP will begin to focus activities in targeted watersheds in addition to ongoing activities, in an effort to capture comprehensive environmental results. The major target areas are the Escatawpa Watershed, specifically the Big Creek Lake area; and the watersheds for D'Olive Bay, and Little Lagoon, and potentially Three Mile Creek. Each of these areas includes associated water bodies that are currently on the EPA 303(d) list of Impaired Waterbodies.

In addition, MBNEP will continue to support water monitoring within coastal Alabama; institutionalize atmospheric deposition monitoring for mercury and to expand the program to include other federal agencies such as NOAA; look at plume tracking and speciation; complete the Aquatic Nuisance Species Management Plan; pursue legislation that will enable Baldwin County communities to establish a storm-water management authority; continue examining opportunities for improving public access to Alabama coastal waters; complete a wetlands status and trends study as well as an ongoing SAV mapping for Mobile and Baldwin Counties; and work with the members of the Coastal Habitats Coordinating Team to populate an online database to track habitat conservation, restoration and enhancement projects in Mississippi and Alabama. Finally, the MBNEP will continue to serve as a catalyst and advocate for the CCMP action plans in Coastal Alabama.

### ***Water Quality: Targeting Impaired Water bodies***

During the 2008 program year, MBNEP will focus monitoring activities on impaired water bodies in an effort to remove these from the State's 303(d) List. The focus will be on Juniper Creek, Collins Creek, an unnamed tributary in the Bon Secour area, Magnolia River and Little Lagoon and potentially Three Mile Creek in Mobile.

In addition, MBNEP will continue its partnership with ADEM to expand its sub-estuary monitoring program with a focus on Fowl River; will investigate other options for funding Atmospheric Deposition monitoring over the long-term by seeking out opportunities within other public organizations to adopt this monitoring as part of an ongoing program; and will engage in discussions with NOAA as well as other federal agencies to fund examinations of plume tracking and speciation.

### ***Living Resources: An Aquatic Nuisance Species Management Plan***

Over the course of the past year, MBNEP has provided extensive support for the development of an Alabama Aquatic Nuisance Species Management Plan through participation on a Governor's appointed Task Force and its steering committee, assistance with website development, and contractor management. During 2008 program year, MBNEP looks forward to completing this plan for public distribution.

### ***Human Uses: Regional Solutions for Stormwater, Waste Water Public Access***

As noted above, MBNPEP has been leading the process that brought Baldwin County municipalities and county government together to determine the feasibility of creating a regional storm-water management authority. During the 2008 program year, MBNEP will provide ongoing support for building the capacity of such an entity in its early stages.

In furthering its public access feasibility study along the southeastern edge of Mobile County, MBNEP plans to continue examining access to Alabama coastal waters. MBNEP will support the design of public access opportunities including boat launches, native planting, and recreational park development in southeastern Mobile County.

### ***Habitat Management: Wetlands and SAV Status and Trends***

MBNEP will work with ADCNR and USGS to complete a wetlands status and trends poster for the 30 coastal quads as well as undertaking an SAV mapping for Mobile and Baldwin Counties based on the results of a multi-year effort to identify and map submerged aquatic vegetation (SAV) in Mobile and Baldwin Counties for the second time in five years.

For the past year, Mississippi Alabama Sea Grant Consortium has been working with the Dauphin Island Sea Lab and MBNEP to create a Habitat Conservation, Restoration and Enhancement Database to establish a mechanism for tracking habitat projects along both states coasts. MBNEP will work with the members of the Coastal Habitats Coordinating Team to continue to populate this online database and to expand its usefulness by adding more functions to it.

### ***Education and Public Involvement: Catalyzing Action***

In the 2008 program year, MBNEP will continue to improve its website, participate in area events, seek out opportunities to educate public officials about estuary issues, and support educational opportunities that target builders, realtors and others that engage in construction activities along the coast.

## **Part Two: MBNEP Work Plan 2007 - 2008**

## **Overview**

During the summer of 2005, MBNEP initiated a strategic planning process that included an assessment of the original CCMP including its five issue areas: Water Quality, Living Resources, Habitat Management, Human Uses, and Education/Public Involvement; the 29 sub-objectives within those five areas; and the various activities included to implement those sub-objectives. The assessment included modifications, streamlining, and in some instances, deletion of certain actions included in the original document. In addition, the 29 sub-objective areas were prioritized, and target output/outcomes for them were developed. Although this Strategic Plan is currently in draft format, MBNEP anticipates its official adoption by the Executive Committee of the Management Conference this summer. Therefore, the MBNEP Work Plan for 2008 is based on this Strategic Plan.

The MBNEP CCMP identifies its work plan activities within the five issue areas, the 29 sub-objectives, and the actions associated with those objectives. The numbering (i.e., WQ A1.1) for each activity associates with the Strategic plan as follows: WQ- Water Quality, A1- the sub-objective under Water Quality, and .1- relates to the action outlined for that section. This document contains the 29 sub objectives of the Strategic Plan in summary format. The entire document can be viewed at <http://www.mobilebaynep.com>.

### ***Available EPA Funding for the 2008 Work Plan***

#### ***EPA Grants # CE 97491303-2 (417) and CE 96456906-0 (435)***

At present MBNEP is managing two EPA grants:

CE 97491303-2 - This grant covers Years 8 (2004), 9 (2005), and 10 (2006). This grant is significantly underway and is anticipated to be closed out by June of 2008

CE96456906-0 - This grant covers year 11 (2007) and will be amended to cover year 12 (2008) in this Work Plan.

The first table included in the appendix to this document is Table 1: Budget Status of Existing EPA Grants. This table outlines the current budget, expenditures, and existing balances of all ongoing activities from both of the above grants as of 3/30/2007. In large part these balances reflect the execution of multi year projects, including Atmospheric Deposition, Real Time Monitoring, the development of an Aquatic Nuisance Species Management Plan, and ongoing participation in area events.

Table 2 in the appendix, Ongoing Projects (through May, 2007) - Narrative Status, provides an update in narrative form of milestones achieved, any delays that have occurred, and any notable products available related to all projects underway.

During the Fiscal Year 2008/Year 12 the following base funding will be available to implement projects:

(417) EPA Grant CE 97491303-2: Balance as of 4/30/2007	102,085
(417)Matching Funds Available for CE97491303-2	260,923
(435)EPA Grant CE 96456906-0: Balance as of 4/30/2007	281,264
(435)Matching Funds Available for CE 96456906-0	122,517
(435)EPA Grant CE96456906-1: Funding added for 2008	418,000
(435)Match Projected to be available for CE 96456906-1	150,000
Total base funding (including match) available 2008	\$ 1,334,789



## **MBNEP Work Plan: Project Detail 2008**

This section is divided into five main subsections, 1) Water Quality, 2) Living Resources, 3) Habitat Management, 4) Human Uses and 5) Education/Public Involvement. Each subsection is introduced by stating the objective for that issue area. Individual activities are then listed under the appropriate sub-objectives. Some activities may contain elements that contribute to other issue area objectives. The activity is listed under the issue area for which it is most relevant.

### ***I. Water Quality***

Attain and/or maintain water quality sufficient to support healthy aquatic communities and designated human uses by 2010.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
WQ-A1	Assess Data to Identify Water Quality Problems	*Atmospheric Mercury *NPDES Loadings *Sediment Chemistry *Tissue Chemistry *Enterococcus Monitoring *Harmful Algal Blooms *Fecal Coliform *Chlorophyll a *Secchi Depth *Dissolved Oxygen *Light Attenuation	* Increase in understanding of Water Quality Issues *Improved identification of and response to point and non-point sources of pollution that negatively impact water quality *Decrease concentrations of toxic substances	ongoing

### **WQ-A1.2: Real-Time Water Monitoring in Mobile Bay-Continuing**

Performing Organization	DISL
Project Lead	Mike Dardeau
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$ 20,000
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 20,000
Match	donated labor hours
Leverage	GOMP- \$136,000- (\$68,000 x 2 years)
NEP Prior Year Funds	\$60,000
Prior Year Match	
Prior Year Leverage	\$25,000 MBNEP CIAP, \$40,000 WBNERR, \$30,000 USA/ACES Oyster Restoration funding in FY04 for monitoring instrumentation
Related Priority Issue(s)	All
MBNEP Coordinator	Director

This is a continuation of the Water Monitoring Program begun in the Year Seven (FY 2003) Work Plan and funded by CIAP. The Water Monitoring Program consists of developing and implementing a

comprehensive, Bay-wide, water quality monitoring program. It provides an opportunity to collect water quality data over the long term in Mobile Bay and along the Alabama coastline including: 1) new and innovative technologies for real-time monitoring/measurement (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); 2) appropriate information management, processing, and delivery (transmitted data via cellular modem will enter the data management center server and be made available on the internet web site); and 3) real-time communication of information to the public through [www.mymobilebaynep.com](http://www.mymobilebaynep.com) and lab analyzed water samples will be reported in the local newspaper. The 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. During the 2008 program year, MBNEP will investigate the installation of an additional site at a location along the inter-coastal waterway.

