



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT
Silver Spring, Maryland 20910

Mr. Dee A. Freeman, Secretary
N.C. Department of Environment and
Natural Resources
1601 Mail Services Center
Raleigh, NC 27699-1601

OCT 12 2012

Dear Secretary Freeman:

Enclosed are the final evaluation findings for the North Carolina Coastal Management Program (NCCMP) for the period from March 2006 through September 2011.

The fundamental conclusion of this evaluation is that the NCCMP is adhering to its programmatic obligations as defined by its approved program document, the terms of federal financial assistance awards, and the Coastal Zone Management Act of 1972, as amended. This evaluation findings document contains six recommendations. In response to the State's comments we have made factual corrections in the findings.

We appreciate your cooperation and assistance and that of your staff during the accomplishment of this evaluation.

Sincerely,

Margaret A. Davidson
Acting Director

Enclosure

cc: Braxton Davis, Director, DENR Division of Coastal Management
Joelle Gore, Chief, Coastal Programs Division
Randall Schneider, Team Lead, OCRM Coastal Programs Division
Sarah Van der Schalie, Program Specialist, OCRM Coastal Program Division



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FINAL EVALUATION FINDINGS

NORTH CAROLINA COASTAL MANAGEMENT PROGRAM

March 2006 – September 2011

October 2012



Office of Ocean and Coastal Resource Management
National Ocean Service
National Oceanic and Atmospheric Administration
United States Department of Commerce

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I. Executive Summary

Section 312 of the Coastal Zone Management Act of 1972, as amended (CZMA), requires the National Oceanic and Atmospheric Administration's (NOAA) Office of Ocean and Coastal Resource Management (OCRM) to conduct periodic evaluations of the performance of states and territories with federally approved coastal management programs. This review examined the operation and management of the North Carolina Coastal Management Program (NCCMP or Coastal Program) by the Department of Environment and Natural Resources (DENR or Department), the designated lead agency, for the period from March 2006 to September 2011.

This document describes the evaluation findings of the Director of OCRM with respect to the NCCMP during the review period. These evaluation findings include discussions of major accomplishments as well as recommendations for program improvement. This evaluation concludes that DENR is satisfactorily implementing and enforcing its federally approved coastal program, adhering to the terms of the Federal financial assistance awards, and addressing the coastal management needs identified in section 303(2)(A) through (K) of the CZMA.

The evaluation team documented a number of NCCMP accomplishments during this review period. The Coastal Program has improved its permitting process and permit compliance; better integrated the CRAC into the coastal planning and decision making process; revised its rules to reflect new scientific knowledge and emerging issues; supported planning processes to improve coastal management including the development of the Beach and Inlet Management Plan; revitalized the Clean Marina program; and developed digitized estuarine shoreline maps to enable better understanding of the effects of development and permit decisions. The NCCMP also worked closely with the NCNERR to conduct research on bulkhead alternatives and promote the use of living shorelines as an alternative to bulkheads that can also provide valuable habitat.

The evaluation team also identified areas where the implementation of the NCCMP could be strengthened. The recommendations are in the form of Program Suggestions and describe actions that OCRM believes DENR should consider to enhance or improve the program, but that are not mandatory. DENR is encouraged to continue to advocate for maintaining DCM regional offices and the Clean Marina and Clean Boater programs. OCRM also encourages DCM to work closely with the CRC and CRAC to ensure the effectiveness of coastal decision making in a constrained fiscal environment and consider options for increasing access to a broad array of technical expertise to better address emerging issues. Lastly, the NCCMP should consider developing time frames for review of land use plans and land use plan amendments. Summary tables of program accomplishments and recommendations are provided in Appendix A.

II. Program Review Procedures

A. Overview

NOAA began its review of the NCCMP in July 2011. The §312 evaluation process involves four distinct components:

- An initial document review and identification of specific issues of concern;
- A site visit to North Carolina, including interviews and a public meeting;
- Development of draft evaluation findings; and
- Preparation of the final evaluation findings, partly based on comments from the State regarding the content and timetables of recommendations specified in the draft document.

Accomplishments and recommendations made by this evaluation appear in boxes and **bold** type and follow the findings section where facts relevant to the recommendation are discussed. The recommendations may be of two types:

Necessary Actions address programmatic requirements of the CZMA's implementing regulations and of the NCCMP approved by NOAA. These must be carried out by the date(s) specified;

Program Suggestions denote actions that OCRM believes would improve the program, but which are not mandatory at this time. If no dates are indicated, the State is expected to have considered these Program Suggestions by the time of the next CZMA §312 evaluation.

A complete summary of accomplishments and recommendations is outlined in Appendix A. Failure to address Necessary Actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in CZMA §312(c). Program Suggestions that must be reiterated in consecutive evaluations to address continuing problems may be elevated to Necessary Actions. The findings in this evaluation document will be considered by NOAA in making future financial award decisions relative to the NCCMP.

B. Document Review and Issue Development

The evaluation team reviewed a wide variety of documents prior to the site visit, including the 2006 NCCMP §312 evaluation findings; the federally-approved Environmental Impact Statement and program documents for the NCCMP approved in 1978; federal financial assistance awards and

work products; semi-annual performance reports; official correspondence; and relevant publications on coastal management issues in North Carolina.

Based on this review and discussions with NOAA's OCRM, the evaluation team identified the following priority issues prior to the site visit:

- Program accomplishments since the last evaluation
- Implementation of federal and state consistency authority, including improvements to the consistency process and coordination
- Changes to the core statutory and regulatory provisions of the CZMP
- Effectiveness of interagency and intergovernmental coordination and cooperation at local regional, state, and federal levels
- Public participation and outreach efforts
- Permitting and enforcement
- Public access
- Coastal habitat
- Coastal hazards
- Water Quality
- Coastal dependent uses and community development
- Performance measurement efforts
- The state's response to the previous evaluation findings dated August 22, 2006

C. Site Visit to North Carolina

NOAA sent a notification of the scheduled evaluation to the DENR and coordinated a site visit with NCCMP staff that included interviews and a public meeting. NOAA published a notice of "Intent to Evaluate" in the *Federal Register* on August 3, 2011 and notified members of North Carolina's congressional delegation. The NCCMP posted notice of the public meeting and opportunity to comment on July 31st, 2011, in the Carteret News-Times, a newspaper of general circulation.

The site visit to North Carolina was conducted from September 12–16, 2011. The evaluation team consisted of Carrie Hall, Evaluation Team Leader; Sarah van der Schalie, Coastal Program Specialist, OCRM, Coastal Programs Division; and Jaime Michaels, Principal Permit Analyst, San Francisco Bay Conservation and Development Commission.

During the site visit, the evaluation team met with NCCMP staff and other DENR staff, representatives of other state, federal, and county agencies, and local elected officials. Appendix C lists persons and institutions contacted during this period.

As required by the CZMA, NOAA held an advertised public meeting at 6:30 p.m. Wednesday, September 14, 2011 at the 101 Pivers Island Road, Beaufort, North Carolina. The public meeting

was an opportunity for members of the general public to express their opinions about the overall operation and management of the NCCMP.

Appendix D lists persons who attended the public meeting. In addition, NOAA and the NCCMP solicited written public comments as part of the evaluation process. OCRM received no public comments and the public meeting was unattended.

The support of the NCCMP staff was crucial in setting up meetings and arranging logistics for the evaluation site visit. Their support is most gratefully acknowledged.

III. Coastal Management Program Description

NOAA's Office of Ocean and Coastal Resource Management approved the NCCMP in September 1978, four years after the NC General Assembly passed the Coastal Area Management Act (CAMA), to establish the Coastal Resources Commission (CRC), require local land use planning in 20 coastal counties, and provide for a program to regulate development. The NCCMP is administered by the Division of Coastal Management (DCM) within DENR. DCM works to protect, conserve, and manage North Carolina's coastal resources through an integrated program of planning, permitting, education, and research. DCM carries out CAMA, the Dredge and Fill Law, and the federal CZMA in the coastal zone, using rules and policies of the CRC.

North Carolina's coastal area consists of 20 coastal counties, covering 3,371 miles and populated by more than 700,000 residents. The NCCMP employs a two-tier approach to manage the state's coastal resources within this area. The critical resource areas, designated as Areas of Environmental Concern (AECs), comprise the first tier. DCM regulates activities in these areas through CAMA permits. The designated AECs include public trust areas and estuarine waters, saltwater wetlands, beaches, primary dunes, primary nursery areas, frontal dunes, ocean erosion areas, inlet lands, small surface water supply watersheds, public water supply well fields, coastal and estuarine shorelines, and certain fragile natural resource areas. Non-AEC areas within the 20 coastal counties comprise the second tier. These areas are managed through a coordinated effort of other state laws, local land use plans, and Executive Order 15, which requires state agency actions to be consistent with the local land use plans.

