

MOBILE BAY NATIONAL ESTUARY PROGRAM CCMP IMPLEMENTATION REVIEW

May, 2002
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PREFACE

A. Purpose of this Report

The United States Environmental Protection Agency (EPA) bases its continuing funding support upon a thorough evaluation of the **implementation progress** of an National Estuary Program's (NEP's) approved **Comprehensive Conservation Management Plan (CCMP)**. As stated in its guidance document for the report preparation: *"This review of the implementation process also provides an opportunity for an NEP to: (1) highlight successes and strengths, (2) identify and address areas for improvement and (3) demonstrate that stakeholder commitments, as well as community support and momentum are being maintained and increased. The implementation review process also evaluates EPA's progress in carrying out its CCMP commitments and identifies ways that EPA can better assist NEPs individually and collectively."*

B. Review Procedure

In 2000, a Task Force of EPA and NEP representatives determined that even the most recently designated NEPs, **Tier V's** such as the **Mobile Bay National Estuary Program** are required to participate in a full Implementation Review and submit comprehensive documentation on the same set of topics as the Tier I - IV NEPs in their previous reviews.

The MBNEP's Implementation Report is due June 3, 2002. EPA review teams will then evaluate the Tier V NEPs' submission and conduct on-site reviews during June and July, 2002 if feasible, with the entire review process to be completed by August 31, 2002. The results of the 2002 Full Implementation Review will determine Tier V NEP funding targets for FY 2003 - 2005.

C. Report Format

The Mobile Bay National Estuary Program's **Comprehensive Conservation and Management Plan** was just finalized on April 22, 2000. The guidance document for the preparation of the implementation review states *"EPA, in recognition that each NEP may have different areas of emphasis, strengths, and challenges in implementation, acknowledges that some NEP's may have made greater progress on some issues than on others. Nonetheless, EPA requires a program to describe the status of progress regardless of the extent and if appropriate, should indicate any reasons for limited activity."* Accordingly, the following topics are addressed in this report and presented in an outline format:

- Section I. Status of CCMP Implementation (programmatic progress)
- Section II. Environmental Results
- Section III. Resources (funding)
- Section IV. Technical Assistance and Public Education
- Section V. Institutional Coordination and Public Involvement
- Section VI. Overall Program Strengths and Limitations
- Section VII. Feedback on EPA Involvement.

The Appendices will include referenced reports as well as examples of work products.

D. Background of the Mobile Bay National Estuary Program

On September 28, 1995, Mobile Bay was added to the National Estuary Program as a "Tier V"* NEP. The Management Conference participants were established and included a seventeen member Policy Committee (now eighteen), a Management Committee, a Technical Advisory Committee and a Citizens Advisory Committee. (The Technical Advisory and Citizen Advisory Committees have since merged into *Community Advisory Committee*.) The Policy Committee approved the MBNEP Management Conference Agreement on July 30, 1996 officially initiating the process of developing the CCMP.

***Tier V NEPs differed from their predecessors in that they had an accelerated time-frame in which to develop their CCMPs. This approach was justified because a majority of general characterization information had already been collected or was easily achievable, a "framework" was already in place for a working conference agreement, and there had already been considerable thought into prioritizing the estuary's problems.**

Mobile Bay was qualified to be considered for inclusion in the "Tier V" NEP's because a successful coalition-building base had been formed under the auspices of the "Coastal Counties Adaptive Resource Management" partnership (ARM) -- a cooperative effort of the Alabama Coastal Programs, the Dauphin Island Sea Lab, the South Alabama Regional Planning Commission and other entities. The ARM had hosted numerous public meetings soliciting information and ideas regarding better management of the coastal resources while maintaining economic viability within the two county coastal Alabama area. These meetings had produced an identification of significant issues and concerns -- not the least of which was the limitation of existing data to make an accurate evaluation of the condition of the natural resources.

Subsequently, the ARM program developed the proposal to the EPA for consideration of the Mobile Bay and Delta as a Natural Estuary Program. The Mobile Bay and Delta was indeed deemed to be an "estuary of national importance", and the efforts of the ARM qualified for the NEP's "fast track" designation -- Tier V.

A Management Conference was convened with the South Alabama Regional Planning Commission (SARPC) as the grant recipient agency for the development of the Comprehensive Conservation Management Plan effort.

Unfortunately, political pressures negated the gains made during the ARM process, resulting in SARPC withdrawing its permission to be used as grant manager. Additionally a period of confusion evolved as ARM's successful issue identification forums were duplicated and the momentum developed during the ARM process ceased to exist. Similarly, initial personnel performances and effectiveness undermined the spirit of cooperation previously held. During the following year, an extremely competent interim director was secured to salvage the MBNEP and significant progress was finally made towards accomplishing preliminary characterization reports and base line identifications. However, again political pressures resulted in another new Director and staff and, although the Conference community struggled successfully to maintain and proceeded with actions personnel problems continued to plague the program. As a result, the MBNEP was in a "holding pattern" without a director for over a year during what should have been

crucial development stages.

Finally, in 2000, the MBNEP was fortunate to acquire a new Director with practical coalition-building experience and expertise. With a small but committed staff of professionals, a synergy has been created. The Program has now more than recovered from its first (3) years of mistakes and "missed opportunities".

Within the past year, the MBNEP has made the quantum leap many Conference members had begun to think impossible, and successfully completed the ***Comprehensive Conservation and Management Plan (CCMP)*** and the CCMP received EPA Administrator Christine Todd Whitman's approval on April 22, 2002.

The MBNEP has also succeeded in re-creating community confidence in the Program and has developed the State level respect necessary to successfully proceed with protection of the Mobile Bay and Delta. To ensure the continued viability of the CCMP however, it is important to remember the lessons learned from the both the MBNEP's early growing-pain experiences and the "mid-course" corrections that were necessary to bring the Program back to credibility. In continuing to use navigation metaphors, the following are the "true bearings" that, if maintained, will continue the course of the MBNEP through any future "rocks and shoals:"

- Actions to increase public awareness of estuarine problems and active seeking of public participation in consensus building.
- Management options based on the estuary as a holistic ecological unit and promotion of basin-wide planning to manage our living resource.
- Establishment of working partnerships among federal, state, and local governments and organizations to cut across traditional jurisdictions.
- Projects to transfer scientific and management information, experience, and expertise to program participants.
- Utilization of a phased approach: first, identify and define priority problems; second, establish probable causes of the problems; third, devise alternative strategies to solve the problems; fourth, choose and implement the most effective of the strategies.
- Identification of approaches that balance conflicting human uses of the estuary.
- Utilization of collaborative problem solving, to assemble maximum expertise, to broaden the management perspective, and to secure a wide commitment.
- Reliance on existing, previously underutilized data and information combined with critical applied research to fill the knowledge gaps.

SECTION I CCMP IMPLEMENTATION

A. Progress in Implementing CCMP Actions

Progress in implementing the CCMP actions, particularly the priority actions, and whether and how the programs goals are going achieved through those actions. In addition, what if any measures of progress are being used or developed by the program.

The Mobile Bay National Estuary Program Comprehensive Conservation and Management Plan (CCMP) addresses its program goals through priority actions in the following five main issue areas:

Water Quality
Living Resources
Habitat Management
Human Uses
Education and Public Involvement

Although only finalized on April 22, 2002, the MBNEP CCMP has a "head start" towards accomplishing many of its goals and objectives due to the on-going efforts and working relationships among our partner organizations create a synergy beneficial to all. In outline format, a brief description of each priority action designated within the CCMP and its progress or current status follows:

1. WATER QUALITY PRIORITY ACTIONS:

- a. **ACTION WQ-A1:** assesses data to identify problems, if any, related to pathogen introduction, toxic chemicals, and nutrient or organic enrichment from various sources both within and outside the MBNEP area.

STATUS:

A multi-year multi-faceted effort, this priority action is essential to understanding and managing water quality issues in the MBNEP. Numerous tasks are necessary for the development of a mathematical water quality model that will assist MBNEP, EPA and ADEM. Predicting water quality parameters and sediment deposition and movement based on point and non point source (NPS) loadings is an ultimate goal. The water quality model will be used in TMDL assessments and subsequent permitting processes and NPS control plans by ADEM and EPA. Additionally, this information is important for area Chambers of Commerce and their industrial and business recruitment endeavors.

- (1) Tetra Tech Inc., contracted under **Task WQ-A1.1**, has developed a preliminary loadings budget using existing data including total suspended solids, nutrients, and

toxins. Modeling efforts are continuing that will quantify contributions from point

source discharges, upstream river flow, and NPS discharges (including septic systems). Better calibration of sediment load prediction by the model will be emphasized. Tetra Tech has delivered the initial loadings model to the MBNEP. It will be used in TMDL development.

Other modeling efforts are being supported by MBNEP partners, and interesting developments are occurring within the efforts to develop a hydrodynamic model of the Bay which will be very useful in managing pollutant loadings among other things.

Additionally, researchers under ACES grants are modeling ship wakes and wind and waves, the U. S. Navy is developing a hydro-dynamic model (gross scale) as part of its Northern Gulf Littoral Initiative and the U. S. Corps of Engineers is funding additional modeling along with the Gulf of Mexico Program and EPA.

- (2) Monitoring of atmospheric deposition is another focus in response to increasing concerns about macrophytic algal blooms along the Mobile Bay I-10 "Bay Way" and an increase in mercury fish advisories on several rivers and Gulf Coastal waters. As part of task **WQ-A1.2**, the Mobile Bay NEP initiated a National Atmospheric Deposition Program (NADP) National Trends Network (NTN) monitoring site and a Mercury Deposition Network (MDN) monitoring site. There are currently two sites established --one located in Theodore, Mobile County and one in Bay Minette, Baldwin County. The establishment of at least two additional sites are planned with CIAP funding. Data currently being collected are available on the Web site: <http://nadp.sws.uiisc.edu/nadpdata/mdnsites.asp>. Data will be also used in EPA's REMSAD modeling effort and will be included in the MBNEP Data and Information Management System (DIMS) to be housed at the Dauphin Island Sea Lab.

In response to recent intense and increased public concerns about mercury contamination in fish species in Mobile Bay, it's tributaries and Alabama coastal area waters, MBNEP co-hosted **The Mercury Forum**, May 20 and 21, 2001 with Sea Grant, Mobile Bay Watch and the Forum. Among the expert presenters were authors of the two seminal studies on mercury impacts on human population. Over 300 attendees participated and helped draft recommendations.

- (3) The MBNEP has adopted a previously developed *Comprehensive Monitoring Strategy* as a starting point for the MBNEP Monitoring Program Plan. This initial effort involved a contract to Hutchings & Associates, LLC. in Year Three and Year Four and specified interagency cooperation, agency/industry cooperation, volunteer monitoring, and a data management system. To date, the interagency approach has been initiated and the volunteer monitoring coordinators' group has been formed. As **Task WQ-A.3** in the Year Six work plan, MBNEP is proposing in a research and monitoring approach if funding becomes available through CIAP or other sources.

Following the EMPACT paradigm, this effort will provide an opportunity to collect water quality data over a long term in Mobile Bay and along the Alabama coastline by use of technologies for real-time monitoring/measurement: data from single, multi-sensor probes used to measure dissolved oxygen, salinity, water temperature,

pH, turbidity, and fluorescence which will be transmitted to an Internet web site every 15 minutes. The transmitted data (via cellular modem) will enter the Dauphin Island Sea Lab data management center EMPACT server and be made available on the Internet web site and local television stations. The lab analyzed water samples will

be reported in the local newspaper. It is expected that the data collected would greatly assist in determining the designated water use criteria for the State of Alabama and providing baseline readings for 303(d) improvements, and will increase public knowledge of the parameters used to measure water quality. Similarly, this project could increase the public's confidence in environmental knowledge. Increased and enhanced volunteer monitoring, is the second component of the redesigned project.

- (4) Citizens-driven, local watershed (sub-watershed) assessment and management efforts have proven to be valuable means to address the need for consistent collection of water quality data and to foster local education and support of restoration activities. This is especially important as approximately twenty-eight (28) streams (or stream segments) on Alabama's year 2000 303(d) report are listed as impaired primarily because of non point sources of pollution.

Since Year One, members of local grassroots groups such as the Dog River Clearwater Revival in Mobile County and the Weeks Bay Watershed Association in Baldwin County have been participants in the MBNEP development and CCMP process. These watershed groups have also benefitted from technical expertise as well as funding available from MBNEP partner organizations -- principally ADEM, ADCNR Coastal Programs and Auburn Marine Extension and Research Center (AUMERC). **Task WQ A. 4** in the Year Six Work Plan supports assisting the existing watershed groups and supporting the creation of new local watershed groups in their endeavors.

- b. **ACTION WQ-A2:** This priority action will incorporate water quality-based loadings information into the National Pollutant Discharge Elimination System (NPDES) permitting process and non point source (NPS) control planning process to allow attainment of applicable water quality standards. Procedurally, ADEM will develop and issue NPDES permits based on TMDLs, and in conjunction with EPA and NRCS will develop and implement NPS control plans based upon TMDLs.

STATUS:

- (1) The official initiation of this project will begin upon the completion of the modeling

efforts described in WQA-1. The findings of the modeling effort will clearly influence the parameters of renewal permits for the eleven (11) holders of existing **municipal separate storm sewer systems (MS4) permits** in the MBNEP. The greater Mobile metro area had been designated as a "medium" MS4 because of the inter-relationship between the storm water discharges of the City and the surrounding areas. Portions of Mobile County, portions of Baldwin County, the Cities of Chickasaw, Creola, Prichard, Saraland, Satsuma, Daphne, and Fairhope and the Alabama Highway Department (AHD) were required by ADEM to participate

individually or become joint applicants with the City of Mobile. Due to the expense associated with monitoring and the preparation of the application, the Mobile Area Storm water Consortium was formed and its efforts were coordinated by South Alabama Regional Planning Commission (SARPC). Currently, the remaining areas within the MBNEP are required to work towards achieving their MS4 permits and efforts are underway in accordance with ADEM and EPA guidelines.

- (2) Non point source pollution (NPS) management plans and implementation activities are also mandated in the State's NOAA - designated coastal area (an area which is primarily contained within the MBNEP study area). Referred to as "Section 6217" (from the 1990 Coastal Zone Management Re-authorization Act), this program focusses upon best management practices (BMPs) and other NPS controls within specific categories of uses that can have impacts upon water quality such as: agriculture, urban uses, marinas and boatyards, roadways, etc. "Section 6217", a program shared by EPA and NOAA, in turn requires joint programming by ADEM and ADCNR Coastal Programs. At present, ADEM and ADCNR Coastal Programs are revising areas of their Draft Program previously submitted and developing the necessary plan components for the State to come into compliance with "Section 6217". The implementation of this plan will further the goals of MBNEP by providing needed outreach and education about best management practices and best available technologies to the user-groups most likely contributing NPS pollution in MBNEP waterways.. (Failure of the State to develop satisfactory management programs will result in incremental losses of funding to both the State's Section 319 program and for the Coastal Program).
- c. **ACTION WQ A-3:** will develop a resource management strategy for maintaining groundwater quality. MBNEP will encourage communities within the NEP area to develop and implement wellhead protection programs, will work with state and federal agencies to better define groundwater resources and properly plan for expanded groundwater withdrawals in order to abate well field development practices that may lead to saltwater intrusion, and will support existing programs that deal with prevention of groundwater contamination.

STATUS:

ADEM is reviewing its regulations to determine if amendments are necessary for wellhead area withdrawal parameters and procedures, and the Alabama Legislature is currently considering amending licensing requirements exceptions that have existed for well drillers in Baldwin County. Groundwater quantity and quality issues have been discussed at two (2) recent meetings: **MBNEP's co-hosted "Water Quality Forum"**, held March 27, 2002 and a "Sustainable Tourism Round table" held April 10, 2002.

The **MBNEP is the first National Estuary Program to become a "Groundwater Guardian"** and is currently developing linkages with partner organizations to distribute information and provide technical assistance.

- d. **ACTION WQ-A-4:** will develop a resource management strategy to ensure added protection and maintenance of High Quality Waters located in the Mobile Bay NEP area. Specifically, MBNEP and USFWS will identify stream segments of exceptional recreational, historical, and ecological significance which merit consideration for raising the water quality classification to "Outstanding Alabama Water", "Outstanding National Resource Water" or another higher use classification. (Weeks Bay, a federally designated National Estuarine Research Reserve is presently the only "Outstanding Natural Resource Water" within the MBNEP area). MBNEP proposes to develop Local Planning Teams through the **Community Advisory Committee (formerly The Citizens Advisory Committee and the Technical Advisory Committee)** for stream segments identified by MBNEP & USFWS in order to determine the level of scientific and public support for the reclassification efforts.

STATUS:

ADEM, at the request of the Baldwin County Commission evaluated portions of the Tensaw River for possible reclassification as an "Outstanding Alabama Water". However, this evaluation determined that these portions of the river did not meet the necessary criteria at that time. The Community Advisory Committee of MBNEP will continue to work towards identifying waterways to nominate for this designation.

- e. **ACTION WQ-B1:** will reduce or eliminate problems from excessive nutrient loadings within the Mobile Bay NEP and individual sub-basins. Local governments will attempt to develop and implement ordinances and encourage additional means for storm water detention and retention, including BMPs, alternative landscaping and other innovative methods in order to reduce nutrient and /or organic loadings. MBNEP will support efforts for development and implementation of NPS control programs.

STATUS:

- (1) Phase II of the MS4 permit requirements will capture the remaining municipalities and county areas within the MBNEP area which were not included within the Mobile Area Storm Water Consortium. One requirement of the MS4 is the incorporation of

a "land disturbance permit" into the land development ordinances of the jurisdiction. Mobile County, although lacking "home rule" necessary to pass local ordinances is initiating a program utilizing CIAP funding to accomplish better NPS control.

- (2) Under Phase II, ADEM's site specific NPDES permits will be reduced from a 5 acre to a 1 acre threshold. This would better ensure that BMP's were in place on construction sites. ADEM is currently evaluating the staffing needs necessary to meet this requirement.
- (3) NPS control plans and their implementation are mandatory for the NOAA designated coastal area of Alabama (the majority of this area is incorporated into the MBNEP area). Under "Section 6217", a program of NOAA and EPA, categories of uses requiring NPS management including: urbanized areas, forestry, agriculture, marinas

and boatyards have been identified. As previously noted, areas of the draft program previously submitted to EPA and NOAA are being revised for compliance.

- (4) Non point Source **MBNEP Action Plan Demonstration Projects included: Hank Aaron Stadium Wetlands Based Storm water Management Project** coordinated by Thompson Engineering in 1998 and 1999 illustrating how to reduce the amount of pollutants moving through storm water detention basins from parking areas with the use of wetlands vegetation; and **Feasibility Study for Reducing Erosion and NPS Pollution Using Alternative Road Paving Materials** by the Baldwin County Commission in 1998, 1999 which resulted in testing the effectiveness of soil binding compounds to reduce water quality problems from dirt road run-off.
- (5) Citizens-based watershed management programs such as the Dog River Clearwater Revival with assistance of the MBNEP member organizations such as ADNCR Coastal Programs and AUMERC have participated in education programs such as storm drain stenciling in sections of the City of Mobile (**an MBNEP Action Plan Demonstration Project - 1998**). MBNEP partnerships with the Master Gardeners Program (a citizens group), Alabama Cooperative Extension System, Coastal Programs and the Weeks Bay Watershed Project have produced an education outreach project and booklet entitled " **Greener by the Yard** ", and a riparian areas protection program - **Twelve (12) feet to Cleaner Water** emphasizing use of wetlands and natural vegetation to minimize run-off and limiting herbicides and fertilizers along the edges of waterways has been designed by AUMERC, Dog River Clearwater Revival and other partners.
- (6) The MBNEP has also partnered with and funded the Mobile Area Homebuilders Association and *grassroots inc.* (A citizens-based environmental education group). This effort produced a well-received **MBNEP Action Plan Demonstration Project -1999** utilizing bmps and erosion control materials on the construction sites of the

new homes on the Annual Parade of Homes. *Grassroots, inc.* with the assistance of AUMERC and DISL Coastal Policy Center also coordinated a "Mayor's Round table" for Mobile Mayor (and Policy Committee Chair) Mike Dow's Planning and Engineering staff along with members of the Greater Mobile Realtors Association to discuss erosion's impacts upon water quality, water quality's affect upon home buyers, materials and programs to mitigate water quality problems associated with erosion and so on.

- (7) With the Director of the MBNEP as a co-chair of the Steering Committee, Auburn University Marine Extension and Research Center (AUMERC), the Mobile and Baldwin Soil and Water Conservation Districts (SWCD), ADEM, DCNR Coastal Program, MBNEP and other partner organizations have developed a **Coastal Alabama Clean Water Partnership (CACWP)** under the Alabama Clean Water Action Plan. The purpose of the CACWP and **Task WQA1.4** of MBNEP's Year Six (6) Work Plan is to continue supporting existing grass-roots watershed groups and assist new watershed groups as appropriate through providing water monitoring

education and certification, water quality monitoring kits, and support of specific stream restoration activities. MBNEP in conjunction with AUMERC and invited experts recently hosted a well-attended **Stream Restoration Workshop**, and plans are being developed to continue this program.