**Project Objectives:** Implement a multi-faceted approach for comprehensive water quality monitoring for the Bay and establish additional monitoring sites; establish agreed upon sample collection, handling, storage and analysis protocols for implementing the monitoring plan; collect water quality samples at designated sampling sites consistent with agreed upon protocols; maintain analyses results in a database and report them on a prescribed basis to MBNEP DIMS, ADEM, the general public, or any other appropriate agency, and place them in EPA's Storet water quality data management system.

#### **WQ-A1.2: Sub-Estuary Monitoring- Continuing**

Performing Organization	ADEM
Project Lead	Mark Ornelas
FY 07 NEP Funding	\$ 20,000 (20,000 reprogrammed)
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 20,000
Match	
Leverage	
NEP Prior Year Funds	\$162,500
Prior Year Match	
Prior Year Leverage	\$
Related Priority Issue(s)	All
MBNEP Coordinator	Deputy Director

This program will provide increased funding to ADEM to conduct water monitoring in tributary streams for Mobile Bay as outlined and identified in the accepted MBNEP Monitoring Plan. The amount funded in FY 07 (\$40,000) was reduced by \$20,000 due to budget balances remaining and available for further monitoring activities. These remaining funds will allow the activity to continue without a large amount of additional funding. Monitoring activities have been completed for Bon Secour and Bayou La Batre and are currently being undertaken in Dog River. The funding above be added to the current program balance to monitor Fowl River or other sub-estuaries. This Task is identified in prior year Work Plans as "Monitoring Program Implementation".

**Project Objectives:** Implement the monitoring plan in area tributaries; establish agreed upon sample collection, handling, storage and analysis protocols; use a "probabilistic" sampling scheme to be able to make statements regarding water quality; collect water quality samples at designated sampling sites; maintain analyses results in a database; and report them on a prescribed basis to MBNEP DIMS.

**WQ-A1.5: Air Deposition Monitoring - Continuing**

Performing Organization	National Atmospheric Deposition Program
Project Lead	ADEM
FY 07 NEP Funding	\$ 35,000
FY 08 NEP Funding	\$ 35,000
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 70,000
Match	
Leverage	11,000 (ADEM personnel)
NEP Prior Year Funds	\$109,000
Prior Year Match	Un-recovered but allowable indirect costs (DISL), cash
Prior Year Leverage	ADEM Personnel (Federal) \$33,000 (\$11,000/3yrs)
Related Priority Issue(s)	Living Resources
MBNEP Coordinator	Director

Continue operation of two sites in Mobile and Baldwin Counties for mercury and nutrient monitoring which will complement data gathered at a new NOAA funded site at Grand Bay. These funds support a contract with the University of Illinois and the National Atmospheric Deposition Program to provide chemical analysis of air samples collected at these sites to identify problems related to toxic chemicals and nutrient and/or organic enrichment from various sources to further promote water quality improvements within the MBNEP area. During the 2008 program year, MBNEP will investigate partnership opportunities with the Northern Gulf of Mexico Cooperative Institute to assist with identifying potential collaborative scientists who can share data and local ecological knowledge and sharing data on mercury concentration to further research mercury deposition and impacts on the Bay and coastal water and living resources.

Project Objectives: Maintain the monitoring sites to include sample collection and analysis according to standard protocols. Sampling includes: Ca, Mg, Na, K, NH<sub>4</sub>, NO<sub>3</sub>, Cl, SO<sub>4</sub>, pH, inorganic nitrogen, and total mercury. Report analyses results on a prescribed basis to EPA, ADEM, the general public, and any other appropriate agency through NADP website. As appropriate, deliver this information into the DIMS of the MBNEP.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
WQ-A2	Incorporate Loadings Information Into Non Pollutant Discharge Elimination System	NPDES Loadings	*Improved NPDES *Decrease concentrations of toxic substances	ongoing

MBNEP has no activities planned this period.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
WQ-A3	Maintain Groundwater Quality	*NPDES Loadings *Sediment Chemistry *Fecal Coliform	*Improved groundwater quality *Decrease concentrations of toxic substances *Increase safety of water for body contact	ongoing

MBNEP has no activities planned this period.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
WQ-A4	Ensure Protection and Maintenance of High Quality Waters	*Enterococcus Monitoring *Harmful Algal Blooms *Fecal Coliform *Chlorophyll a *Secchi Depth *Dissolved Oxygen *Light Attenuation	*Increase in # of classified Outstanding Alabama streams and waterways	

MBNEP has no activities planned this period.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
WQ-B1	Reduce Excessive Nutrient Loading Within the MBNEP area	*Dissolved Oxygen *Chlorophyll a *Turbidity	*Improved water quality to sustain aquatic life *Improved management of stormwater	ongoing

#### **WQ-B1.1: Storm Water Management - Continuing**

Performing Organization	Baldwin County Commission/Mayors Association
Project Lead	MBNEP
FY 07 NEP Funding	\$ 22,500 (\$2,500 add reprogram)
FY 08 NEP Funding	\$ 22,500
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 45,000
Match	\$41,650 (Cities, County, WBNERR, AL Coastal Foundation)
Leverage	
NEP Prior Year Funds	\$ 5,000
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	
MBNEP Coordinator	Director

MBNEP will continue to work with local governments in Baldwin County to investigate alternatives for stormwater detention and retention in order to reduce nutrient and/or organic loadings. During the 2007 program year, an assessment of the feasibility of forming a regional stormwater authority was conducted (see “accomplishments” section). This study was followed up with the Baldwin County Stormwater Consortium, or BCSC (representing 12 municipalities, the County, and other stakeholders), generating support throughout the community for enabling legislation to form such an entity.

During the 2008 program year, the BCSC, with assistance from MBNEP, will engage in a coordinated public education campaign to raise awareness of the problem and educate voters about the need for a regional stormwater solution. In addition, the BCSC will continue to define the organizational options, funding, and function recommendations for this new entity.

**Project Objectives:** Coordinate Baldwin County and its cities for the purpose of assessing the feasibility of developing a storm water management authority and act to establish such an entity.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
WQ-B2	Address Upstream Nutrient & Sediment Inputs	*Sediment Chemistry/ loadings *Harmful Algal Blooms *Chlorophyll a *Secchi depth *Dissolved Oxygen *Light Attenuation	*Improve safety of water for body contact *Improve water quality to sustain aquatic life	

MBNEP has no activities planned this period.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
WQ-C1	Reduce Opportunities for Pathogen Introduction	*Enterococcus Monitoring *Fecal Coliform	*Improve quality and safety of water for body contact	ongoing

#### **WQ-C1.1: Impaired Water Bodies- Pathogen Source Identification- NEW**

Performing Organization	ADEM/Private Contractor
Project Lead	MBNEP
FY 07 NEP Funding	\$ 20,000
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 20,000
Match	donated labor, equipment
Leverage	
NEP Prior Year Funds	\$
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	Human Uses
MBNEP Coordinator	Director/Deputy Director

Section 303(d) of the Clean Water Act and EPA's Water Quality Planning and Management Regulations (40 CFR Part 130) require states to identify water bodies which are not meeting their designated use and to determine the Total Maximum Daily Load (TMDL) for pollutants causing the use impairment. TMDLs are the sum of individual wasteload allocations for point sources (WLAs), load allocations (LAs) for nonpoint sources including natural background levels, and a margin of safety (MOS).

Juniper Creek in Mobile County near Fairview, Alabama lies within the Upper Big Creek Sub-watershed of the Escatawpa River Basin. Its use classification is Fish & Wildlife (F&W). Juniper Creek was put on the State of Alabama's §303(d) use impairment list in 1996 for pH. However, pH was removed from the 1998 list because low pH values are due to natural conditions caused by acid clay soils and tannic acid

from decaying vegetation which are typical of coastal blackwater streams. Juniper Creek has been on the State of Alabama's §303(d) use impairment list since 1998 for Pathogens (Fecal Coliform).

Collins Creek, from Big Creek to its source, also lies within the Upper Big Creek Sub-watershed of the Escatawpa River Basin with a use classification of Fish & Wildlife. It was put on the State of Alabama's §303(d) use impairment list in 1996 for pathogens. Of 23 samples collected by USGS between 1996 and 1999, three samples exceeded the 2000 colonies/100 ml single sample criterion for Fecal Coliform bacteria resulting in its placement on the list for fecal coliform exceedances potentially resulting from pasture grazing or on-site wastewater systems. MBNEP's Project Implementation Committee will work with the CACWP and EPA to target one of these streams for pathogen source ID.