The NCCMP consists of resource management laws and regulations; state policies concerning coastal management established by statutes or other authorities; the Governor's Executive Order Numbers 15, 57, 95, and 120; and CAMA, which provides a cohesive bond with existing statutes to provide a broad system of coastal management complete with guidelines, regulations, standards, procedures, and local land use plans. DCM is responsible for program implementation through activities such as state dredge and fill permitting and enforcement, state consistency reviews, CAMA land use planning, public beach and coastal waterfront access, and North Carolina Coastal Reserves. The CRC, a 15-member citizen body appointed by the Governor, is responsible for the development of policies and state guidelines for the designation and regulation of Areas of Environmental Concern, the establishment of state guidelines for local land use planning in the coastal area, and the initiation of action on new coastal resource management issues. The 45-member Coastal Resources Advisory Council (CRAC), composed of primarily of representatives of local government and state agencies, provides input to the CRC deliberations.

IV. Review Findings, Accomplishments, and Recommendations

A. Operations and Management

Overall, OCRM finds that the North Carolina Department of Environment and Natural Resources is satisfactorily implementing the North Carolina Coastal Management Program as approved by NOAA in 1978.

1. Organization and Administration

DCM headquarters are located in Morehead City and DCM has three other regional offices in Elizabeth City, Washington, and Wilmington and four Coastal Reserve offices. Staff in headquarters and the three regional offices are responsible for permitting and enforcement in their region. Each office also includes a planner who provides assistance to local governments in the development of local land use plans and public access sites. The four Coastal Reserve offices oversee the management of the 10 reserve sites, including four designated as part of the NC National Estuarine Research Reserve.

DCM staff are dedicated and highly regarded by those they work with. The evaluation team met with numerous stakeholders who expressed their appreciation for staff; discussed their good working relationships with staff; and described staff members as professional, accessible, and customer focused.

During the evaluation period, DCM lost several staff positions including two planner positions and the assistant director for policy and planning position. Most of DCM's information technology staff were consolidated into the DENR's Information Technology Services Division as part of a department wide consolidation. The public information officer position was moved to the DENR Public Affairs Office but through a cooperative agreement between DCM and Public Affairs, the officer continues to manage public information for DCM, while also working on department-level initiatives. As required by the 2011 state budget legislation, the few remaining Raleigh office staff are to be relocated to Morehead City. DCM also gained four new compliance enforcement positions, one position in each regional office, through legislative action to implement recommendations in the Coastal Habitat Protection Plan (CHPP).

The North Carolina Coastal Program is designed to incorporate and encourage public involvement and comment. The regional offices play a key part in enabling the general public to engage in coastal management. During the site visit, a number of stakeholders expressed concern that the state was considering closing NCCMP regional offices. Stakeholders emphasized to the evaluation team the importance of regional offices as they provide local citizens and local governments in the coastal zone access to staff; provide staff with increased understanding of local issues; allow staff and partners to build relationships; enable staff to efficiently visit sites and meet with partners; and

allow staff to conduct onsite visits to enable a better understanding of onsite issues and provide better service to the public.

Program Suggestion: OCRM encourages DENR to continue to advocate for maintaining DCM regional offices to provide local citizens and local governments direct access to staff expertise and to allow for the development and maintenance of working relationships, which are important to successfully addressing local coastal management issues.

2. Management of Cooperative Agreements

OCRM awards the State of North Carolina federal funds through annual cooperative agreements for the implementation and enhancement of the Coastal Program and the NCCMP is required to submit semi-annual reports. OCRM finds that the NCCMP satisfactorily managed its federal funding, submitted complete performance and financial reports in a timely manner, and achieved desired results from funded tasks during the evaluation period.

3. Partnerships

NCCMP has successfully leveraged partnerships to improve coastal management in North Carolina and examples are highlighted throughout the evaluation findings. During the evaluation period, DCM successfully addressed a previous program suggestion to continue to improve internal coordination and communication. The Reserve provides critical research, education, training, and stewardship skills and services both for the NCCMP and local communities and DCM provides extensive support to the Reserve. For example:

- NCNERR staff regularly contribute their expertise to CRC and Coastal Habitat Protection Plan meetings and participate in NCCMP planning efforts including the development of the 2011 Section 309 Assessment and Strategy.
- NCNERR Coastal Training Workshops have reached local government decision makers and community members through workshops on topics such as barrier island development, septic systems for realtors, wetland species identification for local government permit officers, coastal development rule updates for marine contractors, and sea level rise.
- The NCNERR Education Coordinator developed a Division-wide Education Plan in 2007 to increase public awareness of the mission and goals of the Division.
- DCM's policy section supported two NCNERR acquisition projects resulting in land additions to the Masonboro Island NERR and the Kitty Hawk Woods Coastal Reserve.
- DCM permitting staff provide consultation on coastal development related activities and issue permits for relevant projects.
- DCM's public information officer provides NCNERR with support including coordinating interactions with the media such as writing and distributing press releases and fielding questions from the media and compiling the newsletter for the Reserve's friends group.

The NCCMP has also worked closely with N.C. Sea Grant on a number of projects. N.C. Sea Grant assisted the NCCMP with revising educational materials for potential buyers of coastal property in North Carolina; provided policy research to suggest revisions and recommendations for state ocean policies; developed a mini-fellowship program to support Reserve priorities; and is looking to develop a mini-fellowship program to support NCCMP priorities.

4. Communication

The NCCMP provides successful outreach on the program's activities, issues, and public meetings through the program's website, e-mail lists, and communication materials. During the evaluation period, the NCCMP had a public information officer on staff which allowed the program to interact with the media and distribute press releases and answer questions; develop and provide information to citizens and local governments through press releases, the program's website, and other media; and to explore innovative communication mechanisms. The NCCMP is also using new technologies to reach citizens including DENR's Facebook page and developing and implementing a social media campaign via Twitter and Facebook as part of a broader public education campaign about the importance of N.C. estuaries. OCRM commends the NCCMP for its use of a broad array of communication methods and outreach to citizens to inform them of the activities of the program and important coastal issues. OCRM encourages the NCCMP to explore additional opportunities to publicize the program's many activities and accomplishments.

B. Government Coordination and Decision Making

1. Ocean Policy

The NCCMP ranked Ocean Resources as a 'high priority' in both its 2006 and 2011 Section 309 Program Assessment and Strategies document. The 2006 document included a strategy to assess and report on coastal and ocean issues and potential solutions. DCM partnered with N.C. Sea Grant and the N.C. Coastal Resources Law, Planning and Policy Center to convene and coordinate the efforts of an Ocean Policy Steering Committee, representing federal, state and local government, academics, non-profits and other stakeholders. The committee was tasked with considering the State's emerging ocean resource policy issues. The Committee produced a report in 2009 entitled "*Developing a Management Strategy for North Carolina's Coastal Ocean*" which contains recommendations addressing the following areas: sand resource management, ocean-based alternative energy, ocean outfalls, marine aquaculture, and comprehensive ocean management. The CRC created an implementation subcommittee to address the recommendations of the committee and has taken action based on the report including revising the CRC's coastal energy policies.

2. Energy

With the emergence of the potential for alternative energy development in coastal waters Energy and Facility Siting rose from a rank of low to high priority between the 2006 and 2011 Section 309 Assessments. Interest in alternative energy development increased after the passage of the national Energy Policy Act of 2005 which authorized the U.S. Department of the Interior to grant leases for activities that involve the production, transportation or transmission of energy on OCS lands from sources other than gas and oil. In 2007, N.C. adopted a Renewable Energy and Energy Efficiency Portfolio Standard (REPS) which requires investor-owned utilities in N.C. to meet up to 12.5 percent of their energy needs through renewable energy resources or energy efficiency measures by 2020.

The state legislature granted the Environmental Management Commission (EMC), which is supported by DENR, with the authority to evaluate renewable energy technologies and establish environmental standards to ensure that renewable energy facilities do not cause adverse effects to the environment. The EMC provided recommendations to the legislature including recommendations on the development of a wind energy permitting program. In response to the EMC recommendations and Ocean Policy Steering Committee report the CRC amended its coastal energy policies to facilitate the siting of utility-scale wind energy facilities in state waters and to address ocean-based alternative energy generation.