- f. **ACTION WQ-B2:** This task addresses efforts to reduce nutrient input to the Mobile Bay estuary from the upstream river basin. Specifically, MBNEP will support ADEM's NPS programs statewide such as the 319 program, and will coordinate efforts with USGS Mobile River Basin NAWQA study. Additionally MBNEP will support and coordinate efforts with local and statewide watershed groups as feasible. The Tetra Tech model will be used for the whole State.

STATUS:

"Section 6217", as previously noted, is a coastal area mandated program which identifies agriculture as a use needing better NPS management through enhanced best management practices and best available technologies. This program will rely heavily upon building linkages with existing organizations such as ALFA and the Nurserymen Associations and each county's NRCS and Extension programs to educate and assist farmers, ranches, nurserymen etc. about the need to better manage herbicides, pesticides and fertilizers in upland areas within Mobile and Baldwin Counties. Additional expertise is available through these entities regarding "no till" methods and creation of riparian buffers with economic incentives. This information and these services are also available to the counties further upland within the Mobile Bay watershed.

- g. **ACTION WQ-C1:** This action is designed to reduce opportunities for pathogen introduction into the Mobile Bay estuary by minimizing or eliminating port ship ballast exchange, marine

waste from commercial and recreational vessels, sewage system failures, point source discharges, storm water / non point source discharges and septic systems. MBNEP in coordination with the Gulf of Mexico Program (GOMP) will coordinate efforts to develop an effective Gulf-wide solution for pathogen introduction to area waters (e.g. GOMP's initiative for a Gulf-wide ballast discharge policy). The U. S. Coast Guard has found that the low rate of voluntary reporting makes it impossible to accurately assess compliance and effectiveness and has stated that it intends to initiate a rule making to establish mandatory requirements to manage ballast water.

STATUS:

- (1) The **MBNEP Fairhope Bayfront Park Wetland Treatment Action Plan Demonstration Project** completed in 2001, consisted of a constructed Wetland treatment pond to treat pathogen contaminated effluent from the duck pond on Fairhope Beach. This project served a dual purpose: while treating the effluent, it also provided public education regarding the issue and the process addressing it.

- (2) In **October, 2001**, MBNEP and other partner organizations produced a "**Clean Marinas Workshop**" for marina owners, operators, boaters, and other interested citizens. On the program were: the U. S. Coast Guard discussing its regulations relative to discharges; ADEM discussing the "Clean Vessel Program" which makes pump out stations available at no or low cost to marinas through federal funding; and a Pensacola, Florida marina manager discussing the benefits of developing an area "Clean Marina Program" (a voluntary use of BMPs and other techniques to protect the marine environment).

- (3) In **March, 2002**, MBNEP in conjunction with ADCNR Coastal Programs, and the South Alabama Regional Planning Commission held a "**Water Quality Informational Forum**" in response to increase public awareness and concern regarding sewer system failures and line breakages among other water quality issues. Due to problems and failures with waste water systems in both Mobile and Baldwin counties during the spring and summer of 2001, Mobile Bay Watch, a citizens-based environmental group, had filed suit against the Mobile Area Water and Sewer System (MAWSS) for non compliance with the Clean Water Act. ADEM joined in the litigation, and a subsequent settlement has resulted in a consent decree of necessary actions for MAWSS to accomplish. These include spending over \$60 million over five years budget which will not only upgrade and repair existing lines and facilities, but will also address other issues relative to treatment of pathogens.

- (4) **Task WQ-C1:** Proposed for Sixth Year funding: the "Coastal Onsite Sewer Disposal System Education Project" will develop public outreach materials to educate people

with onsite wastewater systems on maintaining their systems to reduce pathogen introduction into the groundwater system. Project objectives are to increase public awareness of the contribution of pathogens from onsite wastewater systems to the water supply entering Mobile Bay; to provide the public with information on maintaining their onsite wastewater systems, and to provide the public with information on alternative advancements in onsite wastewater systems. (Previously MBNEP conducted a workshop at Weeks Bay on alternative waste water treatment systems as a follow up to watershed surveys of Magnolia River and Bon Secour River.

- (5) AUMERC with assistance from ADCNR Coastal Programs developed education brochures for local watershed groups (such as the Dog River Clearwater Revival) and presented programs in 2001, explaining the functioning and maintenance needs of on-site sewer systems and the impact their failures have upon receiving waterways. Additionally, MAWSS has supported the Dog River Clearwater Revival by disseminating brochures about the Dog River Watershed and its water quality programs along with guidance about proper disposal of matter (for instance: no household cooking oils) into sewer systems with it's monthly billing statements.
 - (6) Within both Baldwin and Mobile Counties, innovative waste treatment systems utilizing peat and/or created wetlands have been on-going research projects of Dr. Kevin White, University of South Alabama with grant assistance from MBNEP partner organizations (ADEM, ADCNR Coastal Programs).
 - (7) Currently, MAWSS, USACE, and AUMERC are investigating economically viable options to provide further sewer infrastructure into non- sewerred areas. MAWSS and Dr. Kevin White are working on a \$200,000 pilot project to determine septic system contributions to pathogen loads in area waterways. MBNEP anticipates partnering on the project. The Scenic Causeway Coalition has applied for a mini grant for a septic tank inventory on the Mobile Bay Causeway in preparation for restoration activities. And a Septic survey in Magnolia River will be carried out under GOMP funding to determine septic contributions to pathogen contamination of shellfish beds in Bon Secour Bay. MBNEP Year Seven (7) Work Plan will propose a septic system inventory for Mobile and Baldwin Counties.
 - (8) Grant proposals are being prepared to develop a "Coastal Alabama Clean Marina Program" through ADEM and ADCNR Coastal Programs' "Section 6217" program with assistance from MS/AL Sea Grant Consortium, AUMERC and other MBNEP partners.
- h. **ACTION WQ-D1** is a priority action for MBNEP. The preliminary characterization study of water quality identified that there is a lack of sediment data analysis and understanding in the MBNEP study area, and EPA, through its National Sediment Quality Survey (NSQS), designated the Mobile Bay hydrologic unit as an "Area of Probable Concern" with respect

to sediments. Additionally, ADEM had characterized certain locations as having moderate to poor sediment quality.

STATUS:

Woolpert, LLP was contracted in Year 5 (**Task WQ D1.1**) to expand the EPA National Sediment Inventory database to include all available relevant data; assess the quality of the data, attempt trends analysis on existing data, and determine the need for additional data to perform an overall evaluation of the status of Mobile Bay sediment quality and, if feasible, develop a program to determine probable causes of contamination and possible health risks associated with poor sediment quality. Other contractors and ADEM are assisting in sampling efforts. It is possible that findings of this task may result in continued efforts, possible remedial actions and possible additions to listed waters for TMDLs. Similarly, MS4 permits may be affected.

- i. **ACTION WQ-D2** offers opportunities for citizens to properly dispose of household and agricultural hazardous waste. and support and promote state and local efforts to establish hazardous waste amnesty and collection days for potentially toxic materials. .

- (1) For the past few years "Amnesty Days" in Mobile and Baldwin Counties and several Cities within the MBNEP have been coordinated by the MBNEP and Alabama Coastal Foundation and other MBNEP partner organizations such as ADCNR Coastal Programs, ADEM, the Forum and some private entities. In Program Years Three, Four and Five, MBNEP has supported County and municipal "Amnesty Days", and **Task WQ-D2.1** in the Year Six (6) Work Plan continues the tradition. With CIAP funding, Mobile and Baldwin Counties are proposing to develop centers for the proper disposal of household and agricultural hazardous wastes.

- (2) "Project Rose", a State-wide motor oil collection project will be incorporated into efforts to create a Clean Marina Program for Coastal Alabama.

- (3) In interesting innovative effort, the City of Fairhope contracts to dispose of electronics such as old computers, and Keep Mobile Beautiful and other organizations will participate in a collection program for used electronics on November 15 and 16, 2002 as part of "America Recycles Day".

2. LIVING RESOURCES PRIORITY ACTIONS

- a. **ACTION LR-A1:** This priority action of the MBNEP CCMP is in response to needs identified by the *Living Resources Characterization Study* prepared in Year Two and by MBNEP organization partners such as ADCNR, USF&WS, etc.

STATUS:

Identifying, monitoring, and establishing status and trends information regarding key species within the MBNEP area is an important element of the CCMP. Other MBNEP partner organizations such as ADEM and ADCNR Coastal Programs, ADCNR Marine Resources Division, and ADCNR Wildlife and Fresh Water Fisheries similarly need adequate and accurate status and trends information as part of their holistic and/or specific resource management plans.

ADCNR Marine Resources Division and the National Marine Fisheries Service (NMFS) maintain records on landings of shrimp, oysters and fish. With CIAP funding availability, the opportunity exists (**Task LR-A1.1**) to coordinate an effort with other similar, ongoing programs and projects to develop a management program that would meet the research, information and monitoring needs of all entities charged with the responsibilities of resource management. This effort would be coordinated by the MBNEP Data Information and Management System (DIMS).

- b. **ACTION LR-A2:** This priority action of the CCMP calls for the examination of state regulations regarding protection of species at risk and recommend expansion of regulations, better enforcement of regulations, and updating of state lists if warranted.

STATUS:

MBNEP Community Advisory Committee (formerly CAC and TAC) members are charged with the responsibility of reviewing information generated in the *Living Resources Characterization Study* in order to develop a list of priority species that may warrant immediate attention in the MBNEP area. There are plans to reconvene the "Living Resources Working Group" later this year (2002) to further discuss this information and a workshop with appropriate agency representation (ADCNR, ADEM, GOMP, NMFS, etc.) and

the State Attorney General will likely follow to consider recommending any changes regarding current state regulations and enforcement.

Baldwin County planners and USFWS are working on the issue of developing consistent permit applications with conditions for approval protective of beach mice.

Additionally ACES funding has been used for the last three years to support extensive research on the Red-Bellied Turtle: its range, habitat and increasing its numbers. There has also been over \$40,000 funding to study the extent and tracking of sea turtle movements in Mobile Bay and coastal Alabama.

- c. **ACTION LR-B1:** The MBNEP CCMP promotes identification of nuisance species and development of management plans for each in order to control negative effects on habitat and/or water quality within the MBNEP.

STATUS:

- (1) The MBNEP in conjunction with the GOMP, ADCNR, DISL and other MBNEP partner organizations is participation in the Aquatic Nuisance Species Task Force coordinated by the GOMP. Primary consideration is being given to those species (red tide, Australian jelly fish, etc.) that are in the shared waters of the Gulf of Mexico.
 - (2) ADCNR Freshwater Fisheries Division has management plans it implements within the Mobile -Tensaw Delta. The Nature Conservancy's Grand Bay BioReserve has developed management plans for cogon grass and other invasive species, and partnered with other entities (such as Shell Oil) to performed prescribed burns. Similarly the Weeks Bay NERRS has management plans for invasive species management within its boundaries.
 - (3) "Keep Mobile Beautiful", a citizens-based group, is currently removing water hyacinths from a waterway in Richard . Dog River Clearwater Revival published a newsletter in 2001 in response to concerns about an invasive sea weed flourishing at that time.
 - (4) Recommendations in the Mobile Bay Scenic Causeway Coalition's "Preliminary Corridor Management Plan" promote removal of Chinese Tallow (pop corn) trees and invasive marsh species such as fragmites.
 - (5) The Alabama Sea Grant Extension Program through AUMERC promotes an outreach program to marinas, boatyards and boaters about the dangers and identification of Zebra mussels. As previously noted, the U. S. Coast Guard is recommending mandatory (instead of voluntary) ballast water control under the National Invasive Species Act (NISA). And the Alabama State Legislature has passed "no discharge" regulations for Alabama waters.
 - (6) Research into invasive species is on-going at the DISL with Dr. Monty Graham as the nationally renown expert on jelly fish species. An innovative program called "Dock Watch" has been established that assists in this effort as well as surveying and providing increased education and outreach about Australian jellies and other species. MBNEP will partner with Indian River Lagoon NEP on a \$40,000 grant to extend Dock Watch into the Indian River Lagoon area this summer.
- d. **ACTION LR-C1:** The purpose of this Action is to examine how to efficiently measure fishing effort so that better coordination can exist among regulators, researchers, and

fishermen.

STATUS:

Step 1 in the MBNEP CCMP has been completed -- AUMERC has examined how fishing effort is being measured in Alabama and other Gulf States and made recommendations to ADCNR regarding improving data collection and ensuring compatibility with other programs. This data will be maintained with the MBNEP DIMS at the Dauphin Island Sea Lab.

ADCNR and other appropriate agencies such as the Gulf State's Marina Fisheries Council and the National Marine Fisheries are reviewing the recommendations for implementation consideration. Derelict crab traps, and use of turtle excluder devices (TEDs) and bycatch reduction devices (BRDs) are among the issues.

- e. **ACTION LR-C2:** This CCMP Action calls for the examination of the possibility of increasing fisheries resources.

STATUS:

- (1) A Gulf of Mexico Shellfish Grant was awarded to the MBNEP in April, 2000 as part of it's program to increase shellfish production. AUMERC performed research activities and prepared a report: "Potential for Enhancing or Re-Establishing Oyster Reefs in BonSecour Bay" utilizing a portion of the funds available from this grant.
- (2) MBNEP has a combined oyster reef restoration and public education/ outreach effort (**Task LR-C2.1**) partnering with AUMERC to coordinate volunteers with waterfront properties to raise oyster spat in protective cages. This has been a very successful and popular project. With principle funding from GOMP, measurements of oyster growth, predators, and water quality were taken on a bi-weekly basis in 2001 yielding much new data on shellfish production in Mobile Bay.. In Year Six, MBNEP proposes to provide oyster spat and cage construction expertise for volunteers to raise the oysters until they reach a juvenile stage and can be collected and placed on degraded reefs.
- (3) Dr. Bob Shipp and the ACES program received a \$1,000,00 grant to establish new oyster beds in Mobile Bay. Funding is available in the summer of 2002 with construction to start soon after.
- (4) Alabama Seafood Association and CCA have participated in the "Roads to Reefs" program establishing several reefs in Mobile Bay as well as along the Coast.
- (5) In addition to managing the replenishment of oyster reefs, ADCNR has been active in the development and monitoring of fisheries artificial reef habitats for many years. Within the past year, ADCNR has also been successful in applying "conditions" to

ADEM and USACE permitted activities that impact "essential fish habitat" with requirements for provision of artificial reefs in areas they have designated. An example is the requirement for an artificial reef as a condition for approval for a substantial bulk heading permit along the City of Mobile's waterfront.

- (6) Gas production platforms and rigs are also functioning as artificial reefs and have become very productive fish habitats as evidenced by the popularity of the near shore structures around Dauphin Island and Fort Morgan for fishermen and divers.

- f. **ACTION LR-C.:** This CCMP Action requires examination of the possibility of decreasing or controlling effort as needed (e.g., limited entry for stressed fisheries in concert with commercial fishers, encourage catch-and-release as a means to control recreational fishing effort).

STATUS:

Species specific management plans have been developed successfully and managed by NMFS and ADCNR Marine Fisheries Division and Wildlife and Fresh Water Fisheries Division. Based upon monitoring, limits and/or prohibitions are often placed upon certain species until the agencies determine the population has recovered. Most recently red snapper species was removed from the prohibited list (with size and number limitations now in place.) MBNEP partner Mississippi / Alabama Sea Grant Consortium proposes to convene a panel of experts including appropriate agency representatives, district attorneys, members of commercial and recreational fishermen's organizations, etc. to encourage additional studies and to determine the impact of by catch on fish populations within the Mobile Bay NEP. Additionally this panel of experts could examine effectiveness of existing regulations and their enforcement.

ADCNR Marine Resources Division, Alabama Seafood Association, CCA and MBNEP are participating in a "Derelict Crab Trap Removal Program" to begin in June, 2002.

3. HABITAT MANAGEMENT PRIORITY ACTIONS

- a. **ACTION HM -A1.** It is a priority CCMP action to identify and prioritize sites of particular sensitivity, rarity, or value in the Mobile Bay NEP area for potential acquisition and or restoration, maximizing the contributions of existing preservation and management sites and the capabilities of all agencies and organizations involved in these programs. This action includes development of a non-regulatory incentive -based program for habitat restoration, management, and protection utilizing a multi-species approach.

STATUS:

- (1) Through the identification efforts of the Alabama Forever Wild Program, ADCNR Lands Division and Coastal Programs Division, TNC, Weeks Bay NERRS, Grand

Bay BioReserve, and the GOMP Gulf Ecological Sites (GEMS) Program (along with activity groups such as Ducks Unlimited, and Alabama Wildlife Federation), substantial areas of significant habitat have been inventoried and/or nominated for public acquisition when funding is available. Fortunately, as a result of CIAP and other programs, over 50,000 acres have been set aside in the Mobile / Ten saw Delta. The Grand Bay National Wildlife Refuge has acquired 166 acres of coastal salt marsh and uplands with principal funding from the U. S. Fish and Wildlife Service and TNC, and the Weeks Bay NERR has purchased and an additional 14 acres of

property. The Weeks Bay Reserve Foundation has purchased 49 acres of wetlands/riverine habitat along the Fish River adjoining the 64 acres already owned by the Foundation. Approximately four (4) acres of beach have been purchased by the USFWS, TNC, and the Sierra Club in Bon Secour Wildlife Preserve and over 27 acres have been purchased for conservation by the City of Gulf Shores and ADCNR.

- (2) Local Government partners habitat acquisition and restoration efforts include: Mobile County's Bay Front Park which includes several wetlands habitats as well as low impact boardwalks and interpretive signage; and the City of Daphne's acquisition of Mobile Bay waterfront property (Town Point Park) which contains wetlands as well as natural beach areas.
- (3) Habitat restoration efforts have included a controlled burn of pine Savanna by TNC and Shell Oil in Mobile County; restoration of approximately 50 acres on Mobile Bay by the City of Daphne, restoration of a freshwater wetland in Weeks Bay NERRS, and restoration of estuarine shoreline with native cypress trees by the Alabama Coastal Foundation.
- (4) MBNEP sponsored the Alabama Coastal Foundation effort, "**Christmas in August**", an **Action Plan Demonstration Project (APDP)** for habitat restoration and shoreline erosion which resulted in reclaiming eroding wetlands along a portion of Weeks Bay by placing old Christmas trees in brush fences to catch silt deposited by natural wave action.
- (5) The CCMP calls for MBNEP, ADCNR Coastal Programs, and GOMP to develop a "Coastal Habitats Coordinating Team" comprised of all of the agencies and entities with habitat conservation and protection interests within the MBNEP area. (This team is a follow on to the Habitat Working Group). It is proposed that this Team will evaluate existing programs and develop an information matrix of capabilities, limitations and requirements; identify programs in other areas that may be appropriate to consider (such as Mississippi's "Coastal Preserves Program"); promote integrated coastal habitat acquisition, restoration and preservation as part of non-regulatory incentive-based programs and other related activities.

The Management Committee of the MBNEP, at its April, 2002 meeting discussed convening the "Coastal Habitats Coordinating Team" in order to sustain the momentum of interest in habitat acquisition and preservation recently generated by the Mobile-Ten saw Delta acquisition. This will be addressed in the Year Seven (7) Work Plan.

- b. **ACTION HM -B1:** This CCMP Action cites the need to protect or restore SAV habitats in the Mobile Bay NEP area.

:

STATUS:

- (1) The habitat characterization reports of the MBNEP, the CCMP and ADCNR's Coastal Program (ACAMP) have all identified the information gaps related to submerged aquatic vegetation.

Task HM-B1.1 in the MBNEP Year Six (6) Work Plan brings forward the SAV Mapping Project, a task of prior years, which will focus upon gathering digital benthic habitat data to determine a baseline for Mobile Bay and the State of Alabama waters (both freshwater and saltwater). The Gulf of Mexico Program, Bay Area Fly Fishers and ADEM Coastal Programs will partner with this project. A contract for services has been awarded. Aerial photography will be performed this summer when conditions permit.

- (2) This project will be in GIS and standard database format and will become part of the MBNEP DIMS housed at the Dauphin Island Sea Lab. This information can be used to assist resource protection agencies such as ADCNR Marine Resources Division and others in management recommendations such as no-wake zones, etc. Additionally, this information will be valuable to create a map of SAV areas that can be used for public education outreach purposes and can be distributed in a SAV Workshop and a Boater's Guide publication. (**Task HM-B1.2**)
- (3) Dr. Dianna Sturm, MBNEP Scientist, will begin a pilot program this summer to collect SAV seeds for a "SAV Gardening Project" that will be established in the summer of 2003 and supported by a GOMP grant.

- c. **ACTION ITEM HM -C1:** Maintenance and/or improvement of beneficial wetlands functions within individual watersheds of the Mobile Bay NEP area by : a) reducing the loss in quality and quantity of existing wetlands; b) preparing a strategic mitigation plan for coastal Alabama; and restoring degraded marsh habitats is a priority action in the CCMP.