As part of a comprehensive watershed planning and action effort, MBNEP will work with Mobile Area Water and Sewer System and the Trust for Public Land to target the Big Creek Sub-watershed in an attempt to improve water quality, incidences of living resources, expansion of public access, and a prioritized land conservation effort. This project is described later in the work plan.

In addition, MBNEP will develop plans to conduct further sampling on an unnamed tributary in Bon Secour, Little Lagoon, and Fish River in concert with EPA objectives of taking action to remove these water bodies from the 303(D) list.

**Project Objectives:** To develop a coordinated strategy and implementation plan for the Big Creek Sub-watershed to improve water quality, incidences of living resources, expansion of public access, and a prioritized land conservation effort; to work with stakeholders so that such a plan is adopted by the local community; to investigate alternative forms of financing watershed activities.

#### **WQ—C1.1: Clean Marina Program- Continuing**

Performing Organization	MASGC/Contractor
Project Lead	MASGC
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$
Match	volunteer labor; donated equipment
Leverage	
NEP Prior Year Funds	\$ 10,000
Prior Year Match	volunteer labor
Prior Year Leverage	
Related Priority Issue(s)	
MBNEP Coordinator	Director/Project Coordinator

Alabama and Mississippi joined other states concerned with water quality by establishing the Alabama-Mississippi Clean Marina Program. This unique bi-state effort is a voluntary, non-regulatory program that promotes responsible marina operating practices in the interest of protecting the environmental resources that support their business. It is led by Mississippi-Alabama Sea Grant Consortium in partnership with many other groups, including ADCNR, Alabama Department of Environmental Management (ADEM), Auburn University Marine Extension and Research Center (AUMERC), Mississippi Department of Marine Resources, Mississippi Department of Environmental Quality, and the MBNEP. The program will help marinas protect the very resource that provides livelihood and enjoyment for the Gulf Coast: clean water. Over time, the Clean Marina program will help to encourage marina operators to use more responsible practices, inform boaters of environmentally sensitive practices,

and create better communication of existing laws by offering recognition for creative and proactive marina operators implementing these practices.

In the program's first year, Alabama designated two marinas as Clean Marinas: Zeke's Landing Marina in Orange Beach (which has since shut down due to hurricane Ivan) and Dog River Marina in Mobile. There were several more marinas in Alabama pledged to work towards becoming a Clean Marina within the second year. However, hurricanes Ivan and Katrina damaged most of these, including those that had the designation already. Likewise, Mississippi had also designated two marinas, the Beau Rivage Marina and The Palace Casino Marina in Biloxi, with additional pledges slated for designation within the next year. Again, hurricane Katrina set these plans back.

Since the hurricane, few have renewed their Clean Marina status. The City of Orange Beach also attempted to require by ordinance that all the marinas in the city participate in this program. However, this was later put on hold since the Clean Marina program is an entirely voluntary activity. Many others are rebuilding their marinas to conform to the Clean Marina standards and barring any major hurricane activity in the next year, the program anticipates designating an additional three marinas. In the interim, the program is conducting an evaluation of its activities to date and potential future directions.

Project Objectives: Recruit 4 new marinas over the course of next year; provide workshops and boater education at least 3 times a year

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
WQ-D1	Assess Problems Related to Sediment Quality	*Atmospheric Mercury *Sediment Chemistry *Tissue Chemistry *Turbidity *Chlorophyll A	*Decrease in concentrations of toxic substances and pollutants in water	ongoing

MBNEP has no activities planned this period.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
WQ-D2	Provide for Safe Disposal of Hazardous Waste	NPDES Loadings	*Decrease in concentrations of toxic substances and pollutants in water	ongoing

MBNEP has no activities planned this period.



## II. Living Resources

Maintain native populations within historical ranges and natural habitat and restore populations that have declined.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
LR-A1	Improving Monitoring of Key Living Resources	*Birds- pelicans, waterfowl, neotropical migrants; *Bottom Dwelling-blue crabs, oysters, flounder; * Mid-Water- largemouth bass, red drum, mullet *Number of osprey, eagles; *Number of species listed on special concern list; *Number of species listed on threatened/endangered list; *Acreage of land converted to alternate use * HABs *Chlorophyll A	*Improve the stability of fish and wildlife populations *Improve the populations of threatened and endangered species *Increased Citizen awareness, accessibility to data, and improved management and coordination of local activities	ongoing

### **LR-A1.5: Data Information Management System (DIMS)- Continuing**

Performing Organization	DISL/Contractor
Project Lead	MBNEP
FY 07 NEP Funding	\$ 20,000 (\$10,000 reprogrammed)
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 20,000
Match	un-recovered indirect charge on DIMS
Leverage	Community Agency funded data set development
NEP Prior Year Funds	\$ 172,178
Prior Year Match	\$67,561; DISL waives administration charge on GIS/DIMS and provides 43% in-kind match, Equipment and hardware provided by DISL; Mobile Bay Watch Water monitoring Database
Prior Year Leverage	
Related Priority Issue(s)	All
MBNEP Coordinator	Deputy Director/Education Coordinator

This activity will involve the continued development of data management systems that capture information from a variety of agencies and activities to provide a basis for the monitoring and status reporting of living resources, water quality conditions, and CCMP activities. Two online databases have been developed: a Habitat Conservation, Restoration, and Enhancement Database is now up and running online. This database contains over 50 different habitat management projects for a variety of agencies. A CCMP Inventory Database is currently under construction to capture CCMP implementation activities community wide. In addition, [www.mymobilebay.com](http://www.mymobilebay.com) provides real time monitoring of meteorological and hydrological parameters of selected locations in the bay and delta. Plans are to develop a water quality monitoring database that will contain information on other water quality monitoring efforts in the bay and throughout the estuary.

**Project Objectives:** Establish web and other electronic linkages to make DIMS accessible; identify Data Management needs and assess methods/organizations and/or technology needed; continue Data Management associated with Environmental Monitoring; continue development of protocols, participate in regional data monitoring activities/organizations.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
LR-A2	Improve Monitoring of At Risk Species	*Bottom Dwelling-blue crabs, oysters, flounder * Mid-Water- largemouth bass, red drum, mullet	*Improve the populations of fisheries resources	ongoing

MBNEP has no activities planned this period.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
LR-B1	Develop Management Plan for Nuisance Species	*Frequency of occurrence of non-native species e.g. crabs, non-native submacrophytes, others	*Improve understanding of the impact of non-native species on the environment *Reduce the populations of non-native species	Initiated

MBNEP has no activities planned this period.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
	Efficiently measure fishing effort			

MBNEP will work with Science Advisory Committee to review additional measures that may need to be taken.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
LR-C2	Increase Fisheries Resources	*Bottom Dwelling-blue crabs, oysters, flounder * Mid-Water-largemouth bass, red drum, mullet	*Improved fisheries resources	ongoing

### **LR-C2.2: Oyster Gardening- Continuing**

Performing Organization	DISL/Contractor
Project Lead	MBNEP
FY 07 NEP Funding	\$ 10,000
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 10,000
Match	volunteer labor; donated equipment
Leverage	
NEP Prior Year Funds	\$ 30,000
Prior Year Match	volunteer labor
Prior Year Leverage	
Related Priority Issue(s)	Habitat Management
MBNEP Coordinator	Project Coordinator

The Oyster Gardening Program is a continuation of an initiative that was started in 2001 as a community involvement activity. Volunteers are trained to grow oysters under piers or in open waters, measure their growing progress and harvest them for placement on Mobile Bay Reefs. The purpose of the program is to teach citizens about oysters and their importance to bay water filtration and habitat creation and to restore relic oyster reefs in Mobile Bay.

During the 2008 program year, MBNEP will partner with Auburn University Marine Extension & Research Center and Alabama's Marine Resources Division to continue recruitment of volunteers and train and provide technical assistance to produce another harvest of oysters to be placed on Cedar Point Reef and on other reefs throughout the bay.

Project Objective: Engage volunteers in growing oysters for reef restoration.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
LR-C3	Manage Recreational and Commercial Fishing Effort	*Bottom Dwelling-blue crabs, oysters, flounder * Mid-Water-largemouth bass, red drum, mullet	*Improved management of fisheries to decrease stresses on recreational and commercial species	ongoing

MBNEP has no activities planned this period.

### III. Habitat Management

Provide optimum fish and wildlife habitat in the Mobile Bay system by effectively preserving, restoring, and managing resources to maintain adequate extent, diversity, distribution, connectivity, and natural functions of all habitat types.