3. Permitting

The NCCMP improved its permitting process by (a) focusing on working with applicants at the pre-application stage to address issues early in the planning process, (b) continuing an express permitting program, (c) streamlining permitting (d) working with state partners (Division of Marine Fisheries (DMF) and Department of Transportation (DOT) to support staff dedicated to reviewing coastal permits, (e) improving compliance through the addition of four compliance and enforcement positions, and (f) increasing violation fees so that they act as a deterrent.

The NCCMP is proactive in working with permit applicants and reaching out to those who may need a permit. For example, when the Town of Carolina Beach had a sewer system spill and subsequent evacuation, staff reached out to alert the town that they were ready to quickly review any needed permit modifications during emergency work. With the increased focus on proactive contact and interaction with local governments and citizens, violations have gone down close to 60 percent from 2007 to 2010.

The NCCMP has also continued a successful express permitting program whereby applicants can choose to pay a larger fee to have their permit processed faster by dedicated express permitting staff who are funded through the additional fees. This also allows DCM staff to review nonexpress permits faster, as there are fewer nonexpress permits to review.

The NCCMP worked with the Division of Water Quality to streamline environmental permitting and reduce staff effort through an agreement that allows DCM permitting staff to review and approve certain activities within the riparian buffer areas of the Neuse and Tar-Pamlico River basins. The Division of Marine Fisheries (DMF) created positions to review NCCMP major permit applications resulting in shortened permit review times and improved inter-agency coordination. In addition, DMF allows NCCMP staff to accompany them on aerial enforcement flights and NCCMP has trained DMF aerial enforcement staff on how to recognize potential CAMA violations. NCCMP successfully leveraged state Department of Transportation (DOT) resources to hire dedicated permit staff to review DOT related permits leading to more efficient permit processing and improved communication and coordination. This successful partnership enabled the NCCMP to review and approve within one day, repairs of N.C. Highway 12 in the aftermath of Hurricane Irene.

The NCCMP made significant strides in compliance and enforcement through the addition of four compliance and enforcement positions and increases in violation penalties. In 2007, the legislature addressed a CHPP recommendation to focus on better enforcement of existing rules and created the four compliance and enforcement positions, one in each district office, to monitor permitted projects, conduct routine aerial surveillance flights, provide compliance assistance, and handle the majority of enforcement activity. By having staff dedicated to compliance and enforcement, the program has been proactive in preventing violations through conducting site visits and training workshops, and building rapport with applicants. The CRC was also granted the authority to increase civil penalties under an amendment to CAMA which provides for a civil penalty of not more than \$1,000 for minor development violations and not more than \$10,000 for major development violations. Previously, the maximum penalties were \$250 for minor development violations and \$2,500 for major development violations. The amended law also provides the CRC the authority to assess the costs of any investigation, inspection, or monitoring associated with the assessment of a civil penalty. The compliance rate increased from 93 percent in 2007 to 97 percent in 2010, the highest in the DENR regulatory divisions.

Accomplishment: DENR and NCCMP have improved and streamlined the permit review process and in addition, have improved permit compliance through outreach and education, improved enforcement, and setting larger maximum penalties that serve as a deterrent.

DCM's electronic permitting system has limited capability and is not integrated with GIS. An enhanced permitting system would enable staff to quickly respond to requests for information, provide for easy circulation and tracking of permits, and provide a user friendly application. OCRM encourage DENR and the NCCMP to develop an improved electronic permitting system that is integrated with GIS.

4. Federal Consistency

Federal consistency is a CZMA requirement where federal agency activities that have reasonably foreseeable effects on any land or water use or natural resource of the coastal zone must be consistent to the maximum extent practicable with the enforceable policies of a coastal state's federally approved coastal management program. The NCCMP is successfully implementing federal consistency in N.C. The NCCMP has updated many of its rules within the evaluation period and some have been submitted to OCRM for approval and incorporated into the federally approved program. OCRM encourages the NCMP to work with NOAA to develop a schedule to incorporate the additional rule changes into their federally approved program.

5. Coastal Resources Commission (CRC) and Coastal Resources Advisory Council (CRAC)

The CRC was created when the General Assembly adopted the Coastal Area Management Act (CAMA) in 1974. The CRC is responsible for establishing policies for the NCCMP and adopts implementing rules for both CAMA and the N.C. Dredge and Fill Act. The commission designates areas of environmental concern, adopts rules and policies for coastal development within those areas, and certifies local land-use plans. The CRC consists of 15 members appointed by the Governor. The CRAC is a 45-member group that provides the Coastal Resources Commission (CRC) with local government perspectives and technical advice. Members represent coastal counties and cities, regional councils of government, science and technology, and state agencies. Members serve at the pleasure of the appointing body.

In January of 2008, the CRC held a strategic planning session where the members considered the current and emerging coastal management issues in the state and developed a list of seven priority issues to address: estuarine shoreline stabilization, estuarine management, public access, sea level rise, energy production, public education about CRC and DCM, and review of 7B land use planning guidelines. The CRC has successfully moved forward on these issues during the evaluation period. OCRM encourages DCM and CRC to again assess current and emerging coastal issues and to identify priority issues for the CRC to focus on.

Evaluation participants noted that over the review period, the interaction between the CRC and the CRAC has greatly improved and CRAC members have been more meaningfully integrated into the decision making process. To enhance integration, joint CRC-CRAC committees were formed and CRAC members attend CRC meetings and provide recommendations on matters before the CRC.

Accomplishment: The NCCMP developed new procedures for better utilizing the expertise of CRAC members to improve coastal planning and decision making.

The CRC meets at least four times a year, or more often as necessary, to conduct commission business. During the evaluation period, state funds that support travel for the CRC and CRAC have

been reduced resulting in shortened meeting times. During the evaluation site visit, stakeholders expressed conflicting perspectives about how efficiently and effectively the meetings are conducted and how assertive staff should be in their recommendations before the CRC.

Due to budget constraints, the NCCMP has had to limit the number, length, and location of CRC meetings. Throughout the site visit, stakeholders expressed frustration about the changes and the impacts they have on decision making and public attendance. OCRM encourages NCCMP to work with the CRC and CRAC to consider if changes are needed to meeting formats to ensure meetings are as efficient and effective as possible, particularly in light of shortened meeting times; explore ideas to create a more predictable meeting schedule; consider options for providing additional meeting time (if appropriate); and to vary the location. In addition, NCCMP, CRC, and CRAC may wish to explore technology based options that could potentially increase the participation and involvement of stakeholders unable to travel.

Program Suggestion: OCRM encourages DCM to work with the CRC and CRAC to explore and consider options for CRC meetings to maintain or improve efficiency and effectiveness of coastal decision making and public participation in a budget constrained environment.

Evaluation participants noted that the Science Panel had developed and improved its administrative procedures during the review period, but some stakeholders expressed concern over the limited breadth of expertise on the Science Panel in light of the broad array of issues the CRC needed to address. The previous evaluation findings also included a suggestion that the science panel include a more diverse array of expertise to improve its ability to address additional emerging issues. OCRM continues to encourage DCM and the CRC to identify ways to increase the types of expertise represented on the panel (e.g., including an economist and social scientists) and/or consider creating ad hoc science panels that can respond to specific issues where the current science panel lacks expertise.

Program Suggestion: OCRM encourages DCM and the CRC to consider options for increasing access to a broad array of technical expertise such as expanding the types of expertise represented on the science panel and/or creating ad hoc panels for specific issues.

6. Rulemaking

The NCCMP has continued to assess and analyze changing conditions and issues in the coastal zone and reassess the scientific and technical basis of its rules and used this information to adopt new rules that more effectively manage coastal resources, reduce risks to coastal hazards, and provide for renewable energy development off the coast of N.C. In particular, the NCCMP has made changes to its energy and hazard policies that are discussed further in subsection 2 of Section B. Government Coordination and Decision Making and Section C. Coastal Hazards.

Accomplishment: The NCCMP reassessed the scientific and technical basis of its rules and adopted new and revised rules that reduce risks to coastal hazards and provide for renewable energy development off the coast of N.C.

In 2011, the N.C. General Assembly passed the Regulatory Reform Act which prohibits agencies from adopting environmental regulations that are stricter than federal regulations and exempts projects requiring a CAMA major permit from State Environmental Policy Act review. The Act also eliminates agency authority to make final decisions in contested cases; instead, decisions will be issued by an administrative law judge. Contested cases initiated after the bill's passage will no longer come to the CRC for a final agency decision. In addition, Session Law 2011-13 amended the Administrative Procedures Act requiring agencies to prepare a fiscal note for proposed rules that have a cumulative financial impact (both cost savings and cost) of \$500,000 or more in a 12 month period on entities subject to the rule. The more extensive economic analysis and lower dollar threshold for review will require more DCM staff time and a longer length of time before rules can be codified or modified.