STATUS:

- (1). The lack of accurate, consistent and easily applicable information regarding the quantity and current extent of wetlands habitats have frustrated resource managers for years. Lack of quantifying the extent of wetlands areas lost or converted and the

analysis of trends has similarly handicapped wetlands protection advocates in their efforts to promote sound land use planning and smart growth practices. **Task HM-C.1** in the Year Six (6) Work Plan continued the effort of MBNEP, GOMP, and ADEM. Photography for Mobile County was obtained in the winter of 2002 and mapping is in process now. The project will be melded with Baldwin County's efforts and completion of the mapping and synthesis will produce a long-awaited and invaluable tool for public education as well as for municipal and county comprehensive land use planning purposes. Additionally, the MBNEP Year Six (6) Work Plan, **Task HM-C1.2** calls for a workshop to educate the public about the results of the mapping project and a discussion of how the information has uses.

- (2) A Coastal Wetlands Mitigation Plan has been developed with the assistance of MBNEP partner organizations: USACE, USF&WS, EPA, ADEM, ADCNR, and others. Mitigation Banking procedures have been established, and, as a result, larger more cohesive and manageable wetlands mitigation areas are taking the place of many heretofore piece-meal wetlands mitigation efforts (often found to be unsuccessful).
- (3) MBNEP formally requested the US Army Corps of Engineers to restore wetlands lost due to previous construction activities at Pinto Pass near McDuffie Island along the City of Mobile waterfront. This will be a joint project of USACE, the Alabama State Port Authority and MBNEP. Additionally, the recently announced opening of the Mobile Bay Causeway by bridging two sections will likely result in the increase of wetlands vegetation.
- (4) ADCNR Coastal Programs with assistance from the Dauphin Island Sea Lab Coastal Policy Center prepared a "Coastal Counties Wetlands Conservation Plan". (The precursor of this effort was a Advanced Identification of Wetlands (ADID) grant from EPA Region 4 for a portion of South Baldwin County.) The CCWCP, finalized in 2001 is the result of a three year effort by the "Coastal Wetlands Working Group", (most of the members were also MBNEP Management Committee and/or MBNEP Community Advisory Committee Members and/or MBNEP Habitat Management Working Group Members). The "Coastal Counties Wetlands Conservation Plan", in addition to identifying information and enforcement gaps to be addressed, makes specific public policy recommendations for the protection and enhancement of wetlands resources in the Alabama Coastal Area (and most of the MBNEP area).

It is expected that the MBNEP Habitat Management Working Group will be re-convened (**Task HM -C1.4**) upon completion of the wetlands mapping task described above.

It is also expected that the implementation of numerous policy recommendations - specifically "Smart Growth" land Use practices of clustering development away from wetlands resources may be incorporated into county and municipal comprehensive land use plans, zoning districts, and land development ordinances. An effort is already underway: the Mayor of the City of Mobile has recently announced the convened a "Smart Growth Steering Committee" and has appointed the MBNEP

Director and several other MBNEP partners to the committee.

- (5) Citizens activities to support wetlands habitat and natural vegetation planting have included a cypress tree planting project by many volunteers coordinated by the Alabama Coastal Foundation for the past two years; and numerous wetlands plants sales sponsored by the DISL, the Mobile Botanical Gardens, and the Weeks Bay Preserve have increased the public's knowledge and understanding of the functions of wetlands (besides flowers). Year Six (6) of the MBNEP Work Plan includes **(Task HM-C1.4)** to support volunteer efforts for planting trees and/or restoring native vegetation on State lands -- also a recommendation found in the draft "Corridor Management Plan" for the Mobile Bay Scenic Causeway.
- d. **ACTION HM-D1:** This CCMP priority action calls for the reduction of the loss of beach and dune habitat through development of coastal regulations that examine projects for impacts on beach and dune habitat.

STATUS:

- (1) ADEM, through its Division 8 regulations enforces the policies developed in the Alabama Coastal Management Program (ACAMP). Both the ACAMP policy document and the corresponding Division 8 regulations are revised from time to time. Currently, a construction control line developed after Hurricane Frederick marks the areas along the shore that are buildable. ADEM now also requires a wave/height model analysis (e-dune modeling) to determine if proposed building placement relative to dune line is satisfactory as part of its permitting procedures. Additional requirements for construction materials and standards have been enacted as required by the Federal Flood Insurance Program including special velocity zones as well as flood plain and flood ways as mapped adjacent to tidal waters. The Cities of Gulf Shores and the Town of Dauphin Island require wash-over sands on public roads as a result of storm events to be removed and placed back into the littoral system instead of allowing it to be moved off site.
- (2) ADCNR Coastal Programs and Lands Division protect dunes and beach habitat by strictly permitting dune walkovers when necessary for the public to access public beach or for a riparian owner's access.
- (3) The U.S. Fish & Wildlife Service enforces the protection of the Alabama Beach Mouse, a listed endangered species, through conditioning permits to minimize adverse affects upon the beach habitat in designated areas..
- (4) Beach and dune habitat is also protected against development intrusions through the Coastal Barrier Resources Act (CBRA) which prohibits federal funds from being used to subsidize property insurance, roadway infrastructure or other activities upon areas deemed to be precarious and hazardous for development.

- (5) Recent renourishment of beaches (Gulf Shores through local bonding efforts) and Dauphin Island through Federal emergency infrastructure protection assistance) have occurred within the past few years. It is reasonable to expect that this will become a standard policy and practice.

- e. **ACTION HM-D2** Determine the impacts of dredging activities and disposal practices on natural beach erosion processes and develop alternative dredge material disposal techniques to improve shoreline areas.

STATUS: ADCNR Coastal Programs has contracted with Dr. Scott Douglass of the University of South Alabama to produce "State of the Beaches" reports for the last three years. These reports have documented the erosion and accretion of beaches in Coastal Alabama. These reports have also contained a discussion of the potential benefits of sand bypassing at each inlet as the primary solution to the state's beach erosion problems. (An identified need is an inlet management plan for Mobile Pass.) A study of the main pass to Mobile Bay was conducted and resulted in the establishment of a new federal disposal site for dredge materials, thus providing for a more beneficial use of the material.

- f. **ACTION HM-D3.** This CCMP item calls for research of the extent of shoreline erosion due to boat wakes and other factors and reduction of the loss of bay/sound/bayou intertidal habitat due to bulkheading and the impacts of bulkheads.

STATUS:

- (1) Components of this Action are underway with ADCNR Coastal Programs Section 309 funded "Bulkhead Study" which will identify areas most affected by or are most prone to be affected by bulkheads. This will be a three year project which will also allow for an inventory of existing bulkheads and shoreline structures and research into the alternatives to bulkheads included beach and wetland creation and beneficial use of dredged material for shoreline sustainability where feasible.
- (2) ACES funding resulting in modeling wind, waves and ship wakes. Preliminary results were presented in May, 2002 and additional funding was approved. Modeling may identify areas that could be preserved without bulkheads.
- (3) A related effort, MBNEP Year Six (6) Work Plan **Task HU-B1.2 Bulkhead Survey** will continue the work in the Dog River watershed by a Geography Department graduate student from the University of South Alabama. This task may include surveying types of material utilized for bulkheads, noting areas of erosions and interviewing property owners for their experiences.

- g. **ACTION HM-E1** Prevent the decline in nesting habitat for colonial and migratory birds and

reduce declines in nesting habitat due to human disturbance and alterations.

- STATUS:**
- (1) MBNEP partners USACE, Alabama State Docks, ADCNR & USF&W Service have developed a management plan for Gilliard Island bird populations.
 - (2) Potential conflicts on Ft. Morgan Peninsular between the need to rehabilitate and redevelop the area around State property at historic Ft. Morgan and the need to protect the substantial areas on the site that support migratory birds have been tentatively resolved with the agreement that site planning for the Fort will design ways to protect the birding areas.
 - (3) "The Alabama Gulf Coast Birding Trail", which was recently officially opened, has identified significant birding sites for both migratory and colonial birds from Perdido Pass to Dauphin Island. With assistance from the USF&WS, ADCNR, and the Alabama Gulf Coast Visitors and Convention Bureau, a booklet has been produced and interpretive signage placed at the sites on the trail in order to further public interest and stewardship.
 - (4) Dr. John Dindo of the Dauphin Island Sea Lab and others have worked on Cat Island in Portersville bay to benefit birding habitat.
 - (5) Efforts to restore wetlands areas (such as those at Pinto Pass)are generally understood to benefit bird nesting areas. Preservation of wetlands such as those acquired in the Mobile/ Ten saw Delta, Cat Island in Mobile County, Grand Bay BioReserve, Weeks Bay NERRS and Wetlands Mitigation Banks ensure protection against human disturbance and alteration, and with management plans in place, protect large contiguous areas necessary to support birds and other species.

4. HUMAN USES PRIORITY ACTIONS:

- a. **ACTION HU-A1:** The CCMP identifies the need to develop and implement land use planning that ensures smart growth for sustainable development designed to abate sprawl and loss of aesthetically pleasing environment.

STATUS:

MBNEP and its partner organizations: SARPC, ADCNR Coastal Programs and DISL

Coastal Policy Center along with Mobile-Baldwin United and *grassroots, inc.* (a non profit citizens-based environmental education organization) are actively participating in several projects related to promoting "Smart Growth" philosophy.

- (1) Specifically, *grassroots inc.* has been accredited by the Alabama Board of Realtors to teach continuing education classes (CEU's are necessary for realtors to maintain their licenses). The first program developed -- "Sand Castles" (overviewing the scientific background and the practical implications associated with developing on barrier islands) has been taught for over three years to standing room only groups.

"Water Runs Down Hill" is the second program which addresses water quality, erosion, non point source pollution and practical means to control these problems. This program has similarly been very well received. In this program year, the **MBNEP** has submitted an environmental education grant proposal to EPA to allow *grassroots inc.* to continue this effort with a program designed to demonstrate better design of residential subdivisions through the principles of cluster design and avoidance of wetlands and other natural constraints. This program will include scientific information; will feature a developer of a local successful "environmentally friendly" subdivision discussing the financial benefits associated with less grading, site filing and infrastructure as well as the positive marketing aspects of these designs; and will culminate with a landscape architect assisting the participants in a design "charette". Upon notification of funding approval, this project will be implemented in the summer, 2002.

- (2) ADCNR Coastal Programs and DISL Coastal Policy Center have been positioned to provide technical assistance to local governments through their planning professionals and planning commissions. Most recently, DISL Coastal Policy Center has been asked to provide "in-service" education to the Mobile Planning Commission regarding Smart Growth concepts and City of Mobile Mayor Mike Dow has convened a "Smart Growth Task Force" and appointed the MBNEP Director along with other MBNEP members.
- (3) The Mobile Bay Scenic Causeway Coalition was formed to investigate the protection and enhancement of the access to natural resources available from the Causeway -- the Mobile/Ten saw Delta and the Upper and Lower Mobile Bay waterways. Members of this Coalition include: MBNEP; Mobile Bay Watch (a citizens environmental group); DISL; ADEM; ADCNR; ALDOT; private landowners and business interests; members of wildlife protection, fishing and hunting associations; Alabama State Docks; and local citizens and elected officials. Goals of the Coalition are two fold: to restore, where possible, the hydrologic flow conditions that have been cut off by the Causeway's construction; and to seek State and Federal Scenic Byway designation in order to enhance the aesthetics of the Roadway Corridor and form a "gateway" to the natural resources of the Mobile Bay and Delta. Auburn University's School of Landscape Architecture and DISL Coastal Policy Center with principle (limited) funding from ADCNR Coastal Programs has completed a

Preliminary Corridor Management Plan which emphasizes low impact development and stresses public access improvements. The Causeway has received Alabama State Scenic By Way designation and funding through ALDOT to proceed with development of other elements necessary to go forward for National designation as well as to provide limited amenities such as signage and safety improvements.

- (4) Efforts through Baldwin County via the "Baldwin County Trail Blazers" (among others), within the City of Mobile via the Tricentennial Celebration Committee, and Dauphin Island and Gulf shores have resulted in plans and implementation of the plans for Greenway Corridors. These corridors not only enhance aesthetics and provide public access to coastal resources by bike trails and walking paths but also provide opportunities for education with interpretive signage.
- b. **ACTION HU-B1:** The CCMP identifies the need to assess and remediate negative hydrologic effects of past land management decisions.

STATUS:

- (1) MBNEP plans to assemble a hydrologic review panel of government agencies, county and municipal sewer boards and private entities to assess cumulative hydrologic impacts of past land management practices and to develop remediation strategies where feasible.
 - (2) As previously discussed **Task HU-B1.2-"Bulkhead Survey"** in the MBNEP Year Six (6) Work Plan proposes to amplify a University of South Alabama Geography graduate student's work effort that involved investigating the water's edge of Rabbit Creek and surveying the existing conditions relative to material type used for bulkheading if any, vegetation and evidence of erosion. This effort could be a "prototype" to encourage not only citizens participation in local watershed efforts, but to compile a existing features survey.
- c. **ACTION HU-B2:** This important CCMP Action identifies the need to restore to more natural hydrological conditions, where feasible, to Mobile Bay NEP waters that have been adversely impacted by artificially created structures.

STATUS:

- (1) Alabama Governor Siegelman announced a \$5.9 million project with the Alabama Department of Transportation and the U.S. Corps of Engineers to open up two portions of the Mobile Bay Causeway. This action will promote freer interchange of waters from the Bay to those areas above the Causeway by building bridges at Shell Bank and Sardine Pass. The MBNEP Outreach Coordinator, Lee Yokel performed a major role in the USACE study to develop this plan which will re-create some of the hydrologic flow patterns disturbed by the Mobile Bay Causeway's construction over fifty (50) years ago.

- (2) The restoration of wetland areas with the removal of the dike at Pinto Pass by the USACE is a remedial action as is the current dredging of the Dog River channel to natural depths to facilitate flow exchange.
 - (3) Poor land use planning and development decisions in the past have placed numerous lives along with property in harm's way. Hazard mitigation plans in both coastal counties have been developed and implemented through FEMA's Project IMPACT. As part of these plans, funds are made available for "repetitive loss" properties built in precarious flood plains that should have been left undeveloped. Acquisition of these properties and removal of structures helps to remedied negative past land management decisions and allows the flood plain to function properly. Additionally, the USACE completed the Mobile Bay SLOSH model to illustrate hurricane surge hazard scenarios. Not only useful for hazard and evacuation management, this is a tool to guide land use and infrastructure decisions.
- d. **ACTION HU-B3:** This CCMP action identified the need to reduce the impacts of erosion and sedimentation on stream banks and bottoms from construction, road building and unimproved roads, agriculture, forestry, waterfront property development, dirt and soil mining and utilities work sites' run off.

STATUS:

- (1) As previously noted in the Water Quality Issues Section, there are eleven (11) holders of existing **municipal separate storm sewer systems (MS4) permits**. The greater Mobile metro area had been designated as a medium MS4 because of the inter-relationship between the storm water discharges of the City and the surrounding areas. Portions of Mobile County, portions of Baldwin County, the Cities of Chickasaw, Creola, Richard, Saraland, Satsuma, Daphne, and Fairhope and the Alabama Highway Department (AHD) were required by ADEM to participate individually or become joint applicants with the City of Mobile. Due to the expense associated with monitoring and the preparation of the application, the Mobile Area Storm water Consortium was formed, and its efforts were coordinated by South Alabama Regional Planning Commission SARPC)). Currently, the remaining areas within the MBNEP are required to work towards achieving their MS4 permits and efforts are underway in accordance with ADEM and EPA guidelines.
- (2) Under Phase II, ADEM's site specific NPDES permits will be reduced from a 5 acre to a one (1) acre threshold. This would better ensure that BMP's were in place on construction sites. ADEM is currently evaluating the staffing needs necessary to meet this requirement.
- (3) Non point source (NPS) pollution management plans and implementation activities are also mandated in the State's NOAA - designated coastal area (an area which is primarily contained within the MBNEP study area). Referred to as "Section 6217"

(from the 1990 Coastal Zone Management Re-authorization Act), this program focusses upon best management practices (BMPs) and other NPS controls within specific categories of uses that can have impacts upon water quality such as: agriculture, urban uses, marinas and boatyards. "Section 6217", a program shared by EPA and NOAA, in turn requires joint programming by ADEM and ADCNR Coastal Programs. At present, ADEM and ADCNR Coastal Program staff members are revising areas of a Draft Program previously submitted and developing the necessary plan components for the State to come into compliance with "Section 6217". The implementation of this plan will further the goals of MBNEP by providing needed outreach and education about best management practices and best available technologies to the user-groups most likely contributing to non point source pollution. (Failure of the State to develop satisfactory management programs will result in incremental losses of funding to both the State's Section 319 program and for the Coastal Program).

- (4) Citizens-based watershed management programs such as the Dog River Clearwater Revival with assistance of the MBNEP member organizations such as ADNCR Coastal Programs and AUMERC have participated in education programs such as storm drain stenciling in sections of the City of Mobile ("This Drains to Mobile Bay"), and a riparian areas protection program ("12 feet to Cleaner Water") emphasizing use of wetlands and natural vegetation to minimize run-off and limiting herbicides and fertilizers along the edges of waterways.
- (5) The MBNEP has also partnered with the Mobile Area Homebuilders Association and grassroots inc. (A citizens-based environmental education group) with a well-received demonstration project utilizing bmps and erosion control materials on the construction sites of the new homes on the 2000 Annual Parade of Homes. *Grassroots, inc.* with the assistance of AUMERC and DISL Coastal Policy Center also coordinated a "Mayor's Round table" for Mobile Mayor (and Policy Committee Chair) Mike Dow's Planning and Engineering staff along with members of the Greater Mobile Realtors Association to discuss erosion's impacts upon water quality, water quality's affect upon home buyers, materials and programs to mitigate water quality problems associated with erosion and so on.
- (6) With the Director of the MBNEP as a co-chair of the Steering Committee, Auburn University Marine Extension and Research Center (AUMERC), the Mobile and Baldwin Soil and Water Conservation Districts (SWCD), ADEM, ADCNR Coastal Program, MBNEP and other partner organizations have developed a **Coastal Alabama Clean Water Partnership (CACWP)** under the Alabama Clean Water Action Plan. The CACWP will continue to support existing grass-roots watershed groups and assist new watershed groups through education outreach in support of stream restoration activities.

- (7) Recently, MBNEP in conjunction with AUMERC hosted a well-attended "Stream Restoration Workshop". There are plans to solicit additional funding and continue this effort.
- e. **ACTION HU -C1:** This CCMP Action identifies the need to encourage eco-tourism, increase public access and awareness of sites, and expand camping and recreational facilities in the Mobile Bay NEP area.

STATUS:

- (1) MBNEP partners ADCNR Coastal Programs and Dauphin Island Sea Lab Coastal Policy Center completed the *Coastal Alabama Comprehensive Public Access Plan* as a component of the Alabama Coastal Area Management Program. This plan is the result of approximately three years' work which included inventorying the public access sites in existence along the Alabama coastal area including Mobile Bay and its tidal tributaries. Other components of the study included research of other state's coastal public access plans; design standards appropriate for public access; funding

and financing mechanisms, equity issues, management strategies, identification of additional sites appropriate for acquisition and/or improvements, and policy recommendations to strengthen the public's right to physical, visual and interpretive access of coastal resources. This plan will also be useful as a component of the State Comprehensive Outdoor Recreation Plan (SCORP), which must be current in order to qualify for acquisition and development funds offered through various federal programs such as LWCF and UPRR. Additionally, evaluation criteria were developed and are currently being used to weigh NOAA Section 306-A low-cost construction project applications.

- (2) The Mobile Bay Scenic Causeway Coalition and the preliminary "Corridor Management Plan" previously discussed emphasize the importance of the provision of public access to coastal resources especially for members of the public dependent upon subsistence fishing. Preliminary design concepts call for numerous waters edge board walks and several public piers for this purpose.
- (3) The recently established Alabama Coastal Birding Trail and the soon to be established Canoe Trail which will also include camping facilities in the Mobile-Tensaw Delta are examples of MBNEP partners efforts to promote eco-tourism.
- (4) The MBNEP Year Six (6) Work Plan designates **Task HU-C1.1** to support ADCNR Coastal Programs in efforts to provide more handicapped access, pier, beach and park improvements at Blakely State Historic Park, and in the cities of Daphne, Gulf

- (5) An innovative public-private participation design program has been initiated by the MBNEP, the Dog River Clear Water Revival, the City of Mobile and AtoFina Chemical Corporation (a supplemental environmental project under their agreement with the EPA). This project creates a walking/biking/jogging "Greenway Park" along a very visible section of Montlimar Drainage Canal - an "eyesore" known for holding debris. (Prior to its straightening, widening, and paving, it was Montlimar Creek). In addition to serving as an initial link in the City of Mobile's plans to develop an extensive network of greenway trails, this project will utilize steamside plantings of native shrubbery and trees to restore riparian buffers, permeable surfacing for the trail and signage highlighting the environmental benefits of environmental stewardship and maintaining water quality.
- (6) The Alabama Gulf Coast Visitors and Convention Bureau, along with the Alabama Coastal Foundation and the Dauphin Island Sea Lab Coastal Policy Center hosted a "Sustainable Tourism Round table" in April, 2002 to initiate discussions with members of the private sector regarding incentives and other means to ensure the protection of coastal resources so that tourists' experiences are quality experiences. The awareness of the market and the needs to sustain eco-tourism was identified as a principle concern. MBNEP has designated continuing support for an additional EcoTourism/ Sustainability Workshop in the Year Six (6) Work Plan (Task HU-C1.3).
- (7) One of the incentive / enhancement mechanisms for tourism sustainability discussed in the Round table was the "Blue Wave" Certification which is available through the Clean Beaches Council as a way to help the public identify the nation's cleanest, safest and most environmentally well-managed beaches in the highly competitive tourism market. The MBNEP Year Six (6) Work Plan Task HU -C1.4 supports the promotion of this Clean Beaches effort. **The City of Gulf Shores was designated a Blue Wave Beach on May 17, 2002 through MBNEP efforts.** The Town of Dauphin Island has applied but must make corrections, and MBNEP is helping prepare the corrections. Other incentive /enhancement mechanisms identified that are in existence in other areas and that merit investigation include the previously mentioned Clean Marinas Program, a "Green Golf Course" program designation and a "Green Resorts Program".
- (8) Acquisitions of significant properties for public access to natural resources have been increasing in the last few years. The City of Daphne has improved public access to Mobile Bay with the acquisition and creation of a waterfront park, Mobile County has developed "Bay Front Park", and the most prominent: over 50,000 acres within the Mobile-Tensaw Delta have been acquired for the public through the joint efforts of the State of Alabama and with federal funding assistance and numerous citizens/environmental groups efforts.