CCMP	IMPLEMENTATION ACTIVITIES (REVISED 2006)	INDICATORS	OUTCOMES	STATUS
HM-A1	Develop a Coastal Habitats Coordinating Team to prioritize conservation habitats and develop programs to encourage preservation.	*Acres of Habitat Protected or Restored *Acres of Habitat by Quantity or Type *Land Use/Land Cover Changes	Increase in the number of acres of unfragmented habitat that serves multiple species of wildlife	Initiated

#### **HM-A1.2: CHCT Habitat Conservation Projects-Continuing**

Performing Organization	MBNEP
Project Lead	TBD
FY 07 NEP Funding	\$ 30,000
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 30,000
Match	\$40,000 cash, land value
Leverage	
NEP Prior Year Funds	\$ 56,742
Prior Year Match	\$ 50,000
Prior Year Leverage	
Related Priority Issue(s)	Living Resources
MBNEP Coordinator	Director/Deputy Director

MBNEP will continue capitalization of a fund to provide non-regulatory incentives for the acquisition and/or restoration of prioritized sites of particular sensitivity, rarity, or value throughout the MBNEP focus area as identified by the Coastal Habitats Coordinating Team. MBNEP will issue requests for proposals or partner with other agencies to conduct habitat restoration projects. Selection of projects will be guided by the habitat/living resource benefit to be derived compared to cost effectiveness of the proposal. The intent of this restoration program is habitat improvement with some degree of permanence (25 years or greater).

Accordingly, guidelines for the USDA WRP or CRP programs may also be considered in project selection. The “permanency” requirement ensures that available funds go to projects that will produce lasting wildlife benefit. Each proposal will be considered on its merit, but strong consideration will be given to those demonstrating matching or leveraged funds, in-kind match and a strong outreach demonstration, and inclusion in the CHCT Priority Habitats Atlas.

During the 2007 program year, MBNEP partnered with Baldwin County to restore a cultural, ecological, and sociological landmark, “The Springs”, in Magnolia Springs, AL. The objectives of this project were to stabilize the existing site from further degradation due on-site erosion and storm water infiltration and restore the wetland, riparian, and stream habitat to its natural state.

The diverse array of coastal wetland and estuarine ecosystems along Alabama’s coast provide numerous ecological and economic benefits, including improved water quality, nurseries for fish, wildlife habitat, flood buffers, erosion control and recreational opportunities. While the sustainability of the Alabama’s coastal wetlands is under increasing pressure from erosion, subsidence, rising sea levels and land development, opportunities exist to protect and restore wetlands, marshes, bayous, and sea grass meadows.

During the 2008 program year, MBNEP will work with the CHCT to identify opportunities to restore a coastal marsh or wetland property.

Project Objective: To engage in restoration activities that reduce the loss in quality and quantity of existing wetlands or restore degraded habitats. Increase wildlife habitat, restoration of coastal watershed, support of Gulf-wide habitat goals, and increased public involvement and leverage.

#### **HM-A1.2: Emergent Grass Restoration- NEW**

Performing Organization	MBNEP
Project Lead	TBD
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$
Match	\$
Leverage	\$ 25,000 (USFWS Grant)
NEP Prior Year Funds	\$
Prior Year Match	\$
Prior Year Leverage	
Related Priority Issue(s)	Living Resources
MBNEP Coordinator	Director/Deputy Director

The loss of marsh in Mobile Bay has been documented in several wetland trend studies. Marsh losses in Mobile Bay were attributed to industrial development-navigation, commercial/residential development, natural succession and erosion - subsidence. Since 1997, the US Fish and Wildlife Service has established marsh on several tidal bars in upper Mobile Bay using a variety of species. The most successful plants utilized to date were hard-stemmed bulrush (*Scirpus californicus*), bull tongue (*Sagittaria lancifolia*) and black needle rush (*Juncus roemerianus*). This marsh establishment project is being implemented to offset previous marsh loss, provide fish and wildlife habitat, absorb nutrients, and trap sediment.

The created marsh will be utilized extensively by waterfowl, including blue-winged teal, mottled ducks, gadwall, shoveler, and widgeon as well as a host of shore and wading birds. Fishery resources will also benefit by the creation of marshes including shrimp, blue crab, flounder, red fish, and spotted sea trout. The proposed project is an important component of the CCMP and supports the North American Waterfowl Management Plan. This project will also have benefits to listed species under the Endangered Species Act including the Gulf sturgeon, manatee, bald eagle, and Alabama red-bellied turtle.

Project Objectives: To establish marsh vegetation in upper Mobile Bay.

CCMP	SUBOBJECTIVE	INDICATORS	OUTCOMES	STATUS
HM-B1	Protect or Restore SAV Habitat	*Light Attenuation *Acres of habitat protected or restored *Shoreline/Riparian changes	Increase acreage of SAV habitat	ongoing

#### **HM-B1.1 SAV Mapping- NEW**

Performing Organization	MBNEP/Contractor
Project Lead	MBNEP
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$
Match	\$104,000
Leverage	
NEP Prior Year Funds	\$ 9,674
Prior Year Match	\$
Prior Year Leverage	
Related Priority Issue(s)	Living Resources
MBNEP Coordinator	Director/Deputy Director

Since 2002 when data were collected to generate this report, no further efforts have been undertaken to map the distribution of SAV in the MNEP study area. The 2002 data were used to document historical SAV distribution in a 2005 report based upon comparisons to digitized, georeferenced aerial photography of areas within the MBNEP study area from 1940, 1955, and 1966. Results from this investigation affirmed dramatic decreases in SAV since the mid-20<sup>th</sup> century. The prominent decline and apparently persistent disappearance in acreage since that time suggests that human activity has altered habitats capable of supporting SAV. Since 2002 increased developmental pressures have significantly impacted Mobile Bay and surrounding waters, so the proposed study will facilitate direct comparisons to ascertain current trends.

During the 2008 program year, MBNEP will, with funding assistance from ADCNR, will undertake a project to gather digital benthic habitat data to document the extent and composition of SAV using the methodology and study area in the two coastal counties as the 2002 study.

Project Objectives: To create a current set of SAV maps that can be used to continue to develop a status and trends of SAV in coastal Alabama.

**HM-B1.1 Little Lagoon SAV Restoration- NEW**

Performing Organization	MBNEP/Contractor
Project Lead	MBNEP
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$ 25,000
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 25,000
Match	Volunteer hours; contractor services or equipment
Leverage	
NEP Prior Year Funds	\$
Prior Year Match	\$
Prior Year Leverage	
Related Priority Issue(s)	Living Resources
MBNEP Coordinator	Director/Deputy Director

The Little Lagoon Watershed (LLW) is located in South Baldwin County and is a portion of the much larger Wolf Creek hydrologic unit, as described by the US Geological Survey. Little Lagoon itself is connected to the Gulf of Mexico by an inlet that is currently maintained by an ALDOT dredging program. It encompasses 20 square miles extending west approximately 17 miles along the Fort Morgan peninsula.

Submerged aquatic vegetation, historically abundant throughout Little Lagoon, has disappeared in recent years. It can be surmised that climate, human usage, and development increases have contributed to its demise. Dr. Just Cebrian of the Dauphin Island Sea Lab has an ongoing project in the Lagoon to restore SAV, including the planting of shoalgrass (*Halodule wrightii*) at the Bon Secour National Wildlife Refuge in Little Lagoon. Although the project initially failed due to stingray holes, it will be revamped using widgeongrass (*Ruppia maritima*), whose leaves, stems and roots are not anchored to the sediment but grow in the water-column loosely attached to the bottom. In this way the problem of sediment bioturbation created by stingray holes and other organisms will be avoided. The location for planting will be the same area in Little Lagoon where the first restoration effort was done. That area is protected from wave action and has excellent water quality conditions for SAV growth. The widgeongrass will be enclosed in stainless chickenwire cages and planted in grids to keep sting rays out.

During the 2008 program year, MBNEP will investigate the possibility of conducting a large scale SAV planting in Little Lagoon based on Dr. Cebrian's research results.

Project Objectives: To conduct a large scale SAV restoration project that includes resident involvement and monitoring.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
HM-C1	Maintain and/or Improve Beneficial Wetland Function	*Acres of habitat protected or restored *Acres of habitat quantity by type *Land Use/Cover Changes *Hydrologic/bathymetric change	Improved wetland functions Increase in habitat for living resources	ongoing



MBNEP has no activities planned this period.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
HM-D1	Assess Beach and Dune Habitat Loss	*Acres of habitat protected or restored *Shoreline/Riparian change trends	Increase in nonfragmented habitats	ongoing

MBNEP has no activities planned this period.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
HM-D2	Regional Sediment Management (previously Determine Impacts of Dredging on Coastal Habitats)	*Acres of Habitat protected or restored	Improved sediment	initiated

MBNEP has no activities planned this period.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
HM-D3	Address Shoreline Erosion	*Acres of habitat protected or restored *Shoreline/Riparian Changes	Reduction of shoreline lost	ongoing

### **HM-D3.2 Boat Wake/Erosion Study- Continuing**

Performing Organization	USACE
Project Lead	MBNEP
FY 07 NEP Funding	\$ 10,000
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 10,000
Match	volunteer hours; contractor services or equipment
Leverage	
NEP Prior Year Funds	\$
Prior Year Match	\$
Prior Year Leverage	
Related Priority Issue(s)	Living Resources
MBNEP Coordinator	Director/Deputy Director

This study will research the extent of shoreline erosion due to boat wakes and other factors, including recent storms, in an effort to quantify baseline erosion rates, and include research on how other states have addressed boat wakes and erosion of natural shorelines. This study will focus on the eastern and western shores of Mobile Bay and will be conducted in partnership with the US Army Corps of Engineers or other agencies.