C. Coastal Hazards

During the evaluation, the NCCMP has focused on coastal hazards and reassessed and revised a number of its coastal hazards related policies. The NCCMP rated coastal hazards as a high priority in its 2006 and 2011 309 Assessment. In the 2006 Assessment, DCM identified the need to reassess the scientific and technical basis for some of its rules and developed two strategies to address coastal hazard issues. The NCCMP has been very successful in implementing its 309 Strategies and revising and updating its coastal hazard rules.

1. Oceanfront Building Setbacks

During the evaluation period, the oceanfront building setback requirements in the Coastal Hazard Area rules were revised to reduce the property impacts of long term erosion and to help preserve access to the public beach. The amendments tie beachfront building setbacks to the size of the structure, not the use. The revisions include graduated setback factors for buildings greater than 10,000 square feet (thus increasing the maximum setback from 60 to 90 times the erosion rate).

2. Beach Renourishment Sediment Criteria

Beach nourishment is the primary tool used in North Carolina to address oceanfront beach erosion. As the scope of beach nourishment has grown, new sources of sediment have been pursued offshore and from upland sources. The sediment from these sites may be significantly different in character from the beach on which it is intended to be placed. The CRC's previous rule stated only that sand used for beach nourishment must be compatible with existing grain size and type and no quantification of the term 'compatible' was provided. Controversy over the results of several renourishment projects raised concerns.

The CRC's Science Panel on Coastal Hazards began working to develop new sediment criteria in 2002. After analyzing over 2,300 native beach grain size distributions, standards that match borrow material to the pre-existing beach were established. In 2007, the CRC adopted a new Technical Standards for Beach Fill Projects rule to ensure high quality sand is placed on beaches during renourishment. The standards were the most comprehensive set of rules regarding beach renourishment for any coastal state. The new rule provides an objective definition of sediment compatibility and protocols for sampling both the beach to be renourished and the proposed borrow site. The protocols help ensure that future beach fill projects will closely mimic the native characteristics of North Carolina's beaches

DCM has monitored the implementation of the new beach fill and sediment criteria and has determined that under certain circumstances less sampling is needed. The NCCMP is proposing to streamline the requirements and reduce the costs for local governments who have previously conducted testing of sediment from an offshore area. DCM staff were in the process of completing a detailed fiscal note of the impacts of the rule change at the time of the evaluation site visit, as the rule was anticipated to save local governments over \$500,000.

3. Beach and Inlet Management Plan:

The NCCMP partnered with the Division of Water Resources to develop North Carolina's first Beach and Inlet Management Plan, which provides a framework for comprehensively evaluating the condition of the state's beaches, promotes a regional approach to sediment management, and calls for the creation of a funding mechanism for shoreline management and beach restoration. The framework builds on previous legislative actions, studies and recommendations including a recommendation in the 2005 CHPP to "Prepare and implement a comprehensive beach and inlet management plan that addresses ecologically based guidelines, socio-economic concerns, and fish habitat."

The development of the plan included solicitation of broad stakeholder and public input. Two groups were established to guide the BIMP development: a BIMP Advisory Committee and a DENR technical work group. The Advisory Committee was composed of representatives from federal and state agencies, local governments, academic institutions, and non-profit organizations. The technical work group was comprised of DENR division representatives. The public was engaged, informed, and consulted throughout the process through press releases, a project website, comment solicitation, questionnaires, and public input meetings that were held in the four coastal regions and Raleigh.

Accomplishment: The NCCMP developed a Beach and Inlet Management Plan, which provides a framework for improved management of the state's beaches.

4. Sandbag Management

The NCCMP has determined that permanent erosion control structures may cause significant adverse impacts on public access to and use of the ocean beach and the value and enjoyment of adjacent properties and therefore, are prohibited except in a limited number of described circumstances. N.C. relies on other techniques such as beach renourishment and development setbacks to protect life and property and to preserve access to the beach. In cases of imminently threatened roads and associated right of ways, and buildings and their associated septic systems, permissible temporary erosion control structures, limited to sandbags placed landward of mean high water and parallel to shore, are allowed.

Sandbags are meant to be a temporary erosion control measure and permitted for limited periods of time. The usage and management of sandbags have been a source of litigation and controversy as once they are in place, many property owners do not want to remove them. The legislature passed Session Law 2009-479 in August 2009, creating a temporary moratorium on the CRC's authority to order the removal of permitted sandbags whose terms had expired. The moratorium was in place while the CRC conducted a required study on the feasibility of permitting terminal groins, and expired on September 1st, 2010.

The CRC began to actively consider its policy for temporary erosion control in 2007, in preparation for a May 2008 deadline for the removal of existing sandbag structures on the oceanfront. Since 2007, the CRC has reviewed the development and evolution of existing sandbag rules. The CRC conducted four stakeholder meetings to gain insight into the use of temporary erosion control structures and to investigate ways in which their use could be better managed. Potential solutions for the management of sandbags and the implementation of the temporary erosion control measure policy included community management, tax credits or cash payments for removal of structures, private entities interested in salvaging condemned structures, and possible help from the FEMA Hazard Mitigation Program. The CRC made some modifications to the rules addressing the length of time and number of times sandbags could be used to protect structures located in Inlet Hazard Areas.

Program Suggestion: OCRM encourages the NCCMP to continue to enforce existing laws and rules regarding sandbags while continuing to research and explore options for managing sandbag use that result in minimizing public safety concerns and adverse impacts such as erosion on neighboring properties.

5. Terminal groins

Terminal groins, along with other permanent erosion control structures, had been banned on the N.C. oceanfront by CRC rule since 1984. Legislation in 2003 codified the ban into state law. Several bills were introduced in recent N.C. Legislative sessions to allow terminal groins to be used as erosion control devices at North Carolina inlets. In 2009, the legislature passed Session

Law 2009-479 requiring the CRC, in consultation with DCM, the Division of Land Resources, and the CRAC to conduct a study of the feasibility and advisability of the use of terminal groins as an erosion control device at the end of a littoral cell or the side of an inlet.

DCM, CRC, CRAC, and the Division of Land Resources coordinated the preparation of a report on the science behind terminal groins, solicited public input as required by the law, and provided recommendations on policy and suggested conditions if groins were to be allowed. In 2011, the legislature passed Session Law 2011-387 allowing for the permitting and construction of up to four terminal groins in N.C. inlets for the purpose of erosion control. The bill included almost all of the recommendations and suggested conditions contained in the report. At the time of the site visit, several oceanfront communities had expressed an interest in installing a terminal groin and were actively investigating the costs, potential environmental impacts, and engineering needs but none had applied for a permit.

6. Long-Term Average Annual Oceanfront Erosion Rate Update

The state's long-term average annual erosion rates have been updated periodically since 1980. The annual erosion rates are used in determining the ocean hazard setback factors which are used to site oceanfront development and determine the extent of the Ocean Erodible Area of Environmental Concern, or the area where there is a substantial possibility of excessive shoreline erosion. In 2011, DCM staff completed the fifth oceanfront erosion rate update, the first completed by staff within DCM, resulting in a savings of approximately \$250,000. The results of the study were approved by the CRC Science Panel on Coastal Hazards in April 2011 and the CRC approved the draft proposal in May 2011. As of July 2012, the CRC will soon be holding public hearings on the update to the erosion rate.

7. Sea Level Rise

The CRC and DCM have begun to evaluate and prepare for the risks associated with sea level rise. In the summer and fall of 2009, a scoping survey of perceptions regarding sea level rise was conducted. Survey respondents were primarily N.C. coastal property owners and local government officials and employees. In January of 2010, a science forum of over 250 stakeholders from the public, academic and policy institutions, local government, and state and federal agencies was held. The CRC Science Panel on Coastal Hazards prepared a Sea-Level Rise Assessment Report to provide state planners and policy makers with a scientific assessment of the amount of sea level rise likely to occur in this century, which was released in March of 2010. The report synthesized the best available science on SLR as it relates to N.C. and includes a recommendation regarding how much sea level rise the CRC should plan for by 2100.