5. EDUCATION AND PUBLIC INVOLVEMENT PRIORITY ACTIONS

- a. **ACTION EPI-A1** The CCMP emphasizes the importance of continuing existing public outreach efforts included in Mobile Bay NEP Work plan while developing and/or enhancing Coastal Environmental Education Campaigns focusing on identified areas of concern and targeted to specific user groups and audiences.

STATUS:

Community participation represents a large element of the overall Public Participation and Education Strategy. Existing public participation efforts will continue to be supported including but not limited to attendance at local chapters of national organizations such as the Audubon Society and the Sierra Club. Also, more local, watershed-based environmental organizations such as the Dog River Clear Water Revival and the Friends of the Tensaw River meetings are regularly attended by MBNEP staff. Existing municipal environmental

groups include such as the Prichard Brownfields Restoration Group, the Mobile Chamber of Commerce Ozone Task Force and the Eastern Shore Chamber of Commerce Environmental Committee also are supported by MBNEP staff attendance.

Additionally Mobile Bay NEP has participated in the organization of environmental efforts including the Fly Creek Restoration group and the Magnolia River Property Owners group.

Goals and objectives for public participation and education were established by the Management Committee and supported by the Community Advisory Committee. Three goals highlight the public participation and education program:

1. To educate targeted audiences and the general public regarding the history, function and activities of the Mobile Bay National Estuary Program.
2. To involve the community in activities that affect Mobile Bay and to address the priority issues and action plans established by the CCMP.
3. To encourage community participation in the Comprehensive Conservation and Management Plan.

The MBNEP Year Six (6) work plan included in the Appendix "A" of this report, identifies twenty-two (22) specific education and public involvement tasks --some new initiatives and some continuations of current efforts.

- b. **ACTION EPI-B1** This Action Item involves developing a comprehensive citizen monitoring and report program.

STATUS:

The (draft) Mobile Bay National Estuary Program Monitoring Plan (August 2000) describes the existing monitoring efforts within the MBNEP area conducted by MBNEP partner organizations (which include citizen groups) and makes substantial recommendations.

Now that the CCMP has been finalized, the MBNEP will be able to go forward and address monitoring as a priority. This may require " revisiting of the Monitoring Plan to make amendments and adjustments . Additionally, plans to coordinate these efforts into a Data Information Management System (DIMS) to be housed at the Dauphin Island Sea Lab can proceed.

B. Activities of Stakeholders

Activities of each of the categories of major stakeholders in implementation, including state and local governments, citizens groups, environmental groups, and businesses, as well as which implementation activities are being carried out by the core NEP program staff. For each category or group of implementers, summarize their major contributions/activities in implementation, and describe how well each category of implementer is supporting implementation, and any issues /challenges. Also include feedback on EPA's progress in carrying out its commitments in the CCMP and areas where EPA, either Headquarters or the Region, could assist the specific NEP.

The Mobile Bay National Estuary Program's *Comprehensive Conservation and Management Plan (CCMP)* is dependent upon the efforts of the following **five (5) categories** of major stakeholders in order to achieve its goals and objectives. A summary of the MBNEP program staff members' roles in implementation is the sixth category and EPA's assistance role is overviewed as the seventh.

1. Federal Agencies
2. State Agencies
3. Local, County and Regional Entities
4. Citizens / Environmental Groups
5. Industry and Business Interests
6. MBNEP Program Staff
7. EPA - Region 4 and Headquarters

The outline format of this section considers each category's roles as they relate to the issue areas identified in the CCMP (and overviewed in the previous section of this report): **Water Quality, Living Resources, Habitat Management, Human Uses, and Education and Public Involvement**. Within each of these subjects, the following questions are answered:

- (1) What Actions identified in the CCMP are to be supported by members of this category?
- (2) What is the current level of CCMP implementation support by members of this category?
- (3) What are the issues or challenges members of this category face in supporting the Actions?

1. FEDERAL AGENCIES WITH CCMP IMPLEMENTATION ROLES

Army Corps of Engineers, Mobile District (USACE)
Environmental Protection Agency, Region IV (EPA)
Coast Guard (USCG)
Fish and Wildlife Service (USF&WS)
National Marine Fisheries Service (NMFS)
NOAA, National Marine Fisheries Service
NOAA, OCRM - Coastal Zone Management
U. S. Department of Agriculture, Natural Resources Conservation Service (NRCS)
U..S. Geological Survey (USGS)
Federal Emergency Management Agency (FEMA)
Federal Department of Transportation (DOT)
Mineral Management Service(MMS)

FEDERAL AGENCIES' ROLES IN WATER QUALITY ACTIONS

a. **CCMP WATER QUALITY ACTIONS supported by FEDERAL AGENCY contributions or activities**

Action WQ-A1 - Assess Data to Identify Water Quality Problems includes **Task WQ-A1.2 Atmospheric Deposition Monitoring-** where data collected from the National Atmospheric Deposition Program (NADP) National Trends Network monitoring site and Mercury Deposition Network (MDN) will be used in the MBNEP's water quality modeling effort. This information will be used in TMDL assessments and subsequent permitting and NPS control plans by ADEM and EPA.

Task WQ-A1.3 - Water Monitoring Program was to be supported by funding from EPA for EMPACT - the new technology for real-time monitoring/measurement data utilizing specific criteria and parameters that are transmitted to an Internet web site every 15 minutes. However, funding from NOAA via CIAP will be used instead.

In **Action WQ-A2 - Incorporate Loadings Information Into NPDES** -, EPA's role (in conjunction with ADEM) is to develop and implement NPS control plans based on TMDLs. The U.S. Army Corps of Engineers is to assist EPA (and ADEM) in developing water quality predictive models.

Action WQ-4A - Ensure Protection and Maintenance of High Quality Waters - identifies the U. S. Department of Interior's Fish and Wildlife Service as assisting by identifying stream segments of exceptional recreational, historical or ecological significance so the **MBNEP's COMMUNITY ADVISORY COMMITTEE** (formerly the Citizens Advisory Committee and the Technical Advisory Committee) can assist local planning teams in advancing a water body's consideration by ADEM as an Outstanding Alabama Water (OAF).

Action WQ - B1 - Reduce Excessive Nutrient Loading Within the MBNEP - recognizes that EPA funds ADEM under Section 319 of the Clean Water Act for many aspects of State NPS activities. Similarly, the Section 6217 (a joint program of NOAA and EPA to be administered by ADEM and ADCNR Coastal Programs) is identified to assist with NPS control. The U.S. Department of Agriculture is also a cooperator because of the numerous programs offered through NRCS that promote responsible agriculture and forestry practices.

Action WQ-B2 -Address Upstream Nutrient inputs - cites the USGS Mobile River Basin National Water Quality Assessment Program as ongoing and identifies the USDA, NRCS as cooperators. As in Action WE-B1 above, NPS programs such as Section 319 and Section 6217 when implemented and discharge limitations placed upon NPDES permits and MS4 permits after TMDLs are performed should decrease nutrient inputs.

Action WQ-C1. Reduce Opportunities for Pathogen Introduction - identifies the U. S. Coast Guard as the federal cooperator proposing to mandate monitoring of ships' ballasts and share data with the MBNEP. EPA (& ADEM) are to promote municipal self-audits to reduce pathogens from point sources; NRCS will reduce pathogens from animals by supporting implementation of AFO/CAFO rules and use of agriculture BMPs .

Action WQ-D1 Assess Problems Related to Sediment Quality designates the USACE, EPA, and USFWS as federal agency cooperators. EPA, through its National Sediment Quality Survey (NSQS) designated the Mobile Bay hydrologic unit as an "Area of Probably Concern" with respect to sediments. Additionally, the USACE requires sediment to be evaluated for contamination in dredging projects pursuant to the CWA.

b. FEDERAL AGENCIES current level of support of WATER QUALITY ACTIONS

Action WQ-A1- support is through EPA's Section 106 Grant for Statewide TMDL development and water quality planning, some of which are to be used for the Mobile Bay area of concern. This effort awaits completion of the modeling report being prepared by a contractor.

Pursuant to **Task WQ-A1.2**, EPA has awarded the Mobile Bay NEP funding for atmospheric deposition monitoring and two sites (one in each county) are up and operating. This data will also be included into the modeling efforts for the TMDL studies.

Actions WQ -B1 and B2 federal activities include: the ongoing USGS Mobile River Basin National Water Quality Assessment Program; USDA Natural Resource Conservation Service programs such as the Conservation Reserve Program (CPR), Farmland Protection Program, Environmental Quality Incentives Program, and the Watershed Protection and Flood Prevention (Small Watershed Program) to promote responsible practices to eliminate upstream inputs; and the Daphne Ecological Services Field Office of US.F& WS "Partners for Fish and Wildlife Program" which gives technical assistance and funding to restore vegetation in eligible areas. (Providing habitat could also filter nutrients.)

Action WQ C1 is currently supported by USF&W Service funding to ADEM to sponsor the Clean Vessel Program which provides marine sanitary device (MSD) pump-out stations for boats at marinas and other facilities.

Action WQ -D1 includes **Task WQ-D1 Sediment Characterization Analysis** which has been prepared by Woolpert, LLP. This report assesses and expands the EPA database, and reports status to EPA with recommendations.

c. FEDERAL AGENCIES issues/challenges in supporting WATER QUALITY ACTIONS

Federal Agencies -- particularly EPA Region 4, USACE Mobile District, & USF&WS Daphne Field Office have been integral team players from the inception of the MBNEP.

EPA Region 4 can continue to perform in a leadership role by through ensuring that NPS pollution programming efforts administered by ADEM prioritize actions identified in the MBNEP CCMP and annual work plans for funding consideration. Specifically Section 309 and Section 6217 programs could be invaluable in funding on-the-ground efforts that would likely meet the goals of not only MBNEP, but of ADEM's 319 program, and certainly of ADCNR and ADEM's joint Section 6217 Program.

Similarly, EPA Regional 4 and the National Office could assist MBNEP by advising of other projects funded or being considered for funding that fall within the MBNEP general area. These include, but may not be limited to: Environmental Education Grants, Brownsfields Redevelopment Funding, Superfund Sites Remediation and the like. MBNEP could benefit from the knowledge and synergies of these efforts even if they were not initiated or generated within the MBNEP organization.

Federally permitted gas extraction rigs have been implicated, at least in the press, as a possible source of mercury contaminants among other possible problems. Consideration should be given to clarifying the information and mitigation of damages if possible.

FEDERAL AGENCIES' ROLES IN LIVING RESOURCES ACTIONS

a. **CCMP LIVING RESOURCES ACTIONS supported by FEDERAL AGENCY contributions or activities**

Action LR-A1 - Improve Monitoring of Key Living Resources -identifies the USFW&S, USACE-Waterways Experiment Station, NOAA, USCG, and the USDA-NRCS as cooperators in efforts to increase the level of monitoring of living resources in the MBNEP area. **Task LR-A1.1** with CIAP funding continues the data synthesis work begun in Year two of the program .

Action LR-A2 - Improve Monitoring of At-Risk Species calls for the **COMMUNITY ADVISORY COMMITTEE** to host a meeting to include the National Marine Fisheries Service, USACE and USFW&S as federal participants in reviewing habitat loss and living resources characterizations reports.

Action LR-B1 - Develop Management Plans for Nuisance Species includes USDA as a federal partner to participate in a workshop with other entities to consider the need for changes regarding state regulations, and to draft appropriated legislation for Alabama based on 1995 Non-indigenous Aquatic Plant Control Act.

Action LR-C1 Efficiently Measure Fishing Effort involved a research effort and evaluation of how other areas addressed this issue. This effort has been completed by AUMERC. NMFS has been identified as a federal agency in the implementation of the recommendations.

Action LR C3 - Manage Fishing Effort calls for a Gulf- wide examination in conjunction with NMFS as a federal cooperator and other entities to review fisheries management plans, examine effectiveness of regulations and consider limited entry for stressed fisheries, catch and release programs etc.

b. **FEDERAL AGENCIES current level of support of LIVING RESOURCES ACTIONS**

The USFWS actively manages the habitats of, and populations of, endangered and threatened species including the Alabama beach mouse, gopher tortoise, red bellied turtle, sea turtle, and others. As previously noted, the Daphne Ecological Services Field Office of USF&WS "Partners

for Fish and Wildlife Program" gives technical assistance and funding to restore vegetation in order to increase habitat to support fish and wildlife. Additionally, the National Park Service prohibits harassment of animals within its properties.

c. FEDERAL AGENCIES issues/challenges in supporting *LIVING RESOURCES ACTIONS*

The challenges associated with fisheries management are not new. Commercial fishermen and other subsistence fishermen resist management attempts although eventually they seem to comply. Currently there is controversy regarding gill net users along the Alabama Coastal area.

Federal permitting of open-water mariculture facilities (as proposed in Alabama waters several years ago) should continue to meet the highest scrutiny for the potential of introduction of non-indigenous species as well as for the potential of water quality problems. Similarly mineral extraction structures (gas rigs) brought from deeper or other water bodies (such as the Caribbean) and placed in Alabama waters have been identified in the press as sources for non-indigenous species. Consideration should be given to determining the negative impacts of this situation and mitigation measures if possible.

FEDERAL AGENCIES' ROLES IN HABITAT MANAGEMENT ACTIONS

a. *CCMP HABITAT MANAGEMENT ACTIONS* supported by FEDERAL AGENCY contributions or activities

Action HM-A1 - Development of a Coastal Habitats Coordinating Team -identifies federal agency members as USFWS and USACE among others. The Coastal Habitats Coordination Team will map, identify, implement, and monitor these invaluable habitats. GOMP funding will be solicited for GIS support of this project.

Action HM-CI -Maintain and or Improve Beneficial Wetland Functions - calls for the Coastal Habitats Coordinating Team members of USF&WS and USACE to identify high priority sites for marsh restoration.

Task HM-C1.3 Coastal Counties Wetlands Conservation Plan Implementation -brings forward the NOAA- funded three year effort of ADCNR Coastal Program. The Coastal Counties Wetlands Conservation Plan included the participation of federal members (as well as other entities on the MBNEP management committee) in it's creation. This Task melds the policies and strategies into the CCMP that are mutually beneficial to both MBNEP and ADCNR Coastal Program.

Action HM-D1-Determine Impacts of Dredging on Coastal Habitats states that MBNEP will develop a "Coastal Dredge Materials Task Force" to develop a Coastal Dredge Material Management Plan based on the Upper Mobile Harbor Dredge Management Plan. The principal federal member will be USACE authorized under Section 204 of the Water Resources Development Act of 1992 to restore, protect and create aquatic and wetland habitats in connection with

construction or maintenance dredging of an authorized navigation project. USF&WS is another important federal partner.

b. FEDERAL AGENCIES current level of support of *HABITAT MANAGEMENT ACTIONS*

Action HM-C1 - current efforts include the USAF&WS Daphne Ecological Services Field Office promoting the "Partners for Fish and Wildlife" program which offers technical and financial assistance to private landowners to restore and enhance fish and wildlife habitat. As previously noted, the U.S. Department of Agriculture Natural Resource Conservation Service programs such as the Conservation Reserve Program (CPR), Farmland Protection Program, Environmental Quality Incentives Program, and the Watershed Protection and Flood Prevention (Small Watershed Program) promote responsible practices that also include riparian buffers protection and enhancement.

The USACE is currently restoring wetland acres at Pinto Pass under Section 206 of the Water Resources Development Act which allows the USACE to restore degraded aquatic ecosystems.

The USACE along with the USF&WS and other partners has approved two Wetlands Mitigation Banks in order to encourage restoration, enhancement and protection of larger wetlands areas to mitigate for incremental wetlands lost due to permitting processes.

Action HM-D1 -Assess Beach and Dune Habitat Loss - USFW&S monitors and manages beach mouse habitat areas; and FEMA monitors coastal hazards such as beach and dune loss associated with storm events. Federal funds to support beach replenishment may be allowable if an approved beach management plan is in effect.

Action HM-E1- Prevent Nesting Habitat Decline Current efforts include the :USF& W Service assistance in the creation of the Coastal Alabama Birding Trail, which through interpretive access will generate increased stewardship of bird species and their habitat needs. Additionally, USF&W Service provided assistance in developing the Rookery management plan for Gilliard Island in Mobile Bay and Cat Island in Portersville Bay.

c. FEDERAL AGENCIES issues/challenges in supporting *HABITAT MANAGEMENT ACTIONS*

Issues/challenges associated with habitat management generally relate to the development stresses upon areas where endangered or threatened species need to be-- such as beaches and dunes for the Alabama Beach Mouse and where people want to have homes --such as waterfront areas where beaches, wetlands and riparian vegetation typically exist.

The USACE has borne most of the blame for the loss of wetlands habitats in the Alabama Coastal

Area and the MBNEP area due to approvals of development requests , but the State of Alabama has failed to identify wetlands as "waters of the State" or develop a position to protect them. Within the past three years, the MBNEP and the Alabama Coastal Program has placed considerable focus upon the need to improve our knowledge of the location and types of remaining wetlands habitats. As identified in MBNEP Year Six (6) Work Plan, HM-C1.1 will produce digital color-infrared geo-referenced photography of Mobile and Baldwin Counties in order to determine a status and trends, habitat types and other information necessary.

There are no federal agencies (nor State or private for that matter) managing conservation easements for small tracts of land (non agricultural). This would be a useful incentive - especially in urbanizing areas, for coordinating and preserving riparian parcels into stream-side buffers, migratory pathways or green space corridors.

FEDERAL AGENCIES' ROLES IN HUMAN USES ACTIONS

a. CCMP HUMAN USES ACTIONS to be supported by FEDERAL AGENCY contributions or activities

Action HU-B1 - Assess Hydrologic Effects of Development Practices - calls for the creation of a hydrologic review panel of government agencies and other interests to assess cumulative hydrologic impacts of past land management practices and to develop remediation strategies where possible. Federal cooperators include FEMA and the USACE.

In **Task HU-B1.1 Causeway Hydrologic Modification**.- the USACE studied the potential of opening portions of the Battleship Parkway (Mobile Bay Scenic Causeway) in order to restore more natural flow conditions. This Task is complete with recommendations brought forward and resulting in planned actions to open two portions of the Causeway.

Action HU-B2- Restore Natural Hydrologic Conditions - USACE, having completed the feasibility study and remediation strategy above will partner with the Department of Transportation in a \$5.9 million project to promote freer interchange of waters from the Bay to those areas above the Causeway by building bridges at Shell Bank Landing and Sardine Pass.

Similarly, USACE's Dog River Project has resulted in a dredged river channel to natural depths in order to restore hydrologic functions.

Action HU-B3 - Better Control Erosion and Sedimentation - identifies federal cooperators as EPA, FEMA, NRCS, and USFWS as key federal agencies to cooperate in education and BMP implementation to minimize erosion and sedimentation on stream banks and bottoms from construction, road building and unimproved roads, agriculture, forestry, waterfront property development, dir/soil mining and utilities work sites' run off.

Action HU-C1- Increase Public Access and Eco-Tourism Opportunities. The CCMP identifies

USFWS as a federal agency with interests in eco-tourism and public access locations.

b. FEDERAL AGENCIES current level of support of HUMAN USES ACTIONS

Action HU-AI - Develop and Implement Comprehensive Land Use Planning. FEMA's "Project IMPACT" could be a basis to support Smart Growth philosophies. Project IMPACT mitigates coastal hazards by encouraging land development away from low lying, flood prone areas. Funds are also provided to purchase repetitive loss properties, remove them and leave the land for open space to function for flood control, wildlife buffers and as vegetative filters for water quality improvements.

Action HU-B1 - Federal Interests include FEMA Flood Plain Management Program and it's, Project Impact Program described above. Additionally, USACE's SLOSH model showing flood surge associated with storm events can also be used as an "overlay" to direct development away from harm's way.