Project Objectives: Work with USACE to determine scope of study, ensuring a public participation component; complete study; and present to affected communities.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
HM-E1	Prevent Nesting Habitat Decline	*Acres of habitat protected or restored *Shoreline/riparian changes	Increase acreage of nesting habitat for colonial and migratory birds	ongoing

#### **HM-E1.2 Nesting Habitat Creation: Vegetation Restoration Program- NEW**

Performing Organization	MBNEP/Contractor
Project Lead	MBNEP
FY 07 NEP Funding	\$ 3,192
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 3,192
Match	\$10,000 volunteer hours; contractor services or equipment
Leverage	\$ 5,000 (USFWS Restoration grant)
NEP Prior Year Funds	\$
Prior Year Match	\$
Prior Year Leverage	\$ 5,000 US FWS
Related Priority Issue(s)	Living Resources
MBNEP Coordinator	Director/Deputy Director

Little Dauphin Island, part of the Bon Secour Wild Life Refuge System, is a fragile barrier feature along the rapidly developing Alabama Gulf Coast. It is host to a diverse assemblage of beach, coastal dunes and associated uplands, salt marsh, and wetlands at the mouth of Mobile Bay. These habitats support a variety of threatened and endangered species, including the piping plover, sea turtles, and more than 370 species of migratory birds.

During the 2008 program year, MBNEP will work with the Bon Secour Refuge to conduct a dune planting along the eastern end of the island to stabilize sand and promote increased shore accretion to support piping plover habitat and will develop an upland tree planting program that will work with Island volunteers to plant and monitor Refuge identified species of trees to restore migratory bird habitat.

Project Objectives: To restore habitat for colonial and migratory birds on Dauphin Island.

#### IV. Human Uses

Provide consistent, enforceable, regional land and water use management that ensures smart growth for sustainable development and decreases the negative impacts of growth related activities on human health and safety, public access, and quality of life by developing and implementing plans consistent with the CCMP by 2006.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
HU-A1	Develop and Implement Comprehensive Land Use Planning	*Acreage of land converted to alternate use *Acreage of Impervious surface * New road construction *Shoreline modifications/hardening *# of types of development permits	Improved management of human use activities related to land use	ongoing

#### **HU A1.2 Sustainability Planning: Dauphin Island- Continuing**

Performing Organization	Town of DI/Contractor
Project Lead	MBNEP
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$
Match	
Leverage	
NEP Prior Year Funds	\$ 5,000
Prior Year Match	\$ 25,000 Town of DI; volunteer hours
Prior Year Leverage	\$60,000 ADCNR, MASGC
Related Priority Issue(s)	Living Resources, habitat management
MBNEP Coordinator	Deputy Director

Dauphin Island is frequently affected by hurricanes and other major storms. As a barrier island, it is generally thought of as a first line of wave attenuation, breaking the force of the storm before it hits Mobile County coastline. Its real environmental importance goes beyond mainland protection. Dauphin Island forms one geographic boundary of a nationally important estuary which produces hundreds of millions of dollars of economic value to its region and that it is one of 10 globally important stop over sites for North American migratory birds.

In light of hurricanes Ivan (2004) and Katrina (2005), Dauphin Island faces issues of economic sustainability and environmental security. The town has suffered economic instability due to loss of ad valorem tax revenues caused by the complete destruction of more than 10 percent of its housing stock and other property. In addition, this barrier island has major public access issues for residents, tourists and recreational boaters, as well as increasing economic pressures for intensified development patterns.

Due to its location off the coast of mainland Alabama, Dauphin Island is a first line of defense against each storm event that passes over the northern Gulf of Mexico. If the island is to sustain its economic livelihood and environmental relevance, it needs to explore new ways of doing things: primarily through

the adoption of voluntary mitigation such as non-government mandated efforts to make the community more disaster resistant, affordable housing activities, coastal conservation, and diversifying and strengthening its economic base. The proposed strategic planning effort would evaluate the competing demands for public access, environmental conservation, economic development, housing, and cooperative governance that are currently before the community. At the same time, it will examine and evaluate hazard mitigation measures and the geographic importance of this fragile and shifting ecological unit to bound and shelter a nationally important estuary from which many citizens derive their livelihood. The questions to be answered as part of this planning process included:

How can the Dauphin Island Community come together to develop a common vision for the community of what the island should be in 20 to 30 years?

How can the Dauphin Island Community plan for and develop improvements to Island infrastructure that are environmentally sensitive and hurricane resistant?

How can the Dauphin Island Community engage in commercial revitalization and expansion of economic opportunities including tourism and business growth in a way that capitalizes on its community assets?

Can the Dauphin Island Community manage growth through the implementation of Smart Growth concepts sustaining the unique environmental quality of the island, including the beaches, dunes, maritime forest, swamplands and marshes that make the island a special place?

How can the Dauphin Island Community maintain and improve housing diversity so that work force and other affordable housing for island commercial/retail establishment workers will be available?

How can the Dauphin Island Community improve/expand its arts/community/recreational facilities and opportunities and access to the water?

How can the Dauphin Island Community improve provision for social/community services on the island?

Composition of the island is such that we have various entities. How can we better work both independently and interdependently as a community?

Can the Dauphin Island Community better coordinate its governing activities, financing activities and the organizational capacity of the current entities?

During the 2008 program year, MBNEP will assist the Town with the completion of this planning effort.

This planning effort has been lead by MBNEP Deputy Director and represents considerable staff effort. It is another example of the NEP as a community capacity builder.

**Project Objectives:** The objective of this project is to develop a long-term strategy and implementation plan for community development on Dauphin Island. This plan will provide the foundation for building a more hazard resistant community that balances its economic growth with its environmental sustainability.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
HU-B1	Assess Hydrologic Effects of Development Practices	*New road construction * #/types of development permits *303 (D) Listed Streams *# waste water permit violations	Mitigation of impacts related to hydrologic changes due to development	

#### **HU-B1.1 Causeway Studies: TNC- NEW**

Performing Organization	Contract
Project Lead	MBNEP
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$
	\$ 20,000 (Mott Foundation Grant to TNC)
Match	\$ donated labor
Leverage	
NEP Prior Year Funds	\$ 10,000
Prior Year Match	\$
Prior Year Leverage	
Related Priority Issue(s)	Living Resources, Human Uses
MBNEP Coordinator	Director/Deputy Director

The Mobile-Tensaw Delta (Delta) is a freshwater dominated estuarine system at the base of the Mobile River drainage basin. Since 1930, approximately 20 large dams and other water control structures have been built on the Delta's two primary feeder streams – the Alabama/Coosa/ Tallapoosa and the Tombigbee/Black Warrior river systems. Within the Delta proper, a large causeway has sealed off a number of once open bays from immediate contact with the Gulf. These hydrological modifications have potentially altered the hydrology of one of North America's largest, most productive and diverse estuaries on a local- and system-wide basis. It is hypothesized that these modifications have dramatically altered the productivity of ecological communities within the lower Delta via reduced water exchange and altered circulation patterns, changes in nutrient cycling, and increased incidences of exotic and invasive plant species.

In 2004 MBNEP and partners began funding a multi-year study to collect preliminary data assessing potential impacts of the Causeway on altered freshwater inflow and saltwater interchange on the ecology of the lower Delta. The partnership which included DISL, The Nature Conservancy, Alabama Power Company, and Mobile Bay Watch, acted on concerns of altered hydrology of the estuary due to the construction of the long Causeway that connects the west and east sides of Mobile Bay. Since that time a second year of study by Dr. John Valentine of DISL has been funded by the Gulf of Mexico Program (EPA) through Mobile BayKeeper and the Mobile Bay National Estuary Program. The Nature Conservancy also conducted analysis of river flow information collected through these projects. The results of these two studies and first three parts of the Delta/Causeway Study are on the MBNEP website.