DCM and the CRC next developed a draft sea level rise policy which was then put out for review by local governments. Some of the concerns raised included the application of Duck tide gauge data to the entire coast, use of a single rate for the coast, the Science Panel recommendation to plan for a one meter rise by 2100, and the land use planning provisions. Based on the feedback

received, the NCCMP made revisions to the draft policy including removal of the planning benchmark, encouraging the use of regional gauges, and clarification that LUP guidelines rest in 7B. While the NCCMP has yet to approve a new sea level rise policy, the program played a significant role in starting the dialogue with local communities on how to plan for sea level rise in coastal North Carolina. The NCCMP has also refocused its efforts on education and building awareness at the local level, with assistance from the NCNERR. The NCNERR conducted a market analysis of publicly funded educational organizations on sea level rise education messaging.

The discussion regarding potential impacts of sea level rise and if and how communities should prepare to mitigate the risks, will likely continue to be on the forefront of issues the NCCMP will be addressing in the next five years. OCRM commends the NCCMP for initiating the dialogue around sea level rise and encourages DCM to take advantage of its policy, planning, scientific, and educational expertise during this time to continue moving the sea level rise issue forward.

D. Coastal Dependent Uses and Community Development

CAMA requires each of the 20 coastal counties to have a local land-use plan in accordance with guidelines established by the CRC. CRC's guidelines provide a common format for each plan and a set of issues that must be considered during the planning process; however, the policies included in the plan are those of the local government, not of the CRC. By law, the role of the CRC is limited to determining whether plans have been properly prepared in terms of addressing the various management topics and following public participation procedures. Once a land-use plan is certified by the CRC, DCM uses the plan in making CAMA permit decisions. Proposed projects and activities must be consistent with the enforceable policies of a local land-use plan, or DCM cannot approve the permit.

The Land Use Planning 7B Guidelines were revised significantly in 2002. During the evaluation period, DCM has certified 43 land use plans per the 2002 7B Guidelines and an additional fifteen land use plan amendments have been processed. At the time of the site visit, sixteen land use plans were still in the development process.

As part of the effort to develop new land use plans, DCM collaborated with the Office of Conservation, Planning and Community Affairs to encourage local governments to incorporate DENR Natural Heritage Program data and policies for consideration of natural heritage resources in their local land-use plans and permit and zoning decisions. A number of local governments incorporated the data and policies for consideration of heritage resources in their updated plans.

DCM is backlogged in assisting local communities in updating and reviewing their land use plans. During the evaluation period, DCM lost two staff planner positions and funding to support state planning efforts has steadily decreased over the evaluation period from \$390,788 in FY 2005-2006 to \$35,025 in FY 2009-2010. The evaluation team met with local government stakeholders who

noted that the review of land use plan changes, both simple and complex, often took an extensive amount of time and that they did not know when to expect a response. Local government stakeholders stated it would be helpful to know the length of the review period from the start. In addition, although stakeholders acknowledged that DCM staff had a large workload, they also stated that a shorter defined review period, particularly for smaller changes, would be of benefit.

Program Suggestion: OCRM encourages DENR and NCCMP to explore and consider setting time frames for review of land use plans and land use plan amendments and reducing the current length of time it takes to conduct reviews.

DCM planners work to facilitate the attendance of local officials and staff at Coastal Training Program workshops as well as local workshops provided by the N.C. American Planning Association to provide information on CAMA and land use planning to local government elected officials and planners. The trainings provide a valuable opportunity for planners and especially, local government elected officials who often do not have specific training in land use planning to understand the regulations and the benefits of planning. During the site visit, the evaluation team noted that additional training opportunities for local officials could be beneficial, particularly with a focus on the purpose of the land use planning requirements and opportunities for, and examples of, how land use planning can benefit communities. OCRM encourages the NCCMP and NCNERR to continue to provide training and educational opportunities for local government officials and other priority audiences to clarify the purpose of the required land use plans and to provide information and examples on how they can be used to benefit communities.

E. Public Access

DCM ranked Public Access as a medium concern in its 2006 Program Assessment and as high in its 2011 309 Program Assessment. The North Carolina coast has seen increased private development which has led to a shift from traditional working waterfront community access to condominiums and housing developments. There has been a loss of traditional access as public marinas, boat launches, and piers have been being converted to private uses. The loss of traditional access sites, coupled with a continuing growth in the coastal population and tourism, is leading to a greater demand for additional public access.

In August 2006, the N.C. General Assembly created the Waterfront Access Study Committee to study the loss of the diversity of waterfront uses and how the losses impact public access and to develop recommendations for how the state might manage these changes. The CRC Chair and DCM director both served as committee members. The committee released its findings in 2007, and in response to the recommendations, the General Assembly took a number of steps including setting up a Waterfront Access and Marine Industry Fund which was funded with a one-time allocation of \$20 million to acquire waterfront property or develop facilities to provide, improve, or develop public and commercial waterfront access. The evaluation team visited Jennette's Pier whose rebuilding was supported with funds from the Waterfront Access and Marine Industry Fund

along with funding from numerous other organizations including the NCCMP. The pier is now a popular tourist destination that provides public angling access and public education opportunities through N.C. Aquarium exhibits located in the pier facility.

The NCCMP administers the Public Beach and Waterfront Access grant program for local governments, which is funded by the state through a real estate transfer tax. The funds are used to acquire coastal properties and to construct low cost public access facilities. From 2006-2010, the NCCMP provided over \$20 million in funding for 113 project, of which, over 70 were completed at the time of the site visit.

In 2009, DCM amended the CAMA Shorefront Access Policies associated with the Public Beach and Coastal Waterfront Access Program to enhance recognition of economically distressed rural estuarine communities. The change significantly lowered cash matching requirements for both acquisition and improvements. Additional adjustments to the rules also occurred to enhance opportunities to partner with other state and federal agencies to provide public access. Since the policy changes have become effective there has been a 20 percent increase in grant requests and awards to economically distressed communities.

DCM also continues to host a website that provides information on public access sites acquired with DCM funding (<http://www.nccoastalmanagement.net/Access/sites.htm>). The website identifies the state's public beach access ways and provides information about site amenities such as parking and restrooms. The site is updated annually to reflect both new and enhanced beach and estuarine access facilities.

F. Water Quality

1. Coastal Nonpoint Pollution Control Program

Section 6217 of the Coastal Zone Management Act requires that states with federally approved Coastal Management Programs develop Coastal Nonpoint Source Pollution Control Programs. North Carolina's program was developed by DCM in cooperation with the Division of Water Quality through an effort to catalog existing programs that control nonpoint source pollution in the coastal area, determine if they meet requirements of the federal Coastal Nonpoint Source Pollution Control Program, and identify new or modified management measures needed for an approvable program. The state's original program was submitted to EPA and NOAA in 1995, and received conditional approval in 1998 with specific conditions that needed to be met for full approval. Over the next five years, DCM and the Division of Water Quality worked to address the specific conditions, including expanding the coastal nonpoint program boundary, adding required management measures, and improving management mechanisms and policies. In June 2003, NC's Coastal Nonpoint Source Pollution Program received full approval from EPA and NOAA.

DCM has also addressed coastal nonpoint pollution by providing funding support for the Water

Quality Planner Position within N.C. Sea Grant. The water quality planner worked on a number of projects and initiatives during the evaluation period including a partnership N.C. Coastal Federation, Currituck County, and UNC to support the 2010 local elected officials' leadership training course, *Leadership Training: Growth and Sustainability Strategies Course*, which was attended by 32 local officials and staff. In addition, the coordinator supported several activities related to the Currituck County Going Green initiative, which arose as a result of a 2008 needs assessment that revealed that environmental stewardship was the number one concern of county residents.

2. Clean Marina and Clean Boater Programs

In 2007, the NCCMP was able to hire a dedicated staff member to support the N.C. Clean Marina program for the first time. The part-time coordinator has revitalized the N.C. Clean Marina program and created the new N.C. Clean Boater program.

The N.C. Clean Marina is part of the national Clean Marinas program, a voluntary program that encourages marina operators and recreational boaters to protect coastal water quality by engaging in environmentally sound operating and maintenance procedures. The program gives marina and boatyard facilities a chance to be recognized for their efforts towards environmental responsibility, attracts responsible boaters, generates new sources of revenue, provides free publicity and recognition, improves worker safety, and assists with regulatory compliance. The program provides customers with an easy way to identify and choose facilities that are following best management practices. Since 2006, the program has designated 25 Clean Marinas.

The N.C. Clean Boater Program is a new program to raise awareness and encourage use of best management practices. Boaters read "A Boaters' Guide to Protecting North Carolina's Coastal Resources," sign a pledge card, receive a N.C. Clean Boater sticker to display on their vessel, and use N.C. Clean Marinas when possible.