Action HU-B3 - USDA -NRCS encourages agriculture and forestry BOPS. Erosion control programs of the Department of Agriculture, NRCS include the Conservation Reserve Program which pays for re-vegetation of riparian areas (CPR), Farmland Protection Program, Environmental Quality Incentives Program, and the Watershed Protection and Flood Prevention (Small Watershed Program). Additionally, NOAA and EPA's joint Section 6217 program to be developed and administered by ADCNR and ADEM Coastal Programs addresses coastal non point source (NPS) pollution prevention in use categories such as agriculture, forestry, urban uses, marinas and boatyards and the like. Best management plans and best available technologies will be part of this program. (Alabama's Section 6217 has conditional approval at this point. Upon final approval, funding will be available to promote numerous NPS programs.)

Action HU-C1- USFWS clearly has an interest in protecting habitats through educating tourists and building environmental stewardship. The National Park Service also is interested in attracting and educating tourists about the natural features within each park. Both of these Federal entities will be invited to participate in the next Alabama Coastal Area Sustainable Tourism Workshops per **Task HU-C1.3.**

The current CIAP funding (administered by State Officials) but made available by Congress to coastal states from federal revenues generated by oil and gas leases has provided substantial funds to provide more public access opportunities and increase public properties. Recent purchases of land in the Mobile-Tensaw Delta and improvements for physical and interpretive public access opportunities will also be a result of CIAP funding.

Additionally the Federal Department of Transportation in the Transportation Equity Act for the 21st Century (TEA 21) has provided for a significant increase in funding for "enhancements" for designated Scenic Byways. (Mobile Bay Scenic Causeway has received State designation as a Scenic Byway and will be submitted for federal designation consideration.) Eligible transit

enhancement activities include: historic preservation, rehabilitation and operation of historic mass transportation buildings and facilities; bus shelters, landscaping and scenic beautification; public areas, pedestrian access and walkways; bicycle access including bike storage facilities and bike on bus racks, transit connects to parks within the transit service area, signage and enhanced transit access for persons with disabilities. Allocations from this funding source and through the Alabama Department of Transportation will further the low profile boardwalks, interpretive signage, and public access piers describe in the draft Mobile Bay Scenic Causeway Corridor Management Plan.

c. FEDERAL AGENCIES issues/ challenges in supporting HUMAN USES ACTIONS

In order for a local government and its constituents to have the availability of federally subsidized flood insurance, the local government must have an approved Flood Management Plan. It is also required that each government have the ability to zone flood plains so that they may designate low impact uses and have design and performance standards appropriate for low lying areas. All participating government entities have this ability (even counties without "home rule" such as Mobile

County) through State enabling legislation. However not all government entities exercise their right to ensure that densities of development- including infrastructure, do not place properties and lives in harm's way. This is a missed opportunity for "Smart Growth" that FEMA could encourage or mandate.

Similarly, "Smart Growth" as a policy cannot be practiced without the participation of the Federal and State Departments of Transportation as it is a well documented adage that "growth follows the roads". Although the Metropolitan Planning Organization (MPO) is a part of SARPC and is charged with transportation management in our area, the MPO boundaries do not include substantially parts of the MBNEP area (such as Baldwin County). Therefore, DOT and ALDOT should be key partners with MBNEP in developing and implementing land use plans especially since there is national focus and funding available for alternative means of transportation such as light rail services in lieu of continued sprawl-encouraging road building.

EPA and NOAA's joint Section 6217 Program (to be administered by ADCNR and ADEM Coastal Programs) offers a great opportunity to facilitate programs and partner with other groups to benefit sustainable tourism. Examples include support of the "Clean Marina Program", the "Blue Wave Program" (a designation recently awarded to the City of Gulf Shores through MBNEP assistance) "Green Resorts". "Green Golf Courses", and the like -- certification programs indicating that the industry or local government participants are practicing best management techniques to protect water quality and other environmental features.

ACTION EPI-AI - ENHANCE PUBLIC EDUCATION AND OUTREACH

EPA offers annual grants for environmental education programs, and MBNEP in conjunction with *grassroots inc.* expects to receive a grant for an innovative citizens education program geared for real estate professionals to learn about "Smart Growth" practices and techniques. Almost all federal programs, such as USF&W, USACE service have public education and outreach components in

their programs specifically relating to their missions. MBNEP offers opportunities through its endeavors to distribute these materials for the federal partner agencies.

2. STATE AGENCIES WITH CCMP IMPLEMENTATION ROLES

Alabama Department of Conservation and Natural Resources - Coastal Programs
Alabama Department of Conservation and Natural Resources- Lands Division (Forever Wild)
Alabama Department of Conservation and Natural Resources -Marine Resources Division
Alabama Department of Conservation and Natural Resources- Marine Police
Alabama Department of Conservation and Natural Resources - Wildlife and Freshwater Fisheries
Alabama Department of Economic and Community Affairs - Office of Water Resources
Alabama Department of Environmental Management
Alabama Department of Transportation
Alabama Forestry Commission
Alabama State Docks
Alabama State Department of Public Health
Geological Survey of Alabama

STATE AGENCIES' ROLES IN WATER QUALITY ACTIONS

a. **CCMP WATER QUALITY ACTIONS** to be supported by STATE AGENCY contributions or activities

Action WQ-A1 - Assess Data to Identify Water quality Problems specifies that ADEM will assist in development of management tools based on predictive models and ADPH will assist in development of monitoring plans.

Task WQ-A1.2 Atmospheric Deposition Monitoring Support cites that ADEM will support by committing time and effort in sampling, analysis and maintenance of the two air monitoring sites.

Task WQ- A1.4 Watershed Group Formation and Facilitation states that ADEM is s a member of the Coastal Alabama Clean Water Partnership (CACWP) the steering committee to lead this effort.

Action WQ-A2 Incorporate Loadings Information Into NPDES also states that ADEM will develop and issue NPDES permits based on TMDLs developed in Action WE-A1 and in developing and implementing N.S. control plans based on TMDLs.

Action WQ-A3 Maintain Groundwater Quality identifies ADECA Office of Water Resources, ADEM, ADPH as the principal State entities.

Action WQ-A4 Ensure Protection and Maintenance of High Quality Waters: ADEM will evaluate stream segments for special consideration.

Action WQ-B1 Reduce Excessive Nutrient Loading Within the MBNEP ADCNR and ADEM's Coastal Programs are State entities under the Section 6217 program with this primary responsibility of developing and administering the Section 6217 program. However, numerous state programs are also partners.

Action WQ-B2 Address Upstream Nutrient Inputs. ADEM's N.S. (Section 319) program coordinates N.S. efforts that are not in the designated Coastal Zone.

Action WQ-C1 Reduce Opportunities for Pathogen Introduction. ADEM encourages self audits to reduce pathogens from municipal NPDES point source discharge permittees. ADEM administers the "Clean Vessel Program" to provide financial assistance and with ADCNR Coastal Programs and Marine Resources Division, encourage pump-out facilities at coastal marinas. The State passed legislation in 2001, identifying state waters as areas of no overboard discharge.

Action WQ-D1 Assess Problems Related to Sediment Quality. ADEM will evaluate the sources and levels of input of identified toxic chemicals in identified problem areas.

Task WQ-D1.1 Sediment Characterization Analysis designates that Woolpert, LLP will build upon ADEM's ALAMAP -C report for 1993-94 which characterized certain locations as having moderate to poor sediment quality.

Action WQ-D2 Provide for Safe Disposal of Hazardous Waste identifies that ADEM's "Project Rose" has been active in oil recycling.

b. STATE AGENCIES current level of support of WATER QUALITY ACTIONS

Action WQ-A1- ADEM issues general and specific permits for air emissions, NPDES for regulated discharges into waters of the state and MS4 permits for storm water. ADEM Coastal Program also issues 401 water quality certification for permitted actions and maintains water quality sampling stations.

Task WQ-A1.2 - ADEM's Air Division is sampling, analyzing and maintaining the two atmospheric deposition monitoring sites for mercury and nutrients (one in Bay Minette and one in Theodore).

Task WQ-A1.4 continues ADEM Coastal Programs evaluations of watershed conditions, and ADCNR Coastal Program's efforts to establish and assist local citizens watershed groups.

Actions WQ-B1 and WQ-B-2 are substantially addressed with ADEM's Section 319 Funds for NPS control programs. Alabama Soil and Water Conservation Districts, and ADCNR Coastal Programs support numerous education outreach efforts geared to abating NPS pollution.

The Alabama Forestry Commission and ALDOT are both participants in the Section 6217 program, and ALDOT is a member of the Mobile Area MS4 Storm water Consortium.

ADEM recently presented the Clean Vessel Program information during ADCNR Coastal Programs co-sponsored Clean Marinas Meeting and ADEM has also distributed information about the program to area marinas. ADEM responds to citizens and utility services reporting of sewage in Alabama waters, performs testing and notifies the County Health Department.

c. STATE AGENCIES issues/ challenges in supporting WATER QUALITY ACTIONS

ADAM is a state agency that is under-funded to meet its current obligations, and additional personnel will be required to evaluate and prepare permits in Phase II (where the threshold for site review reduces from 5 acres to 1 acre.) Support for increased ADEM funding is essential to improved water quality in the MBNEP area.

ADAM's Section 319 (NPS) Program has it's own guidance and EPA approved management plan. Concerns about lack of coordination have been expressed by MBNEP members. Therefore, it is recommended that ADAM's Section 319 program should give priority to funding MBNEP annual work plans. For coordination purposes, MBNEP should also be advised when ADAM Section 319 program funds are used within the MBNEP area even if the activity is not directly related to MBNEP specific actions. After ADCNR and ADAM Coastal Programs receive approval of their Section 6217 Program, the same priority funding consideration for MBNEP actions should also apply.

Similarly, MBNEP and the Mobile Field Office of ADAM would benefit from knowing what activities or programs other ADAM Divisions are pursuing within the MBNEP area. These include, but are not

limited to Environmental Education Grants, Brownsfields Redevelopment Funding, Superfund Sites Remediation and the like. Also, it is important for the MBNEP to know about haz mat and other emergency actions that occur within the MBNEP area.

STATE AGENCIES' ROLES IN LIVING RESOURCES ACTIONS

a. CCMP LIVING RESOURCES ACTIONS to be supported by STATE AGENCY contributions or activities

Action LR-A1 Improve monitoring of key living resources- The CCMP states that after appropriate agencies have developed monitoring programs for nuisance species, the Alabama Department of Public Health will develop water quality protection and monitoring plan specifically dealing with nuisance harmful algal blooms.

Action LR-A2 Improve monitoring of at-risk species - This action items identified that the Alabama Department of Conservation and National Resources, ADAM and the State Attorney General are to assess the need for changes in regulations and enforcement.

Action LR-BI Develop management plans for nuisance species: ADCNR, ADEM, will participate in a workshop to assess need for changes regarding state regulations and/ or draft appropriate legislation based on 1995 Non-Indigenous Aquatic Plan Control Act.

Action LR-C1 Efficiently Measure Fishing Effort states that ADCNR Marine Fisheries Division will review AUMERC's recommendations.

Action LR-C2 Increase Fisheries Resources states that ADCNR will continue to develop and monitor artificial habitats in appropriate areas of Mobile Bay and Alabama Department of Public Health approves sites for Oyster Reef Restoration (**Task L.R. -C2.1**).

Action LR-C3 Manage Fishing Effort indicates that ADCNR- Marine Resources Division; ADCNR Wildlife and Freshwater Fisheries Division (among others) will examine other state plans, programs and develop a plan for MBNEP.

b. STATE AGENCIES current level of support of LIVING RESOURCES ACTIONS

Action LR-C2 ADCNR Marine Resources Division in permitting reviews for modifications to essential fish habitats, have required creation of artificial reefs to compensate for water bottoms and waterways impacted because of commercial bulkheads along the City of Mobile waterfront.

Action LR-C3 ADCNR Marine Resources Division along with the Alabama Seafood Association, CCA, and the MBNEP is beginning a "Derelict Crab Trap Program" beginning in June, 2002 to remove old and abandoned traps from waters open to shrimping.

c. STATE AGENCIES issues/challenges in supporting LIVING RESOURCES ACTIONS

Restrictions upon fisheries are often necessary issues for State resource manager. Fishermen are the challenges.

STATE AGENCIES' ROLES IN HABITAT MANAGEMENT

a. CCMP HABITAT MANAGEMENT ACTIONS to be supported by STATE AGENCY contributions or activities

Action HM-A1 Develop a Coastal Habitats Coordinating Team - indicates ADCNR -Coastal Programs will facilitate organization which will also include other MBNEP state partners, ADCNR Natural Heritage and "Forever Wild" Program.

Action HM-B1 Protect or Restore SAV Habitat - The Coastal Habitats Coordination Team member ADCNR Marine Resources Division will expand "no wake " zones and consider "no motor" zones in sensitive SAV areas.

Task: HM B1.2 SAV Workshop and Boaters Guide will be supported by ADCNR Coastal Programs and Marine Resources Division.

Action HM-C1 Maintain or Improve Beneficial Wetlands Functions. The MBNEP CCMP designates the formation of a Coastal Habitats Coordinating Team. Members presenting the State will include ADCNR and ADEM Coastal Programs.(ADCNR develops policy; ADEM regulates through Division 8.) Other State agencies concerned are the ADCNR Divisions of: Land, (Forever

Task HM-C1.1 Habitat Mapping Project is a cooperative effort that includes ADEM funding and participation in creating a baseline of wetlands and other habitats in Mobile and Baldwin Counties. This project's objectives are to determine status and trends, quantify the extent of wetland and other habitats loss or conversion and produce information in a GIS format.

Task HM-C1.3 Coastal Counties Wetlands Conservation Plan Implementation is a task in the Year 6 work plan to further the goals and objectives of the Wetlands Conservation Plan (developed over a three (3) year period by ADCNR Coastal Programs with participation of MBNEP partners) by melding them with the Habitat Management Objectives and Action Plans in the CCMP.

Task HM-C1.4 Habitat Restoration -Vegetation planting in the MBNEP Year Six (6) Work Plan calls for ADCNR State Lands Division to assist in identifying land needing to be restored in the Mobile- Tensaw Delta or along the coastal areas and, with the assistance of volunteers, plant trees, coastal vegetation or submerged aquatic vegetation.

Action: HM-D1 Assess Beach and Dune Habitat Loss. This action requires ADCNR and ADEM Coastal Programs to develop enforceable regulations to better develop beach and dune habitats in the coastal zone of the MBNEP area.

Action HM-D2 Determine Impacts of Dredging of Coastal Habitats. The MBNEP CCMP states that a Coastal Dredge Materials Task Force will be convened to develop a Coastal Dredge Material Management Plan based on the Upper Mobile Harbor Dredge Management Plan. State Agency participants will include: Alabama State Docks, ADCNR Marine Resources Division and ADEM.

Action HM-D3 Address Shoreline Erosion - The CCMP states that ADCNR-Coastal Programs will develop strategies aimed at reducing shoreline losses, ADCNR - MRD will increase "no wake" and limited wake" zones.

Action HM - EI Prevent Nesting Habitat Decline . ADCNR-State Lands Division will develop a GIS-based annual monitoring effort for colonial sea bird and shorebird nesting sites to determine status and trends for management decisions and public information. Alabama State Docks will also develop agreement to fund placement of shell in appropriate nesting areas.

b. STATE AGENCIES current level of support of HABITAT MANAGEMENT ACTIONS

Action HM-C1: State agencies represented in the MBNEP were also represented in the Development of the Coastal Counties Wetlands Conservation Plan effort coordinated by ADCNR Coastal Programs. Similarly, many of these representatives were participation in the USACE Mitigation Banking Review Team which developed policies that resulted in the mitigation banks allowed in coastal areas.

Action HM-D:1 The policy developed by ADCNR Coastal Programs in ACAMP relative to dune and

beach protection requires examination of all coastal development projects for impacts on beach and dune habitats before construction or other disturbance is allowed. ADEM enforces this policy in its Division 8 regulations by requiring dune/height and other studies prior to the issuing of construction permits. Additionally, ADCNR Coastal Programs contracts with and provides funds to local governments to monitor the dunes and sand beaches to minimize destruction by residents or visitors. This includes enforcement of laws prohibiting sea oats removal and vehicles on the beach.

Action HM-D1 Construction of dune cross-overs or impacts to dunes is permitted and monitored by ADCNR Coastal Programs.

Action HM-D3 ADCNR Coastal Programs is planning a research effort to inventory and evaluate the waters edges along the Alabama Coastal to determine the various rates of change as well as the impacts of bulkheads or other shoreline protections.

Action HM-E1 ADCNR Divisions are very supportive of the Alabama Birding Trail and other programs to create public stewardship of environmental resources.

c. STATE AGENCIES issues/challenges in supporting HABITAT MANAGEMENT ACTIONS

Relative to wetlands habitats, ADEM as the state regulatory and enforcement agency has not been given the strength to exceed the standards offered by the USACE in protecting Alabama Coastal wetlands habitats against development impacts. However, ADEM has offered technical expertise and participated in development of the CCMP, the drafting of the Coastal Counties Wetlands Conservation Plan and joined USACE's efforts as part of the wetland banking investigation. State agency MBNEP partners ADCNR Lands Division with the State's Forever Wild program, and with

CIAP funding through ADCNR's Coastal Program have purchased thousands of acres of wetlands within the MBNEP to date ensuring the permanent protection of these habitats against negative impacts.

Although vertical bulkheads are discouraged, they are still permitted within the Alabama Coastal Zone continuing what has been known to cause nearby shoreline erosion. In general, state agencies face challenges necessitating continuous education and outreach about the value of wetlands, the reasons that shorelines should be sloped instead of armored and the need for naturally vegetated open spaces for migratory animals.

STATE AGENCIES' ROLES IN HUMAN USES ACTIONS

a. CCMP HUMAN USES ACTIONS to be supported by STATE AGENCY contributions or activities

Action HU-AI Develop and Implement Comprehensive Land Use Planning. This CCMP action

identifies ADCNR Coastal Programs as the State partner best positioned to provide technical assistance to local governments in researching appropriate land development ordinances and other "Smart Growth" implementation measures.

Action HU-BI Assess Hydrologic Effects of Development Practices calls for a Hydrological Review Panel to be convened that will include State representation by Alabama Department of Public Health, Alabama Department of Transportation (District 9) and others.

Action HU-B2 Restore Natural Hydrologic Conditions is an action that includes ADCNR Lands Division Coastal Programs, ADEM, Alabama State Docks, and ALDOT as State members of the Mobile Bay Scenic Causeway Coalition. This Coalition has recommended (among other things) modifications in the Causeway structure to provide hydrologic improvements to the flow patterns of the upper and lower Mobile Bay. In addition to the USACE funding efforts, ADCNR and ALDOT will develop a funding strategy to implement restoration activities along the Causeway per the CCMP. Additionally, ADCNR and ADEM are cited as participants in evaluating the hydrologic impacts to D'Olive Bay along with determine existing conditions and making recommendations for improvements / remediations.

Action HU-B3 - Better Control Erosion and Sedimentation ADCNR and ADEM Coastal Programs are finalizing their Section 6217 compliance to manage NPS pollution in the coastal zone. The Section 6217 program also involves the participation of ALDOT, the Alabama Forestry Commission, Alabama Cooperative Extension Service and other state entities in the promotion of best management plans and use of best available technologies to mitigate NPS pollution in road building, the forestry industry, marinas and boatyards, agriculture, urban uses and others.

Action HU-CI Increase Public Access and Eco-Tourism Opportunities. The CCMP states that ADCNR, Coastal Programs will conduct cost benefit analysis of increasing the availability of camping and recreation facilities on ADCNR land in Mobile Tensaw Delta, and encourage new development to provide public access to beaches and waterfronts. Alabama Tourism Commission will also participate in Sustainability workshops under **Task HU-C1.3**. ADEM and ADECA Coastal Programs will assist in **Task HU-C1.4 Clean Beaches** - for Blue Wave Program designation.

b. STATE AGENCIES current level of support of HUMAN USES ACTIONS

ADCNR Coastal Programs has continued to provide environmental planning assistance to local governments within the MBNEP area including information regarding "Smart Growth".

ADCNR Coastal Programs, ADEM, ALDOT, and Alabama State Docks are all agencies currently participating in the Mobile Bay Scenic Causeway Coalition. Having achieved State designation as a Scenic By Way, the Coalition is awaiting approval of a federal DOT grant to pursue completion of the Corridor Management Plan which is necessary for consideration as a National Scenic Byway.

The Section 6217 Program (currently being finalized by ADEM and ADCNR Coastal Programs) has a great potential to modify human behaviors relative to uses such as agriculture, forestry, marinas,

and the like that contribute to NPS pollution. Upon final approval by EPA and NOAA, funding will be made available to support numerous programs that will benefit the MBNEP area.

ADCNR Coastal Programs has participated in a round table discussion about Sustainable Tourism opportunities in April, 2002. This will be followed by subsequent workshops as well as participation in the "Clean Marina Program", the "Blue Wave Program", the "Green Resorts Program" and other pro-active industry enhancements opportunities.

An **Alabama Coastal Area Comprehensive Public Access Plan** was finalized in 2001 as an ADCNR Coastal Program Project guided by a steering committee inclusive of other state agencies. This Plan inventoried existing public access facilities and offered suggestions for additional facilities as well as comprehensive policies to be considered. Additionally, ADCNR Coastal Programs has provided numerous grants to coastal communities through NOAA funds (Section 306A -low cost construction) for the provision of coastal public access amenities. Currently, a canoeing trail in the Mobile-Tensaw Delta for local recreation as well as eco-tourism is being developed. Additionally, through federal funding, ADCNR Marine Resources Division provides boat ramps to increase access to salt water fishing areas while ADCNR Wildlife and Fresh Water Fisheries Division provides public access improvements in the Mobile-Tensaw Delta.