In 2007, Dr. Valentine was funded for the third and final year of study, considered necessary to answer questions related to the advisability of changing the hydrology of the lower Delta/upper Bay once again

by increasing openings in the Causeway. This year of study is funded through the Alabama Department of Conservation and Natural Resources, Marine Resources Division. Discussions with Dr. Valentine indicate that additional analysis of habitat, landform, and vegetation change would be useful adjuncts to more fully characterize the impacts of the altered hydrology caused by the Mobile Bay Causeway.

During the 2008 program year, the Mobile Bay National Estuary Program in partnership with The Nature Conservancy (using a Mott Grant) will fund an analysis of vegetation change in the lower Delta using recently completed habitat maps and data provided by USGS to the MBNEP. This one year effort will use vegetation change as an indicator of the impacts of alterations in freshwater inflow and saltwater mixing and its applicability as a possible predictor of certain results that may be expected if portions of the Causeway are re-opened.

	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
HU-B2	Restore Natural Hydrologic Conditions	*Acreage of land converted to alternate use *Acreage of Impervious surface *new road construction *shoreline modifications/hardening *Acreage of functional wetland restored, enhanced, created	Reduction of hydrologic impacts of natural habitats Reduced sediment loadings into Mobile Bay Increased SAV Restoration of function of lake as detention basin	ongoing

### **HU-B1.2 Three Mile Creek Restoration- NEW**

Performing Organization	Contract
Project Lead	MBNEP
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$
Match	\$
Leverage	
NEP Prior Year Funds	\$
Prior Year Match	\$
Prior Year Leverage	
Related Priority Issue(s)	Living Resources, Human Uses
MBNEP Coordinator	Director/Deputy Director

The Three Mile Creek Industrial Canal originates in the extreme eastern portion of the sub-watershed and is a channelized canal, a little over 1 mile in length, emptying northward into Three Mile Creek about 0.5 mile upstream of the confluence of Three Mile Creek and the Mobile River. Water flow in Three Mile Creek has been altered due to a channel modification that was constructed for flood damage reduction and as a result primarily all water flow bypasses a portion of the old channel. Minimal flow entering the original creek channel between Conception Street Road and MLK has altered the aquatic community found in and adjacent to the stream. Minimal flows have reduced water quality in the original stream of Three Mile Creek. The original creek channel currently has minimal to no water flow directed into it.

During the 2008 program year, MBNEP will work with the City of Mobile, the US Army Corps of Engineers, Mobile Area Water and Sewer Service and others to examine feasibility of restoring natural flow in an old streambed and creating a greenway along other portions of Three Mile Creek. TMDLs have already been developed by ADEM for Three Mile Creek.

Project Objectives: Restore a portion of an altered channel back to its natural state.



**HM-B2.3 D'Olive Bay Stream Restoration- NEW**

Performing Organization	MBNEP/Contractor
Project Lead	MBNEP
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$
Match	\$
Leverage	\$ ADCNR/GSA project dollars
NEP Prior Year Funds	\$
Prior Year Match	\$
Prior Year Leverage	
Related Priority Issue(s)	Living Resources, Human Uses
MBNEP Coordinator	Director/Deputy Director

D'Olive Bay has served as the "poster child" for the impacts of increased storm water run-off and sediment loading in coastal Alabama since the mid-1970s. Accelerated erosion within the watersheds of D'Olive and Tiawasse Creek in Daphne and Spanish Fort, Alabama has contributed to this problem. Negative environmental impacts resulting from the development of one of Alabama's largest subdivisions (Lake Forest) have stimulated CCMP actions to address them. The CCMP prescribes a comprehensive biological, hydrologic, and engineering study of D'Olive Bay that would be used to develop a stepwise strategy for returning the area to a more natural hydrologic condition.

MBNEP will continue to provide leadership and resources to the D'Olive Bay/Lake Forest sub-watershed Task Group. This group now includes the NRCS, ADCNR, Baldwin County, City of Daphne, City of Spanish Fort, ADEM, USF&WS, USACOE, members of the Baldwin legislative delegation, Lake Forest Property Owners Association, MBNEP, CACWP, and others. We will support technically and financially (as funds become available) the continued systematic approach to addressing erosion and sedimentation issues associated with three contributing streams as well as the current partially-filled condition of the lake in the Lake Forest subdivision. Systematically addressing this larger regional problem will help us address sediment loadings into a portion of the Upper Mobile Bay and may serve as an exportable model for other communities to use in addressing similar local problems.

The Geological Survey of Alabama (GSA) is conducting long-needed watershed assessment and streambed analyses, monitoring 13 sites for bedload and suspended load in the watersheds of D'Olive and Tiawasse Creeks and Yancey Branch. Early results are identifying areas that may be candidates for stream restoration using Rosgen stability curves and methodologies.

During the 2008 program year, MBNEP will work with local engineers and agencies to initiate stream restoration efforts where deemed appropriate or viable and preliminary planning will be initiated.

Project Objectives: Address erosion and sedimentation of contributing streams to D'Olive Bay and Lake Forest subdivision to reduce sediment loads in upper Mobile Bay.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
HU-B3	Improved Control of Erosion and Sedimentation	*New road construction *Shoreline modification/hardening *turbidity *light attenuation *Sediment loads	Reduction of non-point source pollution	ongoing

No activity currently identified.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
HU-C1	Increase Public Access and Eco-Tourism Opportunities	*Number of types of development permits *Population Growth/Changes *Functional wetland protected, restored or created ****(#'s of people using access points-not identified in workshop)	Increase in the importance of protecting the Estuary and its environment	ongoing

#### **HU-C1.2: Improving Public Access Opportunities- Continuing**

Performing Organization	MBNEP, ADCNR
Project Lead	MBNEP
FY 07 NEP Funding	\$ 10,000 (10,000 reprogrammed)
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 10,000
Match	\$
Leverage	\$
NEP Prior Year Funds	\$
Prior Year Match	\$
Prior Year Leverage	\$ 10,000 ADCNR; \$6,000 Auburn, \$4,000 DISL
Related Priority Issue(s)	Living Resources, Habitat Management
MBNEP Coordinator	Director/Deputy Director

This funding will be provided for the development of public access opportunities including boat launches, native planting, and recreational park development in southeastern Mobile County as identified at a Public Access community meeting held March, 2006. Three different sites will be further evaluated for improvements and at least one site will be improved. These sites include: Heron Bay cutoff, Bay Front Park, both located in south Mobile County and Luscher Park located in the City of Mobile. Additional public access feasibility is planned for Baldwin County sites.

During the 2008 program year, Heron Bay Cutoff will be improved by Mobile County through the CIAP program. In addition, MBNEP will work with DIBS and TNC to investigate the possibility of creating a passive park for bird watching on Dauphin Island.

Project Objectives: Conduct community meetings to identify potential sites for public access expansion, development; hire contractor to develop site designs; and recruit partners to implement.

**HU-C1.2: MAWSS Source Water Protection/Recreational Access Impacts- NEW**

Performing Organization	MBNEP, TPL
Project Lead	MBNEP
FY 07 NEP Funding	\$ 5,000 (add. \$5,000 reprogrammed)
FY 08 NEP Funding	\$ 20,000
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 25,000
Match	\$ \$80,000 (MAWSS projected)
Leverage	\$
NEP Prior Year Funds	\$
Prior Year Match	\$
Prior Year Leverage	\$ 10,000 ADCNR; \$6,000 Auburn, \$4,000 DISL
Related Priority Issue(s)	Living Resources, Habitat Management
MBNEP Coordinator	Director/Deputy Director

J.B. Converse Lake, referred to as Big Creek Lake, is a 3,600 acre, man-made reservoir in western Mobile County, Alabama that is used as a source of drinking water for the city of Mobile, while providing recreational fishing for residents of the local area. The surrounding watershed of the lake is predominantly rural; however, residential and commercial development is anticipated to increase as a result of the construction of new roads and the establishment of a large tourist attraction to the northeast. This increase in development will trigger a potential for water quality changes to the lake in part due to storm-water runoff and an intensification of recreational usage of the lake and its surrounding area.

A Ground Water Protection plan for the Big Creek Lake watershed will provide the means by which area residents, County leaders, Mobile Area Water and Sewer Service, and end users can retain the lake's character, function, and usability, define its value, and establish a blueprint for its protection that addresses the inevitable changes to come by:

creating a sense of "ownership" by involving as many people and organizations as possible,  
identifying all resources needed to manage future challenges and opportunities,  
modeling future scenarios that employ standards set to safeguard and maintain the quality of the water and surrounding lands,  
ensuring that water/land based activities around the lake are undertaken in an environmentally safe manner with negligible negative impact to the surface water source,  
establishes an ongoing monitoring plan to track water quality

During the 2008 program year, MBNEP will work with MAWSS to develop a source water protection plan that addresses expansion of recreational opportunities in Big Creek and its surrounding area.