During the review period, the program coordinator successfully provided assistance to marina owners who obtained the Clean Marina designation, created new outreach materials, and developed a best management practices manual. In addition, the clean marina coordinator helped coordinate DWQ, NCCMP, and coastal counties on the implementation of the new U.S. Environmental Protection Agency No Discharge Zone designation instituted for New Hanover, Brunswick, and Pender counties and provided compliance workshops for the regulated marina community and outreach workshops on the No Discharge Zone designation with assistance from the NCNERR.

The Clean Marina coordinator also promotes and assists marinas with applying for funds from the Marine Sewage Pumpout Station Grant program managed by DCM using funding from the U.S. Fish and Wildlife Service. Grants for up to \$15,000, with a 25 percent match requirement, are available on a yearly basis to private and commercial marinas, gas and service docks, fish houses and seafood dealers and other boat docking facilities. The goal of the program is to make pumpout

and dump stations readily available and convenient for recreational boaters and marina operators.

Accomplishment: The NCCMP revitalized the N.C. Clean Marina program and developed a new Clean Boater program that supports the implementation of best management practices at marinas.

With continued cuts in state funding, it may be challenging to continue the Clean Marina and Clean Boater Programs. OCRM encourages the NCCMP to continue to support the programs and if necessary, identify alternative funding sources and/or alternative options for continuing the program.

Program Suggestion: OCRM encourages DENR to support the Clean Marina program and Clean Boater program to enhance water quality, assist marina and boatyard owners with attracting business, and provide boaters with the opportunity to choose facilities implementing best management practices.

G. Coastal Habitat

1. Coastal Habitat Protection Plan (CHPP)

The Environmental Management Commission, the Marine Fisheries Commission, and the Department of Environment and Natural Resources (DENR) are charged with implementing the 1997 Fisheries Reform Act to protect and restore resources critical to North Carolina's commercial and recreational fisheries. The three commissions have continued to improve communication and coordination to implement the goals, strategies, and projects of the jointly developed CHHP. The latest plan was adopted by the commissions in 2010.

The N.C. General Assembly funded several CHPP implementation initiatives including four new DCM positions for permit compliance review; funding to begin development of a coastal beach and inlet management plan; and funding to begin removal or retrofitting of municipal stormwater outfalls to coastal waters. Since the approval of the CHPP, the CRC has taken significant steps towards meeting the recommendations of the CHPP such as adopting beach nourishment sediment compatibility standards and amending regulations for a general permit for construction of bulkheads and riprap revetments for shoreline protection to protect fish habitat areas. At the time of the site visit DCM was in the process of completing digitized estuarine shoreline maps which include an inventory of completed man-made structures and analyzing the results which is discussed further below. The estuarine shoreline maps have since been completed.

2. Estuarine shoreline mapping project

During the evaluation period, NCCMP made significant progress on an extensive mapping project of the estuarine shoreline. The shoreline maps will provide the NCCMP and partners with a better

understanding of the current state of the shoreline and development impacts which will enable more informed land use planning and decision making. Numerous partners the evaluation team met with highlighted the project as being very valuable and noted that they anticipated using the results of the mapping project in their future work.

The estuarine shoreline mapping project was initiated in 2006 to create a continuous estuarine shoreline map for the 20 CAMA counties. DCM developed a detailed methodology and shorelines are being digitized using the most recent aerial photography available. The completed county maps are checked by DCM staff using a quality control protocol. At the time of the site visit, digitized maps and a basic statistics and summary analysis has been performed for five counties. The analysis includes calculations of length of five distinct shoreline types (swamp forest, marsh, sediment bank, modified, and miscellaneous), length of the types of modified shoreline (boat ramp, riprap revetment, and bulkhead), and the number of modified structures (bridge, pier/floating dock/wharf, and unknown).

The new shoreline maps will allow DCM to better understand and evaluate existing policies and the effects of development along the shoreline, as well as the effects of permitted activities on coastal residents and the environment. The maps may also be used for research projects such as studying ecosystem function, assisting with cumulative and secondary impact assessments, and analyzing shoreline change. Also, shoreline data may be used to perform a more detailed analysis of modified portions of the shoreline and their resulting impacts on estuarine system services. The NCCMP is also exploring obtaining additional shoreline data in order to perform estuarine shoreline change analyses. Using the shorelines digitized within the ESMP as a baseline, additional shorelines could be used to calculate shoreline change rates and highlight high erosion areas.

Accomplishment: DCM has developed a detailed methodology for digitizing shorelines including structures and has mapped the entire estuarine shoreline for the 20 coastal counties. The maps are a valuable tool for understanding the effects of development and permit decisions along the shoreline.

3. Living shorelines

Living shorelines are shoreline management options that provide erosion control benefits, while also enhancing the natural shoreline habitat. The installation of living shorelines is fairly new on the N.C. coast and many homeowners and contractors are unfamiliar with the benefits to aquatic life and their effectiveness in controlling erosion in different environments. In addition, if a homeowner chooses to install a living shoreline instead of a bulkhead, the permitting process takes more effort and time. Numerous stakeholders the evaluation team met with were interested in seeing living shorelines encouraged, where appropriate, as an alternative to vertical bulkheads and in conducting further research on the North Carolina coast to demonstrate their effectiveness in local environments.

The CHPP includes a recommendation that calls for the protection of fish habitat by revising estuarine and public trust shoreline stabilization rules to promote incentives for the use of alternatives to vertical shoreline stabilization. In support of this recommendation, the NCCMP amended its regulations for a general permit for construction of bulkheads and riprap revetments for shoreline protection in estuarine and public trust waters and ocean hazard areas to encourage alternatives to vertical structures.

Although, the NCCMP has amended its requirements for a general state permit for construction of bulkheads and placement of rip rap for shoreline protection, the permitting process still takes additional time as only vertical bulkheads are covered under a U.S. Army Corps of Engineers Section 404 general permit. While federal and state resource agencies are generally supportive of living shorelines, some prefer to continue to review living shoreline permits on a case-by-case basis.

DCM has undertaken several steps to improve the scientific understanding of the performance of marsh sills and communicate the information to key audiences. DCM convened and coordinated efforts of an Estuarine Biological and Physical Processes Work Group, consisting of estuarine system experts, to address issues related to shoreline stabilization methods and impacts to the environment. In August 2006, the work group developed a report entitled *“Recommendations for Appropriate Shoreline Stabilization Methods for the Different North Carolina Estuarine Shoreline Types.”*

To assist homeowners and contractors with determining the most appropriate stabilization method for their property, NCNERR produced an Estuarine Shoreline decision tree guide. The guide discusses the advantages and disadvantages of (1) vegetation, (2) oyster reefs, (3) marsh sills, (4) riprap, (5) breakwaters, and (6) bulkheads based on a property’s location and exposure. The guide also talks about installation costs and the benefits associated with each option.

The NCCMP arranged for federal and state agency permitting partners to conduct onsite assessments of permitted marsh sills in N.C., which included a qualitative assessment and evaluation of their performance as a stabilization option. The onsite assessment allowed the permitting partners to see the on-the-ground performance of the marsh sills.

The NCCMP partnered with the NCNERR and the NOAA Center for Coastal Fisheries and Habitat Research to apply for a \$715,000 grant from the Cooperative Institute for Coastal and Estuarine Environmental Technology to examine various shoreline stabilization techniques on ecosystem services of shorelines. The investigators will quantify the ecosystem service tradeoffs that result from different shoreline stabilization techniques. The team is also working with partners to develop a knowledge dissemination campaign to deliver the results of this research. OCRM commends DCM for its leading role in researching the performance of bulkhead alternatives and promoting living shorelines in N.C. OCRM encourages the NCCMP to continue to work with the NCNERR to build on living shorelines research and engage in outreach to educate the public, regulators, and contractors on alternatives to bulkheads.

Accomplishment: DCM has conducted key research on bulkhead alternatives and worked to educate the public and contractors on their options to both protect their property from erosion and provide habitat for marine species.

4. Coastal and Estuarine Land Conservation Program

Congress established the Coastal and Estuarine Land Conservation Program (CELCP) in 2002 to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical, or aesthetic values. The program provides state and local governments with matching funds to purchase significant coastal and estuarine lands, or conservation easements on such lands, from willing sellers. Lands or conservation easements acquired with CELCP funds are protected in perpetuity so that they may be enjoyed by future generations.