The *preliminary Mobile Bay Causeway Corridor Management Plan* calls for substantial amounts of low profile public access opportunities such as boardwalks, piers, scenic overlooks and interpretive signage. These amenities are designed to encourage eco-tourism and coordinate with the recently opened "Coastal Alabama Birding Trail" which has sites from Perdido Pass around Mobile Bay to Dauphin Island with appropriate interpretive signage.

The CIAP funding previously discussed, as administered by ADCNR Coastal Programs has allowed the State to acquire almost 50,000 acres in the Mobile-Tensaw Delta for the public. The value of this acquisition and similar smaller acquisitions within the MBNEP and Alabama Coastal Areas can not be over estimated. The Mobile-Tensaw Delta is a unique natural feature listed as a National Landmark and efforts to ensure ownership and management for public uses have become a priority.

c. STATE AGENCIES issues/ challenges in supporting HUMAN USES ACTIONS

In absence of a meaningful State Planning requirement, there is no mandated cooperation among State agencies. This is especially significant in trying to practice "Smart Growth" or any comprehensive land use planning.

Activities of some State agencies defacto direct growth decisions by the private and the rest of the public sector in absence of consideration of long term ramifications. ALDOT is an example and,

although they are required and cooperatively participate in the Metropolitan Planning Organization (MPO) which is housed at South Alabama Regional Planning Commission, this MPO service area does not include Baldwin County. Therefore, there is a gap in cooperative planning of infrastructure needs. Additionally, to be consistent with "Smart Growth" policies, encouragement should be given to alternative transportation means, such as light rail, to mitigate suburban sprawl, and with TEA-21 funding available (as well as numerous examples of better approaches to transportation being practiced in other areas), ALDOT should become a major partner of MBNEP in protecting against continued sprawl and its inherent mis-use of resources. The challenge to this approach is the tradition of influence within the MBNEP area by highway and bridge design engineering firms as well as the road-building lobby.

ACTION EPI-AI - ENHANCE PUBLIC EDUCATION AND OUTREACH

ADCNR- Coastal Programs is a partner with MBNEP in **Task EPI A1.3 Newsletter**.
(see Appendix for examples)

ACTION EPI B1 DEVELOP COMPREHENSIVE CITIZEN MONITORING AND REPORTING PROGRAMS

ADCNR -Coastal Programs and ADEM are principal State partners in the effort to develop a DIMS program to be housed at the Dauphin Island Sea Lab and in other means such as publications of distributing information to the public. Additionally, ADEM assists in funding citizens monitoring groups and verifies results when requested.

3. LOCAL/ COUNTY/ REGIONAL ENTITIES WITH CCMP IMPLEMENTATION ROLES

Baldwin County Commission
Baldwin County Health Department
City of Gulf Shores
City of Daphne
City of Fairhope
City of Mobile
City of Prichard
City of Spanish Fort
(MAWSS) Mobile Area Water and Sewer Service
MS4 individual permit holders
Mobile County Health Department
Mobile County Commission

Natural Resource Conservation Service -Baldwin County
Natural Resource Conservation Service - Mobile County
(AUMERC) Auburn University Marine Extension and Research Center
(DISL) Dauphin Island Sea Lab
(DISL-CPC) Dauphin Island Sea Lab Coastal Policy Center
(MASGC) Mississippi/Alabama Sea Grant Consortium

(USA) University of South Alabama
(GSMFC) Gulf States Marine Fisheries Commission
(SARPC) South Alabama Regional Planning Commission
(CAWPP) Coastal Alabama Clean Water Partnership
(GOMP) Gulf of Mexico Program

LOCAL, COUNTY, REGIONAL ENTITIES' ROLES IN WATER QUALITY ACTIONS

- a. ***CCMP WATER QUALITY ACTIONS*** to be supported by LOCAL, COUNTY, REGIONAL ENTITIES' contributions or activities

Action WQ-A1 Assess Data to Identify Water quality Problems- Task WQ-A1.2 Atmospheric Deposition Monitoring Support identifies both Mobile and Baldwin Counties as participants.

Action WQ-A3 Maintain Groundwater Quality - The CCMP cites local governments and utilities and SARPC as cooperators in this action.

Action WQ-4A Ensure Protection and Maintenance of High Quality Waters- Mobile and Baldwin County Commissions and local municipalities are cited as cooperators inasmuch as the local governments have the responsibility of responding to their citizenry and petitioning ADEM for consideration of local streams or waters for OAF designation.

Task WQ A.1.4 Watershed Group Formation and Facilitation in MBNEP's Year Six (6) Work Plan calls for AUMERC to be the Coordinator.

Action WQ-B1 - Reduce Excessive Nutrient Loading within the MBNEP - Local, County and Regional Entities including Mobile and Baldwin County's Soil and Water Conservation Districts, MS4 cooperating municipalities and the GOMP are all identified in the CCMP as participants.

Action WQ-C1 Reduce Opportunities for Pathogen Introduction - relies upon ADEM's efforts to encourage municipalities to perform self-audits and County Health Departments to review on-site sewage disposal regulations and if necessary, amend them to specifically address coastal site conditions. Additionally, municipal and county Storm water Management Plans as well as the plans of water and sewer interests are to identify and upgrade existing sanitary collection systems and reduce infiltration and overflow of the storm water systems by the sanitary systems.

Action WQ -D1 Assess Problems Related to Sediment Quality. Local governments are to encourage storm water planning and design to address water quality and quantity management; this is also a requirement of the MS4 permit.

Action WQ-D2-Provide for Safe Disposal of Hazardous Waste. Task WQ-D2.1 Household Hazardous waste Amnesty Day as described in the MBNEP Year Six (6) Work Plan cites Mobile and Baldwin Counties participation in the collection efforts (with CIAP funding)

b. LOCAL, COUNTY, REGIONAL ENTITIES current support of WATER QUALITY ACTIONS

Action WQ-A1 Assess Data to Identify Water quality Problems - Task WQ-A1.2 Atmospheric Deposition Monitoring Support: Mobile and Baldwin Counties are participating in the MBNEP's National Atmospheric Deposition Program with each donating one site and the site preparation work for the site. There are also plans for two additional sites.

Action WQ-A3 Maintain Groundwater Quality: Mobile County Health Department and Baldwin County Health Department are cooperators in managing groundwater quality as the permit on-site sanitary sewer installations (septic tanks).

Action WQ-4A Baldwin County has requested that the Tensaw River be reclassification as an Outstanding Alabama Water (however, ADEM found the River to not meet its criteria for the designation)

Action WQ- B3 Local municipal governments and Baldwin County can implement land development ordinances to require storm water detention / retention, use of BMPs on construction sites, buffers to water resources and the like. The ten (10) governments (plus ALDOT as the 11th Consortium member) participating in the Mobile Area MS4 permits have this requirement as a condition of the permit. Phase II of the MS4 procedure will capture the remaining areas.

Action WQ-C1 Baldwin and Mobile County municipal water and sewer utilities (as well as those that are "privately owned" have monitoring and reporting requirements relative to sewer spills into public water bodies. Identifying and upgrading sanitary collection systems to provide for adequate current and future wastewater flow capacity is essential. County Health Departments are responsible for on-site sewage disposal systems approvals, and can recommend more specific criteria to accommodate coastal conditions.

Action WQ - D1 The 11 members of the Mobile Area MS4 Storm water Consortium have storm water management responsibilities that address sedimentation included as part of their individual MS4 permits.

The City of Mobile maintains a staff position for a storm water inspector to ensure compliance with MS4. The City is also constructing a drainage way (the Carlisle Drainage Project) to improve the hydraulics, and reduce bank erosion and flooding.

To minimize storm water discharge, the City of Mobile repaved the Ladd Stadium parking lot with grass pavers in order to minimize impervious areas. The City of Mobile additionally is purchasing two new street sweepers to assist in storm water management.

Action WQ -D2- The Cities of Gulf Shores and Fairhope along with Mobile and Baldwin Counties have participated in MBNEP co-sponsored Amnesty Days. There are plans with CIAP funding to offer disposal of these waste as a county service.

c. LOCAL, COUNTY, REGIONAL ENTITIES issues/challenges in supporting WATER

Loadings Information derived from Action WQ-A2 as part of the TMDLs process, will need to be incorporated into NPDES permits, as well as the 10 governmental members of the Mobile Area MS4 Storm Water Consortium permits and Individual MS4 permits.

The areas not previously required to comply with MS4, are now having to come into compliance. The costs associated with the MS4 process can be a hardship for most small governments. It would seem appropriate to encourage a new "consortium" to share the consultant and lab expenses associated with developing the permit. MBNEP may be in a position to assist.

SARPC's role as regional entity capable of assisting local governments in planning and funding protection efforts could be strengthened. Particularly in Action WQ-B2 - Address Upstream Nutrient Inputs, SARPC can play a role in addressing impacts occurring outside the MBNEP area by developing cooperative agreements with other regional planning commissions to assist local governments in developing BMPs and by working with Counties' Soil Conservation Agencies, County Extension Services, and others in a South Alabama context.

LOCAL, COUNTY, REGIONAL ENTITIES' ROLES IN LIVING RESOURCES ACTIONS

- a. **CCMP LIVING RESOURCES ACTIONS** to be supported LOCAL, COUNTY, REGIONAL ENTITIES contributions or activities

Action LR-A1 Improve Monitoring of Key Living Resources. This CCMP Action gives AUMERC the responsibility to encourage appropriate agencies to develop monitoring programs of known potential nuisance species introduction.

Action LR-A2 Improve Monitoring of At-Risk Species. The CCMP indicates that a workshop will be hosted by MBNEP and participants will include the GOMP, DISL, and Universities in order to assess the need for any changes regarding current state regulations and enforcement.

Action LR-B1 Develop Management Plans for Develop Management Plans for Nuisance Species calls for a workshop of appropriate agencies including the GOMP, DISL and the Universities to investigate development and promotion of model programs to control or prevent the introduction of nuisance species.

Action LR-C1 Efficiently Measure Fishing Effort involved AUMERC examining how fishing effort is being measured in Alabama and other states and involved GSMFC among other cooperating entities in the investigation. AUMERC has finalized its portion of this Action.

Action LR-C2 Increase Fisheries Resources is a work effort involving the GOMP has a regional cooperator. **Task LR-C2 Oyster Reef Restoration** in the MBNEP Year 6 Work Plan follows the GOMP initiated program partnered by Auburn in the raising of oyster spat in protective cages on volunteer's waterfront property.

Action LR-C3 Manage Fishing Effort. This CCMP action identifies the Mississippi Alabama Sea-Grant Consortium (MASGC) as a partner in encouraging additional studies to determine the impact of bycatch on fish populations within the MBNEP area. GCMFC is also cited as a cooperator.

b. LOCAL, COUNTY, REGIONAL ENTITIES current support of *LIVING RESOURCES ACTIONS*

Action LR-C2: The Auburn University Shellfish Laboratory (AUSL) opened in August, 2001 at the Dauphin Island Sea Lab, as a facility of the Department of Fisheries and Allied Aquaculture, Auburn University. It's role is to perform necessary research to ensure sustainability of shellfish fisheries.

Gulf States Marine Fisheries Commission and the Gulf of Mexico Marine Fisheries Council are related regional entities sharing the objective of conservation, development, and full utilization of the fishery resources of the Gulf of Mexico. They coordinate state/federal programs including the Interjurisdictional Fishery Program (IJF) which was designed to develop management plans for transboundary stocks that migrate freely through state and federal jurisdictions; the Southeast Area Monitoring and Assessment Program (SEAMAP) which is a state/federal/university program; and other cooperative programs that collect, manage and disseminate statistical data and information on the Southeast Region's commercial and recreational fisheries.

Actions LR-B1 and LR C2 are supported by the Gulf of Mexico Program's efforts. The GOMP Shellfish Restoration Program which had the goal of "increasing Gulf shellfish beds available for safe harvesting by 10 percent." has played a large role in enhancing the MBNEP living resources through its funding that originated the "oyster gardening project". The GOMP also maintains Regional programs of interest to MBNEP such as the Aquatic Mortality Network and the harmful algal bloom tracking information exchange. GMNET is a network of public and private sector individuals and groups, government agencies, and universities organized to enhance the response to and information gained from mortality events in the Gulf of Mexico.

c. LOCAL, COUNTY, REGIONAL ENTITIES issues/challenges in supporting *LIVING RESOURCES ACTIONS*

Inadequate funding is the common concern shared by universities and Gulf Coastal regional programs to research, enhance or manage living resources within the MBNEP area. Local and county governments have not recognized the importance of their roles regarding how land use planning and regulation, design standards and conditioning development permits can assist in protecting living species --especially endangered species. However, the City of Orange Beach (which is outside the MBNEP area but in the Coastal area) has required "shielded" light fixtures to for the protection of the sea turtles.

ACTION EPI-AI - ENHANCE PUBLIC EDUCATION AND OUTREACH

The GOMP, AUMERC, MESC and the Universities are regional entities playing large roles in enhancing public education and outreach through their publications, web sites, workshops, grant funding availabilities, and participation with MBNEP on other projects.

ACTION EPI-B1- DEVELOP COMPREHENSIVE CITIZEN MONITORING AND REPORTING PROGRAMS

The GOMP, AUMERC, MESC and the Universities are all expected to be major participants in the DIMS program to be housed at the Dauphin Island Sea Lab.

LOCAL, COUNTY, REGIONAL ENTITIES' ROLES IN HABITAT MANAGEMENT ACTIONS

a. **CCMP HABITAT MANAGEMENT ACTIONS to be supported by LOCAL, COUNTY, REGIONAL ENTITIES contributions or activities**

Action HM -A1 Develop a Coastal Habitats Coordinating Team. Mobile County Parks and Wildlife Department and Baldwin County Planning Department will be participants on the Coastal Habitat's Coordinating Team. Other regional entities to be included are: DISL, AUMERC and GOMP.

Action HM-B1 Protect or Restore SAV Habitat - designates DISL and GOMP as cooperators and identifies MASGC as a participant in developing a "Boaters Education Program" and handbook.

Action HM-CI Maintain and/ or Improve Beneficial Wetland Function has heavy participation from DISL and GOMP as well as both Baldwin and Mobile Counties.

Task HM-C1.1 Habitat Mapping Project in the MBNEP Year Six (6) Work Plan has substantial financial support from GOMP with assistance by both Mobile and Baldwin Counties.

Action HM-D3 Address Shoreline Erosion - This CCMP Action designates USA Coastal Engineering Department as the consultant to develop engineered alternatives to bulkheading and pilot restoration projects to address shoreline erosion issues such as beneficial uses of dredged material for shoreline sustainability; offshore breakwaters with wetlands; constructed wetlands; and low-level riprap/bulkheads. The Gulf of Mexico Program is also cited as a regional entity cooperator.

Action HM-E1 Prevent Nesting Habitat Decline. In this CCMP Action, DISL is identified.

b. **LOCAL, COUNTY, REGIONAL ENTITIES current level of support of HABITAT MANAGEMENT ACTIONS**

Task HM-C1.1 Habitat Mapping Project in the MBNEP Year Six (6) Work Plan has begun with efforts underway to take infrared aerial photography of both Mobile and Baldwin Counties for the purpose of determining location and extent of wetlands vegetation.

Baldwin County began development of the "Baldwin County Wetland Conservation Plan" in 1999 which has evolved from an EPA Region 4 Advanced Identification of Wetlands (ADID) project initiated by Alabama Coastal Programs. The Baldwin County Wetlands Conservation Plan will

ultimately protect wetlands through local zoning and subdivision ordinances and other efforts. A Draft Wetlands Plan has been prepared and is in the process of being ground-truthed.

Action HM-D1 Assess Beach and Dune Habitat Loss - Local communities and counties are very concerned about beach and dune loss and most are delegated by ADEM to enforce ADEM's protection policies.

Action HM-E1 Prevent Nesting Habitat Decline - DISL has significantly assisted in preventing the decline of species nesting on Cat Island. GOMP sponsored the GEMS program (Gulf Environmental Management Sites) which has resulted in the designation of several significant habitat types in Coastal Alabama for this designation. Acquisition and management of these GEMS sites is an ongoing process by ADCNR.

Action HM-D3 Address Shoreline Erosion -The City of Mobile constructed a bank stabilization project on Spring Creek and Bolton Branch. Portions of the banks' slopes were eroding and gabion mattresses were used to prevent further erosion. The Carlisle Drainage Project will also reduce bank erosion. SARPC recently updated its Best Management Practices Workbook which contains erosion control measures.

c. LOCAL, COUNTY, REGIONAL ENTITIES issues/challenges in supporting HABITAT MANAGEMENT ACTIONS

Financial limitations are major issues and challenges facing local and county governments that need to maintain essential public services such as police and fire protection. Regional entities such as the DISL, AUMERC, the Universities and GOMP have education missions that serve to increase environmental stewardship of coastal area and MBNEP area habitats.

Wetlands Mitigation Banks need to be created within each watershed for the use of both public and private development mitigation needs. For instance, even the City of Mobile in completing the Carlisle Drainage Project must purchase mitigation credits for the necessary filling of an acre of wetlands. However, the credits will be purchased at the Weeks Bay Mitigation Bank (in Baldwin County).

LOCAL, COUNTY, REGIONAL ENTITIES' ROLES IN HUMAN USES ACTIONS

a. CCMP HUMAN USES ACTIONS to be supported by LOCAL, COUNTY, REGIONAL ENTITIES contributions or activities

Action HU-AI Develop and Implement Comprehensive Land Use Planning. The MBNEP CCMP states that SARPC and municipal governments and Mobile and Baldwin County will attempt to develop long-range strategies for consistent, enforceable, regional land and water use management. ("SMART GROWTH" strategies). Additionally, support of corridor and greenway plans to decrease and/or halt habitat fragmentation is encouraged.

Action HU-B1 Assess Hydrologic Effects of Development Practices. This action calls for participation of all local and county governments as well as SARPC and water and sewer services in an "MBNEP Hydrologic Review Panel". This panel will work towards a holistic, watershed-based approach to addressing environmental problems caused by poor land use practices.

Action HU-B2- Restore Natural Hydrologic Conditions identifies that DISL (in conjunction with other agencies) will conduct further assessments of the Mobile Bay Causeway's effect on health and abundance of aquatic species due to altered water flow patterns and/or salinity gradients. Auburn University is also identified as a regional cooperators in this task.

Action HU-B3 Better Control Erosion and Sedimentation. This CCMP Action states that Local Governments will coordinate with other entities to: establish criteria for water body buffer zones; develop and implement a water body bank conservation easement and /or buy out program; encourage the use of development setbacks from water bodies; assess the possibility of requiring drainage plans based on 15 to 25 year or greater storm events; establish slope design and stabilization requirements; erosion control requirements; consider impacts to surface waters when prioritizing and planning improvements to dirt roads; utilize alternative road surfacing materials in appropriate places; and prohibit development of new subdivisions that use dirt roads. Regional cooperators identified include SARPC and the Universities.

Action HU-C1 Increase Public Access and Eco-Tourism Opportunities. Local and county governments are listed as cooperators in this CCMP Action.

Task HU-C1.1 Public Access in the MBNEP Year Six (6) Work Plan describes MBNEP financial participation in public access improvements in a combination of several public access projects around Mobile Bay at Blakely State Historic Park and in the cities of Daphne, Gulf Shores, Orange Beach and Mobile.

Task HU-C1.2 Montlimar Canal Greenway Park is an innovative cooperative project that could be a "pilot" to inspire redevelopment of other unsightly drainage ditches into public access pathways and bikeways to bring citizens back to a natural waters edge environment while increasing protection of water quality.

Task HU-C1.3 EcoTourism/Sustainability Workshop describes new efforts to engage local, county and regional environmental interests with tourism industry representatives to identify ways to protect and sustain natural resources.

Task HU-C1.4 Clean Beaches proposes to act on at least one of the mechanisms to promote tourism and environmental sustainability - participation in the Blue Wave Campaign by local governments. (The City of Gulf Shores was just approved as a Blue Wave Beach designation May, 2002).

LOCAL, COUNTY, REGIONAL ENTITIES current support of HUMAN USES ACTIONS

Action HU-A1 Local municipal governments and Baldwin County can implement land use

ordinances and design standards to mitigate or minimize impervious development. Mobile County has the authority to implement subdivision regulations and flood plain zoning which could address site coverage limitations also. Flood Plain management programs are required to be in place in order for a municipality or County to have Federally insured flood protection available to replace its hazard-impacted infrastructure or available for its citizens to purchase. The minimum requirements in each jurisdiction's plan can be strengthened to include better site design and set-back

requirements. The City of Mobile has recently instituted a "Smart Growth Initiative" and has appointed the MBNEP Director and other MBNEP members to the steering committee.

Action HU-B2 The Mobile Bay Scenic Causeway Coalition includes representatives of Baldwin County and the municipalities of Spanish Fort, Daphne and Mobile. The efforts of the Coalition will encourage restoring natural hydrologic conditions to the Upper and Lower Mobile Bay area among other recommendations.