Project Objectives: To identify current and expanded levels of access within the Big Creek Lake area; to identify conservation priorities of surrounding lands to determine potential water quality impacts; to develop a framework for decision making related to expanding and managing access around the lake; and to identify key information gaps and suggested areas for further study.

## V. Education and Public Involvement

Increase awareness of natural resource issues and promote understanding and participation in conservation and stewardship activities.

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
EPI-A1	Enhance Public Education and Outreach	*# of k-12 teachers who have implemented curriculum units based on completed environmental training *# of adults volunteering for environmental activities/monitoring *# of professionals who have implemented concepts based on environmental training *# of k-12 students who have participated in long term environmental projects at school that pursue advanced environmental education or jobs *# of Environmental Organizations *# of Environmental Activities	Increase knowledge and importance of estuary	ongoing

### **EPI-A1.2: Indicators/Status of the Bay Report- Continuing**

Performing Organization	TBD
Project Lead	MBNEP
FY 07 NEP Funding	\$15,000
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 15,000
Match	
Leverage	
NEP Prior Year Funds	\$9,000
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	All
MBNEP Coordinator	Deputy Director

From time to time, MBNEP produces reports for the public to provide the community with information related to the health of the estuary. In 2005, MBNEP held an Indicators workshop to identify types of data that would, when analyzed, communicate whether our estuary was in good shape or suffering. The workshop produced a list of 51 indicators of estuary health. During the next two years, MBNEP staff has conducted research on these and gathered data currently being collected regarding these 51 indicators from various state and local agencies. Although a significant amount of information has been amassed, there are still many gaps. To assist in making determinations about “status” based on this information, MBNEP has engaged the Science Advisory Committee of the Management Conference to take on the indicators project.

During the 2008 program year, MBNEP in partnership with the Science Advisory Committee will produce a Status of the Bay report, that uses the 51 indicators as a basis for determining estuary health.

Project Objectives: Produce indicator report/publication.

**EPI-A1.2: Government Networks Outreach Support- Continuing**

Performing Organization	MBNEP
Project Lead	MBNEP
FY 07 NEP Funding	\$5,000
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 5,000
Match	
Leverage	\$750 Private Support
NEP Prior Year Funds	\$
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	All
MBNEP Coordinator	Director/Outreach and Education Coordinator

Under its new management structure, MBNEP is establishing a Government Networks Committee that will bring high level state agency officials together with local officials to better communicate local needs/state priorities. This committee will be made up of County Commissioners, Mayors, and State Agency Heads This group would engage in the following:

Discussions of how federal and state agencies can work with local governments to cooperatively address local issues (i.e., storm water management, public access, environmentally appropriate affordable housing, habitat protection).

Education of local officials/other federal/state agencies about how each agency works or what the main issues are at the local level (opportunities for federal and state agencies to present what they do to the group; opportunities for local communities to discuss major issues with state agencies and other communities).

Engaging in constructive dialogue on ways to partner state agencies with local governments or local governments with other local governments to affect positive results.

Cooperatively identifying tasks/role for MBNEP in addressing issues or galvanizing action.

This group will meet alternately in Mobile and Montgomery to ensure the highest attendance. MBNEP will cover costs associated with travel and boarding.

Project Objectives: To bring local officials together with high level state agency personnel to educate about coastal issues and challenges.

**EPI-A1.3: Community Activities and Events/Stewardship Awards- Continuing**

Performing Organization	MBNEP
Project Lead	MBNEP
FY 07 NEP Funding	\$11,500
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 11,500
Match	
Leverage	
NEP Prior Year Funds	\$
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	All
MBNEP Coordinator	Outreach and Education Coordinator

Participation in trade shows and festivals provides regular exposure for the MBNEP and can serve as an additional outlet for distribution of CCMP-related materials. It is also necessary to support other agencies and organizations that perform CCMP related events. Prior support and participation has included Hazardous Waste Amnesty Days, Coastal Kid's Quiz, children's fishing events, and Earth Day.

Project Objectives: Participate in and/or support area environmental events.

Events that will be supported during 2007-2008 will include but not be limited to:

Alabama Coastal Birdfest	3000.00
Dog River Dog Paddle	500.00
ACF Coastal Kids Quiz	500.00
Earthfest	1,000.00
International Migratory Bird Day	500.00
Stewardship Awards	1,500.00
Hazardous Waste Day	1,000.00
Coastal Clean Up	1,000.00
Groundwater Festival	1,000.00
Derelict Crab Trap Removal	500.00
Promotional Materials	1,000.00

**EPI-A1.3:     Quarterly Newsletter Publication- Continuing**

Performing Organization	MBNEP
Project Lead	MBNEP
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$
Match	
Leverage	\$ 6,000 (ADCNR grant)
NEP Prior Year Funds	\$
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	All
MBNEP Coordinator	Science Communicator

**EPI-A1.3: Outreach: Education Initiatives- Continuing**

Performing Organization	MBNEP
Project Lead	MBNEP
FY 07 NEP Funding	\$12,500
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 12,500
Match	
Leverage	
NEP Prior Year Funds	\$
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	All
MBNEP Coordinator	Outreach and Education Coordinator

This fund is being established to work with community groups and educational agencies to develop curriculum units and other continuing education programs that address the water quality, living resource, human use, and habitat management issues and priorities of the CCMP.

Project Objectives: Educate the community about the issues of the CCMP in a coordinated manner; institutionalize the education of environmental issues related to our local area into the school system and other avenues of public education.

**EPI-A1.3: Continuing Education for Professionals: Land Use, Smart Growth-NEW**

Performing Organization	grassroots, inc.; others
Project Lead	MBNEP
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$
Match	
Leverage	\$ 10,000 (EPA Education Grant)
NEP Prior Year Funds	\$
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	All
MBNEP Coordinator	Deputy Director

According to NOAA, an estimated 54 percent of the world's population lives less than 40 miles from the coast and this number is expected to increase. With over 433 miles of shoreline, the Alabama coast and surrounding areas are experiencing increasing rapid land development resulting in large amounts of non-point source pollution. According to the Pew and U.S. Commission on the Ocean Report, this has become an environmental issue of great consequence. Conventional land use practices, including requirements for high levels of paved surfaces, have been identified as contributing to the decline of fragile watersheds from elevated levels of storm water runoff. Impervious cover produces 16 times more storm water runoff



than a forest, causing flooding, erosion, siltation and contamination that increased stress not only on our watersheds but on plant and animal habitat. The **concept** of this activity is to educate land use professionals about the economic feasibility of altering land use practices to reduce storm water runoff and non-point source pollution, in the process becoming better environmental stewards. The **expected outcome** is the adoption, use, and promotion of environmentally sensitive development practices by land use professionals. The target audience includes realtors, developers, land use planners and engineers.

In 2007, EPA awarded a grant to MBNEP to contract with *grassroots, inc.* to develop and launch 1) an online course of “Water Runs Down Hill”; 2) two live workshops for developers, engineers, and public land use planners in the Mobile area; 3) an e-newsletter and website that contain information, a bulletin board, ongoing development highlights, and 4) a site visit bus tour for realtors, developers, engineers, and public land use planners to observe the concepts in the online course implemented in the field.

In 2008, *grassroots, inc.* anticipates continuing the development of its program for land use professionals. Two programs in the planning process are 1) “Don’t Fight the Site” which discusses minimizing non point source pollution through open space planning, better development practices, and utilizing natural features of a site, such as the natural slope and wetlands and 2) a program that will present two model open space projects developed in Wisconsin and Pennsylvania where participants examine the two projects and determine what specific development practices were used to minimize non point source pollution to create each project. Marketing strategies, sales, and resale of the two selected projects demonstrate to participants that environmentally low impact developments are economically successful.

Project Objective: To educate land use professionals about the economic feasibility of altering land use practices to reduce storm water runoff and non-point source pollution as well as other smart growth concepts.

#### **EPI-A1.3: Grasses to Classes- NEW**

Performing Organization	
Project Lead	MBNEP
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$
FY 09 NEP Funding	\$
Total Current Plan Funds	\$
Match	
Leverage	\$ 25,000 (USFWS Grant)
NEP Prior Year Funds	\$
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	All
MBNEP Coordinator	CACWP

The Baldwin County Grasses in Classes (BCGIC) program was started in January 2005 to facilitate the establishment and maintenance of nurseries by Baldwin County school students to grow native plants for submerged, wetland and dune restoration projects. Funding from the Gulf of Mexico Community-based Restoration Partnership allowed the program to expand by providing training for interested teachers and by establishing nurseries at their high schools.

The BCGIC program provides a volunteer base for implementation of restoration projects and promotes student involvement in community-based restoration activities. With guidance from teachers and experts,

the students maintain and monitor the nursery at their school. Students also assist local scientists with monitoring the restoration sites during the school year whenever possible.