The CELCP guidelines outline the criteria and process for states to nominate land conservation projects to a national competitive process. The program is coordinated at the state level through each state's CELCP lead within the state's lead coastal management agency. According to CELCP guidelines, each state must develop a CELCP plan which is submitted to OCRM for approval. As part of the plan development process, the Coastal Program solicited input from state and federal agencies, local governments, private conservation groups and interested citizens and meetings were held throughout the coastal zone over the two years of plan development. The CELCP Plan prioritizes projects for contribution to an ecological network, contribution to the conservation goals of existing plans, protection of state natural heritage areas, creation of riparian buffers, supply of public access and recreation, protection of underrepresented ecological themes, protection of important wildlife areas. The *North Carolina CELCP Plan* was approved in 2007 and was one of the first approved CELCP plans in the nation.

The Coastal Program partnered with the North Carolina Wildlife Resources Commission to secure \$3,000,000 in fiscal year 2008 CELCP funds for the Chowan Swamp Acquisition Project. The project was successful and conserved over 2,500 acres of forested wetlands, over 2,700 acres of stream buffer, and almost 4,000 acres of mixed forest habitats.

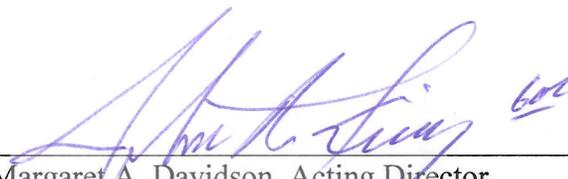
V. Conclusion

For the reasons stated herein, I find that the State of North Carolina is adhering to the programmatic requirements of the Coastal Zone Management Act and its implementing regulations in the operation of its approved North Carolina Coastal Management Program (NCCMP).

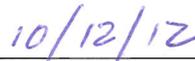
The NCCMP has made notable progress in the following areas: coastal hazards; updates to program rules and regulations, in particular coastal hazards and energy and facility siting; coastal habitat and living shorelines; estuarine shoreline mapping; reducing permit violations; and Clean Marina program development.

These evaluation findings contain six recommendations in the form of Program Suggestions which should be addressed before the next regularly-scheduled program evaluation, but are not mandatory at this time. Program Suggestions that must be repeated in subsequent evaluations may be elevated to Necessary Actions. Summary tables of program accomplishments and recommendations are provided in Appendix A.

This is a programmatic evaluation of the NCCMP which may have implications regarding the State's financial assistance awards. However, it does not make any judgment about or replace any financial audits.



Margaret A. Davidson, Acting Director
Office of Ocean and Coastal Resource Management



Date

VI. Appendices

Appendix A: Summary of Accomplishments and Recommendations

Accomplishments

Issue Area	Accomplishment
Permitting	DENR and NCCMP have improved and streamlined the permit review process and in addition, have improved permit compliance through outreach and education, improved enforcement, and setting larger maximum penalties that serve as a deterrent.
Administration	The NCCMP developed new procedures for better utilizing the expertise of CRAC members to improve coastal planning and decision making.
Administration	The NCCMP reassessed the scientific and technical basis of its rules and adopted new and revised rules that reduce risks to coastal hazards and provide for renewable energy development off the coast of N.C.
Coastal Hazards	The NCCMP developed a Beach and Inlet Management Plan, which provides a framework for improved management of the state's beaches.
Clean Marina Program	The NCCMP revitalized the N.C. Clean Marina program and developed a new Clean Boater program that supports the implementation of best management practices at marinas.
Shoreline Mapping	DCM has developed a detailed methodology for digitizing shorelines including structures and has mapped the entire estuarine shoreline for the 20 coastal counties. The maps are a valuable tool for understanding the effects of development and permit decisions along the shoreline.
Living Shorelines	DCM has conducted key research on bulkhead alternatives and worked to educate the public and contractors on their options to both protect their property from erosion and provide habitat for marine species.

Recommendations

Recommendations are in the form of Necessary Actions (NA) or Program Suggestions (PS).

Issue Area	Recommendation
Administration	PS: OCRM encourages DENR to continue to advocate for maintaining DCM regional offices to provide local citizens and local governments direct access to staff expertise and to allow for the development and maintenance of working relationships, which are important to successfully addressing local coastal management issues.
Administration	PS: OCRM encourages DCM to work with the CRC and CRAC to explore and consider options for CRC meetings to maintain or improve efficiency and effectiveness of coastal decision making and public participation in a budget constrained environment.

Administration	PS: OCRM encourages DCM and the CRC to consider options for increasing access to a broad array of technical expertise such as expanding the types of expertise represented on the science panel and/or creating ad hoc panels for specific issues.
Coastal Hazards	PS: OCRM encourages the NCCMP to continue to enforce existing laws and rules regarding sandbags while continuing to research and explore options for managing sandbag use that result in minimizing public safety concerns and adverse impacts such as erosion on neighboring properties.
Land Use Plans	PS: OCRM encourages DENR and NCCMP to explore and consider setting time frames for review of land use plans and land use plan amendments and reducing the current length of time it takes to conduct reviews.
Clean Marina Program	PS: OCRM encourages DENR to support the Clean Marina program and Clean Boater program to enhance water quality, assist marina and boatyard owners with attracting business, and provide boaters with the opportunity to choose facilities implementing best management practices.

Appendix B. NCCMP Response to 2006 Evaluation Findings

Program Suggestion: DCM should consider undertaking an effectiveness assessment of CAMA to evaluate the existing laws and regulations governing coastal management in the state, prioritize issues facing the coastal zone, and to incorporate emerging issues and lessons learned.

NCCMP Response: STATUS: Completed.

The NC Coastal Area Management Act provides the Coastal Resources Commission broad authority to establish Areas of Environmental Concern in which it may establish objectives, policies and standards to be followed in the public and private use of land and water areas within the coastal area. In particular, the Commission's guidelines address the nature of development most appropriate within the various AECs. These guidelines are used in the review of applications for permits which may impact land and water areas, including underground areas and resources, airspace above the land and water as well as the surface of the land and water. The Commission continually assesses the effectiveness of existing laws and regulations governing coastal management in the state. Changes are made to the administrative rules at each meeting of the Coastal Resources Commission reflecting the input of permitting staff as well as the regulated community. These changes involve the implementation of existing development standards and how the changing nature of development of the coastal is regulated by the coastal program. Since the last program evaluation, the Commission has made sweeping changes to the standards for develop of oceanfront areas, has conducted and assessment of estuarine shoreline stabilization practices and techniques, broadened the Public Beach and Coastal Waterfront Access Program to provide greater opportunities to local government and increased flexibility for the Division in the provision of access, rewritten the administrative rules governing dock and pier development, conducted an inter-agency assessment of marina development, completed an assessment of emerging issues with regard to the State's coastal ocean, addressed alternative energy production through rulemaking and has begun development of an adaptive planning strategy to address sea level rise. Rather than conduct a one time, periodic assessment of the NC Coastal Program, the Division staff work with the CRC at every opportunity to prioritize issues facing the coastal zone, incorporating emerging issues, whether it is "jetdocks," marsh sills or wind turbines, into the state's objectives, policies and standards. It is only through this continual assessment that the NC Coastal Program can build upon past experiences while preparing for the future.

Program Suggestion: DCM should continue to work with the NERN staff to enhance communication and identify opportunities for further cooperation on education, research, and stewardship activities that support DCM management needs and NERR objectives. DCM should also explore options for increasing state support of the NERR and non-NERR coastal reserve sites.

NCCMP Response: STATUS: In Progress.

The Reserve-Division of Coastal Management (DCM) partnership has strengthened considerably in recent years with strong commitments from both the Division Director and Reserve Manager to work more closely together to accomplish the vision of the Coastal Zone Management Act for an

integrated coastal management program. This enhanced positive relationship has yielded more administrative and program support for the Reserve from the Division as well as more program support for the Division from the Reserve. Specific examples of this increased collaborative effort are detailed below:

Collaboration Examples between the DCM and Reserve:

Policy Section

DCM policy staff provides technical and policy support to the Reserve and has assisted Reserve staff in evaluating and drafting revisions to the Reserve rules in the N.C. Administrative Code.