Action HU-B3 Local municipal governments and Baldwin County can prohibit dirt roads in new subdivisions. Baldwin County participated in a MBNEP demonstration project evaluating surface materials to reduce erosion, all MS4 permittees and urban uses under Section 6217 must minimize NPS erosion and sedimentation. The City of Mobile is actively trying to address erosion issues through the use of grass pavers where possible and the strengthening of drainage ditches with gabions. Mobile County has plans to initiate an erosion control program requiring land disturbance permits to mitigate storm water runoff.

Action HU-C1 The City of Mobile participated in a "Western Shore Public Access Plan" which focused upon natural areas of the waterfront and the Cities of Daphne, Fairhope, Gulf Shores and Baldwin County have instituted bicycle paths in natural areas for public access. Mobile County has provided low profile boardwalks with interpretive signage at Bay Front Park, and Dauphin Island has developed a bike path and several parks that feature signage interpreting the natural resources on each site.

Task HU-C1.2 Montlilar Canal Park has been designed and is awaiting authorization to begin. This project will be an important linkage in the City of Mobile's "Green Space Plan" which was recently completed as part of the City of Mobile's Tricentennial Celebration. The City of Mobile is also purchasing small properties to add to the green space inventory.

Task HU C1.3 will follow on to a sustainability tourism round table which was recently held with representatives of the Cities of Gulf Shores and Orange Beach; Baldwin County; and DISL Coastal Policy Center participating.

Task HU-C1.4 Clean Beaches Program includes Gulf Shores, Baldwin Co., Dauphin Island in an application for this tourism and ecology recognition. (The City of Gulf Shores has been designated a Blue Wave Beach in May, 2000)

**c. LOCAL, COUNTY, REGIONAL ENTITIES issues/challenges in supporting HUMAN
USES ACTIONS**

Increasing recognition of problems associated with poor land use practices that encourage sprawl and degradation of the natural environment while reducing the quality of life enjoyed by residents and visitors, has initiated numerous discussions at the local, county and regional levels about the need to advocate "Smart Growth."

Although there are important industry sectors that nationally have adopted "Smart Growth" as a

sensible philosophy -- notably the National Home Builders Association, significant and continued education outreach is needed to inform the public about the benefits of sustainable development practices. However, it is generally understood that many development professionals and builders do not support any land use controls. (Hence: no zoning in Mobile County). Therefore, the challenge for the MBNEP and Smart Growth advocates is to overcome the mis-interpretations associated with regulating land development (such as economic disasters).

Regionally, South Alabama Regional Planning Commission could play an important role in long range planning and development of holistic regional land use districts to accommodate 21st century thinking regarding transportation and economic development in a coastal Alabama context (as opposed to every jurisdiction requiring every use). The challenge for regionalism, of course, is its political palatability.

4. CITIZENS/ ENVIRONMENTAL GROUPS WITH CCMP IMPLEMENTATION ROLES

The following citizen/ environmental groups are identified as CCMP Stakeholders, Cooperators and/or members of **MBNEP COMMUNITY ADVISORY COMMITTEE** (formerly MBNEP Citizens Advisory Committee)

(ACF) Alabama Coastal Foundation
(AEC) Alabama Environmental Council
Alabama Ornithological Society
Baldwin County Environmental Advisory Board
Baldwin County Trailblazers
Bass Anglers Sportsman Society
Bay Area Fly Fishers Club
Boy Scouts of America
(GCCA)Gulf Coast Conservation Association
(DRCR)Dog River Clearwater Revival
Ducks Unlimited
Dock Watch
Envision Mobile Baldwin
Friends of Dauphin Island Audubon Sanctuary
Friends of Weeks Bay

Mobile/Baldwin United
Mobile Bay Audubon Society
Mobile Bay Watch/ Mobile Bay Keeper
Mobile County Wildlife and Conservation Association
Mobile Scenic Causeway Coalition
Mobile Tricentennial Commission
(TNC) The Nature Conservancy
Recreational Boating Association
South Alabama Birding Association

CITIZENS / ENVIRONMENTAL GROUPS' ROLES IN WATER QUALITY ACTIONS

a. **CCMP WATER QUALITY ACTIONS** to be supported by **CITIZENS/ ENVIRONMENTAL GROUPS** contributions or activities

Action WQ-A1 - Assess Data to Identify Water Quality Problems - Among the cooperators listed in the CCMP are Mobile Bay Watch/ Mobile Bay Keeper, and the Alabama Coastal Foundation.

Task WQ A1.2 Atmospheric Deposition Monitoring Support in the MBNEP Year Six (6) Work Plan responds to recent concerns expressed by scientists, the media and the **MBNEP COMMUNITY ADVISORY COMMITTEE** (formerly the Citizens Advisory and Technical Advisory Committees.)

Task WQ A1.3 Water Monitoring Program is a program also requested by numerous citizen groups such as MBW/MBK, the ACF and the **MBNEP COMMUNITY ADVISORY COMMITTEE**.

Action WQ A4 Ensure Protection and Maintenance of High Quality Waters designates a role for the **MBNEP COMMUNITY ADVISORY COMMITTEE** to perform in developing local planning teams for stream segments that may meet the criteria necessary for OAW classification.

Task WQ A1.4 Watershed Group Formation and Facilitation includes continued support of existing grassroots watershed associations such as the "Dog River Clearwater Revival" along with assistance to additional groups as they form.

Action WQ - B1 Reduce Excessive Nutrient Loading Within the MBNEP. The MBNEP CCMP lists MBW/MBK and the "Master Gardeners Program" as the citizens/environmental groups to cooperate in this action.

Action WQ-C1 Reduce Opportunities for Pathogen Introduction identifies MBW/MBK as a citizens/ environmental group cooperating entity.

Task WQ-C1 Coastal Onsite Sewage Disposal System (OSDS) Education Project in MBNEP

Year Six (6) Work Plan describes developing an education program specifically to provide the public with information about the maintenance needs of onsite wastewater systems as well as alternative techniques.

Action WQ-D2 Provide for Safe Disposal of Hazardous Waste is a program with ACF as a principal partner in offering the public the opportunity to properly dispose of household and agricultural hazardous waste during "Amnesty Days" (which are co-sponsored by MBNEP.)

b. CITIZENS/ ENVIRONMENTAL GROUPS current support of WATER QUALITY ACTIONS

Action WQ -A1 The Mobile Bay Watch/ Mobile Bay Keeper citizens organization has been active in pursuing water quality violators (particular sewage discharges) with litigation efforts. A law suite settlement has resulted in a court order requiring MAWSS to improve its processing capabilities among other mitigation efforts. Additionally, Mobile Bay Keeper has a monitoring effort conducted

by volunteers in boats in the MBNEP area. These volunteers have been trained to identify and report violations.

The Alabama Coastal Program has been active in promoting citizens to volunteer for training and to consistently function as water quality monitors. ACF also reports the results to the public. To date, there are _____ citizen monitors throughout the Alabama Coastal and the MBNEP area.

Action WQ-C1: The Alabama Coastal Foundation has recently instituted enterococcus bacterial monitoring at some of its monitoring sites.

Additionally, citizens watershed groups such as Dog River Clearwater Revival have been active in looking for sewage line breaks, alerting ADEM, the Health Department and MAWSS.

Dog River Clearwater Revival with assistance of AUMERC in cooperation with MAWSS, distributed information flyers about proper use of sewer systems (not disposing of grease,etc) through the monthly MAWSS billing statements.

The Dog River Clearwater Revival has instituted a Dog River Guardians Program to award citizens and businesses who practice "good housekeeping" on their properties to better protect the water quality of Dog River and its tributaries.

Action WQ- D1 MBW/MBK has been instrumental in bringing information to the public regarding air emissions and particularly mercury deposition into MBNEP waters and sediments. The efforts of this environmental group have helped result in MBNEP's initiation of the National Atmospheric Deposition Program (NAPD) National Trends Network (NTN) monitoring site and a Mercury Deposition Network (MDN) site. This group also co-hosted the previously discussed Mercury Forum held in May, 2002.

Action WQ-D2 The Alabama Coastal Foundation has maintained Annual Amnesty Days as part of its sponsored program for five years. Local watershed groups such as Dog River Clearwater Revival and Friends of Weeks Bay have also assisted in these efforts.

c. CITIZENS/ ENVIRONMENTAL GROUPS issues/challenges in supporting WATER QUALITY ACTIONS

"Can I swim in the Waters? Can I eat the fish?" are two major questions (and the prevailing issues) that citizens continue to ask of scientists and resource managers. This, in fact, is the MBNEP's raison d'être. The challenge is to always keep citizens active, involved and understanding that a positive difference can be made by their actions.

CITIZENS / ENVIRONMENTAL GROUPS' ROLES IN LIVING RESOURCES ACTIONS

a. CCMP LIVING RESOURCES ACTIONS to be supported by CITIZENS/ ENVIRONMENTAL GROUPS' Contributions or Activities

Action LR-A1 Improve Monitoring of Key Living Resources. This MBNEP action cites The Nature Conservancy as responsible for reviewing existing information and making recommendations for measuring and monitoring biodiversity, developing programs for better protection of endangered/threatened species on private and public coastal lands, and developing guidance and recommendations to ensure species friendly development. "Expert Wildlife Solutions" is identified as the entity to evaluate current monitoring and make recommendations for the American alligator.

Action LR-B1 Develop Management Plans for Nuisance Species - identifies MBW/ MBK and the Mobile Bay Scenic Causeway Coalition as two environmental / citizens groups to cooperate in this action.

Action LR-C2 Increase Fisheries Resources, Task LR-C2.1 Oyster Reef Restoration, a project of MBNEP's Year Six (6) Work Plan continues the volunteer assisted research project partnered by Auburn, MBNEP and GOMP. The project consists of raising oyster spat in protective cages on volunteers' waterfront properties until the oysters reach a juvenile stage. At that point, the oysters can be collected and placed on degraded reefs.

Action LR-C3 Manage Fishing Effort. This task involves the cooperation of commercial and recreational fishermen's organizations such as the Alabama Seafood Association, CCA, BASS, etc. in considering plans to better manage fishing effort such as possible limited entry for stressed fisheries in concert with commercial fishers, encouragement of catch and release as a means to control recreational fishing effort and the like.

b. CITIZENS/ENVIRONMENTAL GROUPS current support of LIVING RESOURCES ACTIONS

Action LR-A1 The Sea Turtle Volunteer Program in conjunction with the Gulf Shores State Park

monitors threatened and endangered sea turtles along Alabama's Gulf Coast during the sea turtle nesting season which begins around May 1 each year. Loggerhead sea turtles, Keep's Ridleys and green sea turtles are assisted by volunteers as they make their way onshore during the nesting season. Volunteers also help hatchlings return to the Gulf.

Action LR-B1 "Dock Watch" is the Dauphin Island Sea Lab's jellyfish monitoring effort involving volunteers trained by Dr. Monty Graham.

"Keep Mobile Beautiful" is considering a project to remove invasive water lilies clogging the Three Mile Creek area of Prichard which is part of the Mobile Tricentennial Celebration's Greenways program.

Action LR-C2 The Alabama Wildlife Federation along with the Department of Conservation and Natural Resources, Marine Resources Division, Mobile County Wildlife and Conservation Association, Coastal Conservation Association, Mobile County Commission, and Woolpert LLP are participating in the "The Roads to Reefs" program which will benefit many inshore fish species such as spotted sea trout, white trout, and flounders by using old concrete pipe to make inshore artificial reefs.

Action LR-C3 CCA is participating in the Derelict Crab Trap Removal project previously discussed.

c. CITIZENS/ ENVIRONMENTAL GROUPS issues / challenges in supporting LIVING RESOURCES ACTIONS

Tremendous potential exists to tap the numerous citizens and environmental groups in the area of living resources protection. It is expected that attention will be directed towards building coalitions of groups within the MBNEP format in the coming years.

CITIZENS / ENVIRONMENTAL GROUPS' ROLES IN HABITAT MANAGEMENT ACTIONS

a. CCMP HABITAT MANAGEMENT ACTIONS to be supported by CITIZENS / ENVIRONMENTAL GROUPS contributions or activities

Action HM-A1 Develop a Coastal Habitats Coordinating Team. This MBNEP Action identifies MBW/MBK, TNC, and Coastal Land Trust as environmental / citizens groups to participate on a "Coastal Habitats Coordinating Team".

Action HM-B1 Protect or Restore SAV Habitat; Task HM-B1.2 SAV Workshop and Boaters Guide - as described in the MBNEP Year Six (6) Work Plan, The Bay Area Fly Fishers Club will assist in the creation and distribution of a map identify in submerged aquatic vegetation along the Alabama Coast, in Mobile Bay and in the Delta as well as descriptions of what boaters can do to prevent loss of SAV.

Action HM-CI Maintain and or Improve Beneficial Wetland Function - cites that USFWS will sponsor and coordinate volunteer marsh-planting efforts and monitor and evaluation restoration efforts.

Task HM C1.2 Habitat Workshop Public Outreach: The MBNEP Year Six (6) Work Plan describes a workshop to educate the public on the results of the mapping project when it is finished, give information on plant identification and discuss creation of micro- habitats on private property

Task HM C1.4 Habitat Restoration Vegetation Planting in the MBNEP Year Six (6) Work Plan calls for the recruitment of volunteers to assist in planting trees, coastal vegetation or submerged aquatic vegetation. A pilot program will begin this year to collect SAV seeds for planting next summer.

Action HM -EI Prevent Nesting Habitat Decline. This action will implement a citizen "watchdog" program to encourage and support improved enforcement of existing state and federal regulations relating to colonial and migratory bird nesting habitat; coordinating with the Boy Scouts of America for placement of shell, cavity nesting boxes, and nesting siting; and establishing an adopt-a colony effort and implement recommended preservation and/or exchange programs for acquisition and/or preservation of maritime forests and scrub/shrub habitats. Identified environmental / citizens groups to cooperate include the Friends of the Dauphin Island Audubon Sanctuary, Alabama Ornithological Society, South Alabama Birding Association.

b. CITIZENS/ENVIRONMENTAL GROUPS current support of HABITAT MANAGEMENT ACTIONS

Action HM-C1 Approximately 1.5 acres of bull tongue and hardstem bullrush have been planted on tidal bars in Mobile Bay under the guidance of the U.S. Fish and Wildlife Service. Volunteers were from Mobile County Wildlife and Conservation Association and the Gulf Coast Joint Venture of the North American Waterfowl Management Plan.

Action Item HM-D-3 Address Shoreline Erosion - Friends of Weeks Bay participated in a MBNEP demonstration project that successfully used old Christmas trees to collect sediment and re-establish an eroding shoreline of Weeks Bay. Volunteers participated in a Dauphin Island Park erosion mitigation effort as well.

Dog River Clearwater Revival volunteers will be participating with Dr. Scott Douglass of the USA Engineering Department in the use of sand-filled geotextile tube breakwaters as bulkheads for shoreline stabilization in front of private waterfront properties in the Dog River Watershed. Wetlands will be established behind the tubes which are designed to reduce wave energy and cause the build-up of sediment that could be stabilized with native wetland plants.

Action HM -EI Volunteers from the Mobile County Wildlife and Conservation Association working in conjunction with the Alabama Department of Conservation and Natural Resources and the U.S. Fish and Wildlife Service have installed hundreds of wood duck boxes along the Upper Delta.

c. **CITIZENS / ENVIRONMENTAL GROUPS issues / challenges in supporting HABITAT MANAGEMENT ACTIONS**

Generally citizens' ignorance of the value of wetlands habitats of all types is the biggest challenge although considerable progress has been made since the beginning the MBNEP and with efforts of MBNEP partner organizations. Like the Living Resources Issue, Habitat Management has tremendous potential for gaining the support of citizens and environmental groups because it the enhancement projects and their results are often both visible and tangible.

CITIZENS / ENVIRONMENTAL GROUPS' ROLES IN HUMAN USES ACTIONS

a. **CCMP HUMAN USES ACTIONS to be supported by CITIZENS / ENVIRONMENTAL GROUPS Contributions or Activities**

Action HU-AI- Develop and Implement Comprehensive Land Use Planning. This MBNEP Action states that "Mobile / Baldwin United" and Envision Mobile Baldwin" will develop sustainable development indications.

Action HU-B1I - Assess Hydrologic Effects of Development:. Included within a "Hydrologic Review Panel" to be established by MBNEP are "Envision Mobile/Baldwin", MBW/MBK and the Mobile Bay Scenic Causeway Coalition as environmental/ citizens groups.

Task HE-B1.1 Causeway Hydrologic Modification: This task was requested by numerous citizens / environmental groups - specifically, MBW/MBK and the Mobile Bay Scenic Causeway Coalition.

Task B1.2 Bulkhead Survey is contained in the MBNEP Year Six (6) Work Plan as a follow on to a USA geography graduate student's inventory and analysis of types of bulkheads and materials utilized along Rabbit Creek and the Dog River Watershed.

Action HU-B2 Restore Natural Hydrologic Conditions. This MBNEP action was a request of numerous citizens and environmental groups interested in re-creating the natural flow patterns of the waterways on both sides of the causeway structure. The Mobile Bay Scenic Causeway Coalition has been working on a Corridor Management Plan that advocates opening up sections of the Causeway to increased flow as recommended by the scientific community. It has recently been announced by Governor Siegelman that USACE and DOT will participate in a \$5.9 million project to open two sections of the Mobile Bay Causeway.

Action HU-B3 Better Control of Erosion and Sedimentation - The CCMP cites the Weeks Bay Watershed Program as a citizens- based participant. The CCMP also identifies "dirt road owners" as cooperators in this Action

Action HU-C1 Increase Public Access and Eco-Tourism Opportunities - In the CCMP, MBW/MBK is identified as a the citizens/environmental group cooperator in this Action.

Task HE-C1.2 Montlimar Canal Greenway Park - In conjunction with a chemical company remediation agreement, the Dog River Clearwater Revival along with the Mobile Tricentennial Celebration Commission are planning the creation of a "greenway park" paralleling the Montlimar Drainage Canal. This park will serve as the initial link in the City's plans to develop an extensive network of greenway trails in connection with its Tri-centennial celebration.

Task HE-C1.3 EcoTourism/Sustainability Workshop - The Alabama Coastal Foundation has co-sponsored a "round table" discussion with participants agreeing to the need to continue to investigate opportunities and challenges inherent in maintaining both the Coastal Area and MBNEP Area tourism industry and the environmental integrity that creates tourists' interests.

Task HE-C1.4 Clean Beaches As part of tourism sustainability ACF will also assist in promoting "The Blue Wave Campaign" which certifies beaches as having the highest environmental quality. (The City of Gulf Shores recently received this designation). Other mechanisms to support sustainable tourism include a "Clean Marina Program", "Green Resorts Program" and the like.

b. CITIZENS / ENVIRONMENTAL GROUPS current support of HUMAN USES ACTIONS

Action HU-B3 efforts by environmental / citizens groups include *grassroots, inc's* realtor education efforts and workshops held for Mobile Mayor Mike Dow's Planning and Engineering staff and invited guests relative to riparian areas management incentives such as volunteer conservation easements.

Weeks Bay Watershed and the Dog River Clearwater Revival have also sponsored information

outreach regarding voluntary conservation easements as well as the benefits associated with vegetation 12 feet to the water's edge.

DRCR volunteers will also assist Dr. Scott Douglass in his innovative erosion control demonstration grant which will place wetlands in sediment created by use of a sand and soil filled net, tube like "breakwater" in front of volunteer's waterfront property.

Similarly, the Friends of Weeks Bay participated in an erosion control APDP where old Christmas trees were secured near an eroding bank to increase sedimentation and revegetation.

Action HU-C1- The preliminary Corridor Management Plan of the Mobile Bay Scenic Causeway Coalition plans for and emphasizes the need for numerous low impact public access opportunities along the Causeway.

The "Baldwin County Trailblazers" have been instrumental in receiving grants and advocating a walking/biking trail along Mobile Bay.

Upcoming Realtor Education Courses by *grassroots inc.* will focus upon "Smart Growth" planning and design techniques that are also more profitable for real estate investors and developers.

The "Dog River Dog Paddle" held in May, 2002 was initiated as an idea of the Dauphin Island Parkway Merchants Association. This effort, co-sponsored with the Dog River Clearwater Revival was to create additional interest and encourage uses of the waterways (and ultimately better environmental stewardship of Dog River, its tributaries, and it's watershed).

**c. CITIZENS / ENVIRONMENTAL GROUPS issues / challenges in supporting CCMP
Human Uses Management Actions**

Citizens / Environmental Groups are the best long range asset for the success of the MBNEP. The **MBNEP's COMMUNITY ADVISORY COMMITTEE** (formerly the Citizens Advisory Committee) will increasingly serve as a "conduit" or "umbrella" to these groups in both providing information and it relaying requests.

The over-riding need to support "Smart Growth" is both an issue and a challenge. Continued information and on-the-ground substantive efforts are needed to educate the general public (as well as the policy makers).

Coordinated, consistent, and accurate education and outreach is also a continuing need.