In 2006, the BCGIC projects included a dune planting at the Bon Secour Wildlife Refuge- *Panicum amarum*, *Spartina patens* and *Uniola paniculata* was planted by student volunteers on Refuge property; an invasive species removal at the Weeks Bay Reserve- *Phragmites* spp. and replant *Spartina alterniflora* and *Juncus roemerianus* grasses were removed along Weeks Bay; and an emergent wetland plants restoration at Barner Branch- *Vallisneria americana* and other emergent wetland plants were planted.

The BCGIC program promotes individual stewardship and understanding of coastal ecosystems by providing students with meaningful hands-on activities designed to teach investigative and problem solving skills. In recent years coastal habitats in Alabama have been damaged due to storms and/or infestation of invasive exotic plant species. In response to this damage many federal, state, county and city restoration projects have been planned. By raising native plants to maturity and keeping half of the stock for future propagation, the BCGIC program will help defray the costs of restoration projects by providing an inexpensive source of plants as well as a volunteer base to assist with the implementation.

Based on the successful program in Baldwin County, MBNEP has partnered with the Mobile County Environmental Studies Center in 2006 to expand the Grasses to Classes program to the western shore of Mobile Bay. There are three Mobile County Public High Schools participating: Baker and Satsuma are growing Smooth Cordgrass (*Spartina Alterniflora*) and Black Needlerush (*Juncus Roemerianus*) and Murphy is growing Panic Grass (*Panicum Amarum*), Morning Glory (*Ipomoea pes-caprae*) and Sea Oats (*Uniola Paniculata*).

Partners for the Mobile County *Grasses in Classes* Program include the Environmental Studies Center, U.S. Fish and Wildlife Service, Dauphin Island Sea Lab, Weeks Bay NERR, Alabama Coastal Foundation, Alabama State Lands Division, and Mobile County Parks.

Project Objectives: Promote individual stewardship and understanding of coastal ecosystems through community-based restoration activities; Facilitate the establishment and maintenance of native plant nurseries by Mobile County school students; Provide students with meaningful hands-on activities which will provide investigative and problem solving experience; Provide federal, state, and local agencies with plants and a volunteer base for implementation of restoration projects

CCMP	SUB OBJECTIVE	INDICATORS	OUTCOMES	STATUS
EPI-B1	Develop Comprehensive Citizen Monitoring and Reporting Programs	*# of volunteer monitors *# of reports	Increase the # of citizens that are actively engaged in sustaining the estuary	

#### **EPI-B1.1: Community Involvement: CAC Water Testing Program- NEW**

Performing Organization	MBNEP
Project Lead	MBNEP
FY 07 NEP Funding	\$
FY 08 NEP Funding	\$ 3,233
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 3,233
Match	donated labor
Leverage	
NEP Prior Year Funds	
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	All
MBNEP Coordinator	Outreach and Education Coordinator

Citizen volunteers are becoming increasingly involved in monitoring the quality of the waters of Coastal Alabama. From a simple "creek walk" to sophisticated analyses, they evaluate water quality for a host of reasons. For some, it is because they live next to a stream and feel closely affected by it. For others, the monitoring of a stream provides a vital, practical, educational experience. Some groups use monitoring to raise awareness in the community about water quality and how it is influenced by activities and land uses within the watershed.

One of the first activities undertaken by a re-organized Community Action Committee (CAC) in early 2007 was a needs assessment to determine commonalities among its members. . The top three areas of common need identified in this assessment were concern about water quality, improved communication, and assistance with organizational development. Of these three, the group has decided to address water quality issues throughout the two counties by establishing a coordinated, tiered, water monitoring program that can be implemented by grassroots organization volunteers and other citizens. A review of the activities of each of these groups indicates that over half already conduct volunteer water monitoring. However, they have been frustrated by a lack of knowledge or direction of methodology to take that monitoring to "the next level". Other groups have yet to start testing but are very interested in establishing a volunteer water monitoring program in their area.

During the 2008 program year, MBNEP will facilitate the creation of a comprehensive water monitoring program for the CAC. Partners will include Alabama Water Watch, ADEM, Coastal Alabama Clean Water Partnership, and possibly others. The program concept includes the "beginner" groups being trained and learning from those groups already engaged in water monitoring activities. More experienced groups will identify causes and effects of impairments along with potential corrective actions.

The *purpose* of this project is to educate citizens about the water quality issues related to their local watersheds, who will, in the process, become better environmental stewards. The *expected outcome* is the

adoption, use, and promotion of environmentally sensitive practices by citizens to protect their local waters.

The goal of this effort is to increase citizen involvement in hands-on monitoring of local waters as a mechanism for better identification of trends and causes and effects of water quality improvements or degradation.

The *objectives* of this project are to: 1) gather data on a regular basis from targeted sampling sites on water quality parameters including temperature, dissolved oxygen, salinity, nutrients, and bacterial pathogens; 2) establish baseline data and/or reveal trends for local water bodies; 3) provide ongoing information through meetings, training, publications, and web sites; and 4) identify and undertake mitigation efforts to correct negative impacts. The *educational priorities* are to build the capacity of these community organizations to lead water monitoring efforts in their local area and to connect citizens to and educate them about the water resources.

## ***Program Management***

The MBNEP Program Office works closely with all of the MBNEP Management Conference members on initiatives relating to the CCMP. The MPA budget will provide resources for the Program Office to continue program planning, development, implementation, evaluation, and reporting. Staff will provide organizational and logistical support for all of the Management Conference committee meetings and coordinate/communicate 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.

### **MPA: Overall Administration/Travel**

Performing Organization	MBNEP
Project Lead	MBNEP
FY 07 NEP Funding	\$ 462,908 (including indirect charges of \$90,339 and travel of \$13,000)
FY 08 NEP Funding	\$ 442,267 (including indirect charges of \$74,087 and travel of \$13,000)
FY 09 NEP Funding	\$
Total Current Plan Funds	\$ 905,175
Match	\$302,325 un-recovered indirect from DISL
Leverage	
NEP Prior Year Funds	\$962,838
Prior Year Match	in-kind value of truck DISL
Prior Year Leverage	\$5,000
Related Priority Issue(s)	All
MBNEP Coordinator	Director

This has changed due to the addition of a watershed coordinator that will work as a basin facilitator with the Coastal Alabama Clean Water Partnership part time as well as with the Community Action Committee; a substantial rent increase, and salary increases due to evolving job functions. In addition, increased funding has been allocated for the development of outreach products. This amount includes all the necessary items for program administration including salaries, benefits, rent, supplies, equipment, phone, internet services etc.

Indirect Cost charged at a rate of 15% on all cash input (grant and matching funds) to the MBNEP by Dauphin Island Sea Lab. DISL allowable Indirect Cost negotiated rate with Federal Government is 43%. The un-recovered indirect of 28% 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 cases basis.

Indirect costs charged by our host institution to administer the grant are included (\$164,426 which equals 15% of our total projected cash resources of \$1,260,600.)

Staff Position	Employee	Responsibilities	Main Activities
Program Director	David W. Yeager	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.
Deputy Director	Roberta Arena Swann	Conducts activities to identify, design and develop projects that further the implementation of the CCMP	Executes strategic and organizational planning for program; conducts project design, development and implementation; assists with financial resource development and management; oversees CCMP indicator program; prepares EPA plans and reports; prepares contracts with local entities; and other activities as deemed necessary
Science Communicator	Thomas Herder	Communicates scientific data to public and conducts education activities	Translates scientific information for public media; manages program website; assists with volunteer monitoring programs; develops special educational programs that provide for technology transfer; and other activities as deemed necessary
Project Coordinator	Kara Lankford	Develops and coordinates volunteer involvement programs	Coordinates oyster gardening, crab watch volunteer programs, and Clean Water Partnership Program; other activities as deemed necessary
Business Manager	Tiffany England	Overall business and office management	Maintains budget, project files, financial record keeping, grant reporting; coordinates notices, agendas, and logistics for all committee meetings; and other office management duties

**MPA: Travel**

Performing Organization	MBNEP
Project Lead	Director
FY 07 NEP Funding	\$13,000
FY 08 NEP Funding	\$13,000
FY 09 NEP Funding	\$
Total Current Plan Funds	\$13,000
Match	
Leverage	
NEP Prior Year Funds	\$ 48,000
Prior Year Match	
Prior Year Leverage	
Related Priority Issue(s)	N/A
MBNEP Coordinator	Director

Program staff will participate in regional, state, and national conferences and meetings relevant to estuarine management. EPA requires through an earmark \$13,000 of program funds for travel related to outreach and technology and information transfer. Attendance at Association of National Estuary Programs workshops and EPA workshops / meetings will be stressed. The remaining portion of the funds will be utilized as earmarked.