ACTION EPI-AI - ENHANCE PUBLIC EDUCATION AND OUTREACH

In addition to **MBNEP's COMMUNITY ADVISORY COMMITTEE** (formerly the Citizens Advisory Committee), numerous citizens/environmental organizations are major players in participating in public education and outreach endeavors including but not limited to: Coastal Clean-up, Coastweeks, Earth Day, Dog River Dog Paddle, Keep Mobile Beautiful; watershed groups, DISL docents' programs.

ACTION EPI-B1 DEVELOP COMPREHENSIVE CITIZEN MONITORING AND REPORT PROGRAMS

The DIMS project to be housed at Dauphin Island Sea Lab will designed to be "citizens-user-friendly"

The growing numbers of people participating in water quality monitoring, "Dock Watch", "Oyster-Gardening" and other endeavors is a good indicator of citizens' interests in understanding their environmental conditions..

5. BUSINESS AND INDUSTRY INTERESTS WITH CCMP IMPLEMENTATION ROLES

The following **BUSINESS & INDUSTRY** Interests have been identified as CCMP Stakeholders and cooperators:

Alabama Gulf Coast Marina Owners Association
Alabama Gulf Coast Visitors and Convention Bureau

Alabama Pulp & Paper Council
Alabama Power Company
Alabama Seafood Association
Associated Builders and Contractors (ck this)
Baldwin County Board of Realtors
Baldwin County Economic Development Alliance
Baldwin County Homebuilders Association
Dauphin Island Parkway Merchants Association
Eastern Shore Chamber of Commerce
The FORUM
Marine Manufactures Association
Mobile Area Board of Realtors
Mobile Area Homebuilders Association
Nurserymen's Association
Shipping Agents
Shell Refinery

BUSINESS AND INDUSTRY INTERESTS ROLES IN WATER QUALITY ACTIONS

- a. **CCMP WATER QUALITY ACTIONS** to be supported by **BUSINESS AND INDUSTRY INTERESTS** contributions or activities

Action WQ-A1 Assess Data to Identify Water Quality Problems: Tetra Tech Inc. is the consulting firm under contract to develop the preliminary loadings budget using existing data and to develop a mathematical model capable of predicting water quality parameters and sediment deposition and movement. The establishment of total maximum daily loads (TMDLs) and the watershed's assimilative capacity is essential in determining the impacts of long-term growth. It is

reasonable to expect that business and industry interests will be impacted by permit decisions based upon the findings of this Action. Those identified in the CCMP include: The Forum, Eastern Shore Chamber of Commerce, Baldwin County Economic Development Authority, Mobile Area Chamber of Commerce.

Action WQ-B1 Reduce Excessive Nutrient Loading within the MBNEP. The CCMP identified cooperators include, golf courses, lawn care service associations, and Mobile Nurserymen's Association.

Action WQ-C1 Reduce Opportunities for Pathogen Introduction - Shipping Agents are identified in the CCMP as Business/ Industry cooperators.

- b. **BUSINESS AND INDUSTRY INTERESTS** current level of support of **WATER QUALITY**

ACTIONS

The Nurserymen's Association has published a BMP manual, and the Alabama Homebuilders Association has published an erosion control booklet that is being distributed by the Mobile Area Homebuilders Association.

Action WQ-C1 Reduce Opportunities for Pathogen Introduction - As a result of the Clean Vessel Program which offers 75% federal funding, many marinas facilities in the Alabama Coastal Area and MBNEP area now have MSD pump out facilities and many more have applications in to be funding.

c. BUSINESS AND INDUSTRY INTERESTS issues/ challenges in supporting WATER QUALITY ACTIONS

Support is expected relative to best management practices and best available technologies as produced and delivered through ADEM and ADCNR Coastal Programs Section 6217 programs particularly in the industries such as marinas and boatyards that directly benefit from clean water efforts.

Chambers of Commerce and Economic Development Authorities' marketing of industrial sites and targeting businesses and industries to locate within the MBNEP area will likely be impacted upon completion and implementation of TMDL discharge emission limits.

Preliminary investigations and meetings with industry officials regarding the development of a Special Area Management Plan (SAME) for the area around the Theodore Industrial Canal have not been supported by the industries in place now. Although substantial amounts of emissions are permitted in this area, a cumulative impact study has not been performed, and the only Environmental Impact Statement (EIS) is over 25 years old and grossly obsolete; many industry representatives do not feel a need to enter into a SAME process at this time.

BUSINESS AND INDUSTRY INTERESTS' ROLES IN LIVING RESOURCES ACTIONS

- a. **CCMP LIVING RESOURCES ACTIONS** to be supported by **BUSINESS AND INDUSTRY** contributions or activities

ACTION LR-C. - Manage Recreational and Commercial Fishing Effort. The Alabama Seafood Association is identified as a Business and Industry Cooperator for this Action of the CCMP

- b. **BUSINESS/INDUSTRY INTERESTS** current level of support of **LIVING RESOURCES ACTIONS**

Although not specifically identified as cooperators in **Action LR-A1 - Improve Monitoring of Key Living Resources**; or **LR-A2 Improve Monitoring of At Risk Species**; The Alabama Gulf Coast Convention and Visitors Bureau actively promotes the Sea Turtle monitoring program of the USF&W service and along with the Gulf Coast Chamber of Commerce is actively soliciting eco-tourism tour businesses. Two eco-tourism guide businesses have developed that utilize the Mobile-Tensaw Delta as their "business sites" and are supportive of plans that will sustain the living resources of the MBNEP area.

RE: Action LR-B1- Develop Management Plans for Nuisance Species. Similarly, the Mobile Bay Scenic Causeway Coalition with a membership that includes the local businesses of the Causeway area has identified the removal of nuisance species such as fragmites and Chinese Tallow (popcorn) trees as a strategy in the preliminary Corridor Management Plan for the Causeway.

Throughout significant wetlands areas of Mon Louis Island in South Mobile County, Shell Oil has entered into management plans to eliminate cogon grass and other invasive species through controlled burns with The Nature Conservancy.

Action LR-C2-Increase Fisheries Resources is a CCMP Action in which professional fishermen, oystermen, and shrimpers are vitally interested. Oystermen are very supportive of the State's efforts to plant shell areas and fishermen support the artificial reef programs.

Action LR-C3 - Manage Recreational and Commercial Fishing Effort are both CCMP Actions also of natural interest to this industry's members, and their participation in management decisions and efforts is essential. The Alabama SeaFood Association is also participating in the upcoming "Derelict Crab Trap Removal Program".

- c. **BUSINESS AND INDUSTRY INTERESTS** issues / challenges in supporting **LIVING RESOURCES ACTIONS**

Conflicts among professional fishermen, oystermen, and shrimpers; between professional and recreational fishermen; between the industry and the regulators of the industry are continuing challenges. Fortunately, in the case of management plans, history has proven that catch restraints

and limits ultimately works in favor of those whose living is made from the sea, but some traditional methods such as use of gill nets continue to be issues needing resolution.

BUSINESS AND INDUSTRY INTERESTS ROLES IN HABITAT MANAGEMENT ACTIONS

a. **CCMP HABITAT MANAGEMENT ACTIONS** to be supported by **BUSINESS/INDUSTRY INTERESTS** contributions or activities

Action HM-C1 - Maintain and/or Improve Beneficial Wetland Function - The CCMP states that local nurseries will be encouraged to grow marsh plants adapted to Mobile Bay.

Task HM-C1.3 - Coastal Counties Wetlands Conservation Plan Implementation in the MBNEP in the Year Six (6) Work Plan melds the ADCNR Coastal Programs policy document with the CCMP so that mutual objectives can be met with a synergy in implementation efforts. Participants on the CCWCP team included representatives of the fishing Industries and the real estate industry.

Action HM-D1 - Assess Beach and Dune Habitat Loss identifies real estate associations as cooperators in the CCMP.

Action HM-D3 - Address Shoreline Erosion identifies the Alabama Gulf Coast Chamber of Commerce as a cooperator in the CCMP.

b. **BUSINESS/ INDUSTRY INTERESTS** current level of support of **HABITAT MANAGEMENT ACTIONS**

Action HM-C1 Todds Nursery, a generations-old enterprise in the MBNEP area is growing native wetland type plants as described in the Action.

Actions HM-D1 and HM-D3 - Address Shoreline Erosion: Members of the real estate industry and the Home Builders Associations among other professional groups have received Board of Realtor's Certified CEU program credits for attending *grassroots inc's* courses of "Sand Castles" and "Water Runs Down Hill" .

Although not identified in the CCMP, the Gulf Coast Convention and Visitors Bureau has participated in **Action HM-E1 - Prevent Nesting Habitat Decline** with its co-sponsorship of Alabama Birding Trail.

c. **BUSINESS AND INDUSTRY INTERESTS** issues/challenges in supporting **HABITAT MANAGEMENT ACTIONS**

It is reasonable to believe that certain habitat management actions such as those that can enhance the eco-tourism industry will receive wide support. However, habitat management actions such as those that protect wetland habitats from being developed into residential, commercial and industrial uses will likely still be resisted. The challenge is to incorporate habitat management into sound land use planning using "Smart Growth" techniques that do not necessarily negatively impact the

development industry's profit. Some of these techniques include but are not limited to: clustering of buildings away from wetlands areas, voluntary riparian easements programs (with inherent income tax incentives), re-development tax credits and other such incentives.

BUSINESS AND INDUSTRY INTERESTS' ROLES IN HUMAN USES ACTIONS

a. CCMP HUMAN USES ACTIONS to be supported by BUSINESS/ INDUSTRY INTERESTS contributions or activities

Action HU-A1 Develop and Implement Comprehensive Land Use Planning identifies Baldwin County Economic Development Authority, Chambers of Commerce (Mobile Baldwin United), and the Homebuilders Association as cooperators.

Action HU-B2 - Restore Natural Hydrologic Conditions identifies the Mobile Bay Scenic Causeway Coalition (many of the members are business owners) and "Envision Mobile/Baldwin" as contributors.

Action HU-C1 - Increase Public Access and Eco-Tourism Opportunities. This task identifies: the Mobile Bay Scenic Causeway Coalition (memberships includes many business owners); Convention and Visitors Bureaus, and the Chambers of Commerce.

AtoFina Chemical Company, responsible for a remediation project, is working with the MBNEP, Dog River Clearwater Revival, and the Mobile Tricentennial Celebration Commission in **Task HU-C1.2 Montilimar Canal Greenway Park** as part of the MBNEP Year Six (6) Work Plan.

Task HU-C1.3 EcoTourism/Sustainability Workshop in the MBNEP Year Six (6) Work Plan requires considerable participation with the Convention and Visitors Bureaus and Chambers of Commerces.

Similarly **Task HU-C1.4 Clean Beaches** has the same cooperators identified in the CCMP.

b. BUSINESS AND INDUSTRY INTERESTS current support of HUMAN USES ACTIONS

Action HU-B3 Better Control Erosion and Sedimentation. The Mobile Area Homebuilders Association participated with MBNEP and *grassroots inc.* in an erosion control demonstration project utilizing state-of-the art erosion control matting on new home sites during a Spring Parade of Homes.

The Alabama Home Builders Association has published and distributed an erosion control manual for home builders and other contractors. And the National Home Builders Association has adopted "Smart Growth" as part of its agenda.

As part of their licensing requirements, hundreds of real estate professionals and developers within

the MBNEP area have taken continuing education courses offered by *grassroots inc.* including: "Sand Castles" which features erosion issues and "Water Runs Down Hill" which also discusses watershed issues including erosion and sedimentation. These courses are accredited and supported by the Alabama Real Estate Commission and the Mobile Area Association of Realtors.

Action HU-C1 Increase Public Access and Eco-Tourism - The Alabama Gulf Coast Convention and Visitors Bureau has been an active a sponsor of the Alabama Coastal Birding Trail and coordinated a "grand opening" celebration in conjunction with Earth Day activities.

The "Dog River Dog Paddle" initiated as an idea of the Dauphin Island Parkway Merchants Association which was co-sponsored by the Dog River Clearwater Revival and supported by MBNEP was held in May 18, 2002.

c. BUSINESS AND INDUSTRY INTERESTS issues/challenges in supporting HUMAN USES ACTIONS

Responsible business leaders recognize the intrinsic dependence upon a natural environment of the highest quality. This is true of all those making a living in the tourism industries, the building industries and all of the spin-off businesses that support and are supported by these industries. Even the so called "smoke stack" industries have an interest in the environment and the general quality of life in this area because it relates directly to their abilities to entice their upper and middle managers to re-locate here from other areas.

"Envision Mobile/Baldwin", an activity of Mobile/Baldwin United and supported by local Chambers of Commerce has developed sustainability indicators for our area. Primarily they focus upon economic development activities and upon community issues although there are some that generally address the environment. It may be prudent to ask these entities to "re-visit" their sustainability indices and consider actions identified in the CCMP.

ACTION EPI-AI - ENHANCE PUBLIC EDUCATION AND OUTREACH

Almost all industry or professional associations such as (but not limited to) Associated Builders and Contractors; Alabama Seafood Association; Homebuilders Association, Realtors Association, Chambers of Commerce, Convention and Visitors Bureaus and the like are conduits for the distribution of environmental information and education through their membership newsletters, workshops and other events.

Additionally, many representatives of industries, such as Alabama Power often participate in plan development and are members of environmental entities' advisory boards.

Industry employee groups also regularly participate in events such as the annual Coastal Clean Up, Earth Day and the like.

6. CORE NEP STAFF WITH CCMP IMPLEMENTATION ROLES

The MBNEP Program Office staff plays an important coordination role and support role in the CCMP implementation. The efforts include but are not limited to support of committees, program planning, identification of additional funding sources for the implementation of CCMP Actions and tasks, project contract procurement and coordination, interagency coordination and communication, and administrative coordination with EPA Region 4 and Headquarters.

Although the MBNEP Core Staff only includes the Director, the Science Coordinator, the Public Outreach Coordinator, and the Administrative Assistant, the synergy created by this "team" and the working relationships developed among the Policy Committee, the Management Committee and the Community Advisory Committee (formerly the CAC and TAC) create an enhanced level of engagement in the implementation actions of the CCMP.

a. CCMP ACTIONS to be supported BY MBNEP CORE STAFF contributions or activities

Every CCMP action is assigned to one of the core staff for coordination and assistance, and it is not unusual for the Science Coordinator and the Public Outreach Coordinator to share coordination responsibilities for some of the "cross-cutting" Actions and Tasks described in the Annual Work Plans.

b. MBNEP CORE STAFF'S current level of implementation support of MANAGEMENT ACTIONS

The level of coordination effort is dependant upon the specific needs of the Action or Task and can range from direct overview and guidance in the performance of contracted services through on-the-ground participation in working as a member of a committee. Additionally, small amounts of NEP funding through direct project identification or min-grants often provide the seed necessary to "jump start a project".

c. MBNEP CORE STAFF'S issues/ challenges in supporting CCMP MANAGEMENT ACTIONS

The minimum level of both staff members and funding is a major challenge. The "laissez faire"

and resistant-to-change mind set, so prevalent in our area, creates challenges for the MBNEP Core Staff also.

7. EPA REGION 4 and EPA HEADQUARTERS CCMP IMPLEMENTATION ROLES

EPA Regional 4 staff assistance has been invaluable in guidance of the MBNEP through development of the CCMP. The first years of program development often found the (then) CCMP core staff, the Policy Committee, the Management Committee, the Technical Committee and the Citizens Committee often locked in turmoil and counter-productive. The fact that these conflicts have been resolved, a CCMP has been finalized and the existing MBNEP core staff enjoys the respect and appreciation of all the parties committed to implementing the CCMP is attributable to the stability and guidance from EPA regional 4 staff through our turbulent years.

a. CCMP ACTIONS to be supported by EPA contributions or activities

Virtually all of the MBNEP's CCMP Actions and Tasks are supported via EPA's membership in the Policy and Management Committee's guidance as well as direct annual program funding.

b. EPA'S current level of support of MANAGEMENT ACTIONS

MBNEP is in it's sixth year of funding by EPA, although this is the first year with a CCMP in place.

EPA Region 4 and EPA Headquarters have been of assistance in providing additionally funding for specific projects within the MBNEP tasks, specifically funding for the Atmospheric Deposition Monitoring Support described in Task WQ-A1.2 of the Year Six (6) Work Plan. EPA's Gulf of Mexico Program has also provided principal funding support for MBNEP oyster restoration efforts, as well as for SAV and Habitat mapping.

Currently MBNEP is awaiting approval and authorization to proceed on an Environmental Education Grant submitted to both EPA Region 4 and EPA Headquarters by MBNEP for continuing adult environmental educations to be offered to real estate professionals by *grassroots inc.* The program has received accreditation approval by the Alabama Real Estate Commission and will focus upon "Smart Growth" principles of sound land use planning and development practices.

c. EPA'S ISSUES/ CHALLENGES IN SUPPORTING CCMP MANAGEMENT ACTIONS

The United States Environmental Protection Agency, is an ultimate and "distant" Federal Authority that has not enjoyed a positive image in an area where personal property rights are typically viewed as sacred and regulations of any kind are distrusted.

However, the establishment of the Mobile Bay National Estuary Program has served to create a higher visibility for EPA and given an opportunity for the agency's representatives to demonstrate reasonableness in working within the context of a "team approach" to problem solving.

C. Changes in Priorities

Changes in priorities, i.e. whether and how (mechanism) the program periodically re-evaluates the goals and priorities in the CCMP, and in particular, whether there is a formal process involving major stakeholders to re-assess program priorities and goals. If there has not been such an assessment to date, describe how the program plans to periodically re-evaluate priorities.

1. Current Re-evaluation Mechanism

The Mobile Bay National Estuary Program's Comprehensive Conservation and Management Plan (CCMP) has been designed a "living document" to be reviewed constantly and revised as needed from time to time to respond to new opportunities or challenges. In fact, the draft of a revised CCMP is approximately 95% complete.

The current mechanism for providing opportunities to make necessary amendments or to re-focus efforts to address an immediate concern exist via the on-going efforts of the Management Committee and the Citizens Advisory Committee (formerly the CAC and TAC). Regularly scheduled meetings of these groups are supplemented by on-going and ad hoc consultation among members with the MBNEP program office staff. The cooperative working relationships established (with the current MBNEP staff) and all levels of MBNEP Conference membership in the last two years have produced an expectation of immediate response to new issues, challenges or opportunities.

Evidence of the flexibility to respond to new issues or issues previously identified but elevated to an immediate priority concern include the **Mercury Forum**. Officially titled "Assessing Methylmercury in the Northern Gulf Environment", the Mercury Forum was a two day conference featuring national through local scientific experts in this field of study as well as representatives of local, state, and regional industrial dischargers of this element and members of users groups and citizens groups (e.g. fishermen) who are "impacted" by the results of these discharges. Over 300 people participated.

As a result of the MBNEP staff efforts, the City of Gulf Shores received the designation as a "Blue Wave Beach" signifying its compliance with the highest criteria for environmental management. This designation is an invaluable marketing tool.

Additionally, the MBNEP is the first National Estuary Program to become a "Groundwater Guardian" because of MBNEP staff initiative.

Similarly, the MBNEP has co-sponsored or participated in other activities that were not planned or described in MBNEP Annual Work Plans. These include:

Water Quality Forum - March 28, 2000 overviewing the MBNEP area's state of information and most recent concerns relative to wastewater storm water and flood water management and the implications of water quality in economic development and the tourism industry.

Other examples of addressing immediate needs or unplanned opportunities include but are not limited to:

Collaborative Planning with ADCNR Coastal Program regarding distribution of CIAP funding.

Brainstorming with interested agencies and officials to initiate a "SMART GROWTH" movement within the MBNEP area. (Mayor Mike Dow has recently convened a "Smart Growth Initiative" which will include participation of MBNEP member organizations: Dauphin Island Sea Lab Coastal Policy Center, and *grassroots inc.*)

Participation in ADCNR's "information exchange meeting" of professional planners within the MBNEP area, Sea Grant Legal Division, USACE - Mobile District personnel, and others regarding the change in USCOE's rules, regulations, and interpretations of "isolated wetlands" pursuant to a recent U.S. Supreme Court ruling.

The "Dog River Dog Paddle" initiated as an idea of the Dauphin Island Parkway Merchants Association to generate interest in the commercial area of town that principally physically parallels Dog River. Combined with the Dog River Clearwater Revival's interest in encouraging use and appreciation (and ultimately better environmental stewardship of Dog River, its tributaries, and its watershed), and with the assistance of the MBNEP in coordinator, this family-oriented canoe race recreational event occurred on May 18th, 2002.

2. The Formal MBNEP CCMP amendment process.

The formal process for involving major stakeholders to re-assess program priorities and goals is two fold:

- (1) As previously described, regular meetings of the Management Committee and the Citizens Advisory Committee and ad-hoc "information exchange" meetings of principal partners (including but not limited to: Dauphin Island Sea Lab Coastal Policy Center, ADCNR Coastal Programs, Mobile Bay Watch, Mobile County Health Department, etc.) keep the issues, concerns, and opportunities available fresh and relevant; and
- (2) Re-convening the "Issue Area Work Groups" - a composite of management, scientific, citizens and others, within the MBNEP Conference primarily responsible for the MBNEP CCMP Action Plans development. The purpose of reconvening these "Issue Area Work Groups" is to consider not only annual Work Plans for the upcoming year's program budgets for MBNEP, but also to re-evaluate the Action identified in the CCMP relative to its continued priority.