- The NCNERR CTP Coordinator assisted with the DCM's Clean Marina Program, hosting workshops in 2007, and funding and supervising Clean Marina temporary staff in 2007. The CTP Coordinator also worked with the Clean Marina Coordinator on the 2010 workshops and outreach materials related to the recent EPA designation of No Discharge Zones in three coastal counties.
- The NCNERR CTP Coordinator worked with the policy section on two successful grant applications to the N.C. Clean Water Management Trust Fund for a stormwater control plan and implementation for Pivers Island, and hosted a Stormwater Technology Fair in 2005 in support of the first grant award.
- The policy section also worked with the Reserve manager on two successful acquisition projects resulting in land additions to the Masonboro Island NERR and the Kitty Hawk Woods Coastal Reserve.
- The NCNERR Education Coordinator and Manager collaborated with the policy section to facilitate the Estuarine Shoreline Mapping Summit in 2007.
- The NCNERR Education Coordinator developed a stormwater management flyer for the Coastal Resources Advisory Committee (2007).
- The Reserve Research Coordinator served on the DCM's Ocean Policy Steering Committee which evaluated emerging ocean policy issues and developed recommendations for the N.C. Coastal Resources Commission.

Permitting Section

- The permitting staff provides consultation on coastal development related activities (e.g., dredge spoil deposition, derelict vessels, permit guidance) and issues permits for relevant projects.
- The NCNERR CTP Coordinator worked with the permitting section to develop and deliver coastal development rule update workshops for marine contractors in 2007.
- The NCNERR CTP Coordinator has provided assistance with annual Local Permit Officer trainings and administered a needs assessment of Local Permit Officers in 2009.
- The NCNERR Education Coordinator provided wetlands species identification training for the Local Permit Officers (2008).
- The NCNERR CTP Coordinator worked with the permitting section to develop and deliver a workshop on beach fill permitting for regulatory staff in 2009.

- The Reserve Research Coordinator provides federal consistency review for relevant permit applications.
- District managers serve on the Reserve component LACs.

Public Information

- DCM's PIO coordinates interactions with the media including writing and distributing press releases and fielding questions from the public and media.
- DCM's PIO reviews all Reserve products and publications.
- DCM's PIO compiled the newsletter for the Reserve's friends group, the Carolina Estuarine Reserve Foundation.
- DCM's PIO helped to develop and implement a social media (Twitter and Facebook) campaign as part of a broader public education campaign about the importance of N.C. estuaries.

General Division Support

- The Division provides traditional program support for the Reserve including budgeting, purchasing, and human resources services. The Division has been very supportive of the Reserve's use of the Attorney General's office for consultation and legal opinion purposes.
- The NCNERR Education Coordinator developed a Division-wide Education Plan in 2007 to increase public awareness of the mission and goals of the Division.
- The Reserve's CICEET-funded stabilized shorelines project addresses a high priority policy issue for the coastal management program and includes two DCM staff on the project advisory committee (Director Jim Gregson and Coastal Engineer Bonnie Bendell).
- The NCNERR Education Coordinator and Reserve Technician developed an Estuarine Shoreline Stabilization decision tree for the Division to provide property owners guidance in determining what type of shoreline stabilization structure they should consider.
- The NCNERR Education Coordinator wrote an Estuarine Shoreline Stabilization Education Plan for the Division (2008).
- The NCNERR CTP Coordinator administered a needs assessment of the DCM staff in 2009.
- The NCNERR CTP Coordinator worked with DCM leadership to develop and deliver a Coastal Services Center training to all DCM staff on communication techniques for working with the public in 2009.
- Mr. Lopazanski helps with land acquisition for the NCNERR components.
- Division staff provides support for a variety of on-site activities including clean-ups, trail maintenance, and monitoring of site conditions.
- Division staff regularly speaks at CTP workshops.

Positive steps have been taken by DCM and the Reserve to increase state fiscal support of the NCNERR and to ensure more appropriate use of 315 funds:

- The Reserve Manager position, which oversees both the NCNERR and the NCCR, is now fully supported by state funds. This position was historically state-funded, but was funded by state funds and 315 funds (50:50) from 2003-2005 as a result of state budget cuts. Since

2006 the Reserve Manager's position has been fully funded by state appropriations and 100% of salary was used as State match. In fiscal year 2009-2010 only 75% of the Manager's salary was used as match since 25% of the Manager's time is spent on state site issues.

- The DCM continues to provide state funds to support the operations of the NCNERR which includes building leases, vehicle leases, travel, supplies, and other miscellaneous expenses.
- Supplies and travel for state reserve sites continue to be provided by either state funds or CZMA 306 funds and are tracked accordingly.
- A portion of the DCM Public Information Officer's salary and fringe continues to match the 315 award for document review and Carolina Estuarine Reserve Foundation newsletter preparation.
- The DCM provided \$25,914 in state funds to match construction award NA06NOS4200052 to complete the joint CCFHR-NCNERR administration and education building in Beaufort, North Carolina during fiscal years 2006-2007 and 2007-2008.
- The DCM supported state funding of both the Research Coordinator and Northern Sites Manager positions as its top budget request to DENR for fiscal years 2008-2009 and 2009-2011. Both positions are currently funded by the NCNERR 315 grant. The Research Coordinator was historically funded with state appropriations until fiscal year 2002-2003 when budget cuts forced the position to be funded by the 315 grant. As a core position of the Reserve, it is a high priority to move this position back to state funding to match the 315 grant. The Northern Sites Manager is responsible for managing one NCNERR site (Currituck Banks) and two state sites. State funding of this position will allow for more appropriate use of 315 funds by not using 315 funds to manage the two state sites and one-third of the position may be used to match the 315 grant, providing an additional source of match for the 315 grant. DENR included this item in its 2008-2009 budget for the Governor, but the item was not included in the final gubernatorial budget.
- The DCM supported creation and state funding of a Central Sites Manager for the Reserve as its fourth out of five top budget requests to DENR for fiscal years 2008-2009 and 2009-2011. The Central Sites Manager would manage one NCNERR site (Rachel Carson) and one state site. Creation and funding of this position would fulfill a high priority staffing need and one-half of the position may be used to match the 315 grant, providing an additional source of match for the 315 grant. DENR did not include this budget item in its 2008-2009 or 2009-2011 budget requests to the Governor.
- The Reserve staff continues to remain diligent in clarifying NCCR and NCNERR activities and funding sources. Reserve materials, the new logo, and website reference the appropriate funding source and include the entire Reserve title, "North Carolina Coastal Reserve and National Estuarine Research Reserve," to better recognize the NCNERR part of the program.

Program Suggestion: DCM is encouraged to work proactively to ensure that existing public access sites are maintained with new developments or redevelopments and that a focus remains on

improving access to the estuarine environments. DCM should move forward with the development of a needs assessment to determine access gaps and priorities to effectively improve public access.

NCCMP Response: Status: DCM has amended the state’s Shorefront Access Policies to enhance the opportunities for land acquisition for water access through the Public Beach and Coastal Waterfront Access Program. Special attention has been given to rural slow growth estuarine communities and counties by significantly lowering cash matching requirements for both acquisition and improvements for access sites. DCM has not formally initiated a needs assessment both due to backlog in communities updating Land Use Plans, as well as shortfall in resources, and a permanent loss of two planner positions since the last assessment due to state budget cuts.

The CRC has established a Land Use Plan Review Subcommittee that is considering amending rules to require a local inventory of both all public and commercial access sites as well as those that may be considered traditional or historic access locations not managed by public agencies as part of the Land Use Plan’s background analysis addressing access.

Program Suggestion: DCM should continue to improve the identification and management of cumulative and secondary impacts, and to work with partner agencies to improve and clarify the regulatory process so that cumulative and secondary impacts are consistently considered in permitting decisions.

NCCMP Response: Status: In-progress.

The major permit review process provides a very real example of applying Cumulative and Secondary Impacts (CSI) to permit reviews. For example, resource agencies have been providing more detailed comments and/or objections to several types of permit applications (i.e., bulkheads with wetland fill, docks in shallow waters). These objections are becoming more based on the cumulative impact of multiple projects of similar nature in the general area of the proposed project. Additionally, DCM staff have been directed to increase the amount of information in our field investigation reports (these reports are provided along with the permit application to all commenting agencies) to give commenting agencies a better idea as to how a proposed project may contribute to CSI impacts with its specific project setting. Additionally, the Department of Environment and Natural Resources has recently published a set of guidelines for better incorporating CSI reviews into projects undergoing a review under the N.C. Environmental Policy Act (NCEPA). In keeping with this effort, DCM is requiring that applicants who must undergo this NCEPA review provide more CSI data in their environmental documents.

Response to CSI concerns are often times more properly handled programmatically through rule adoption as opposed to their application on a case-by-case basis. The Coastal Resources Commission continues to explore areas of their rules that may need revision to better incorporate CSI issues. For example, the CRC continues to consider rule issues relating to CSI concerns regarding shoreline stabilization projects and docking facilities that are proposed in shallow waters

The Division is continuing the development of our C-DAITS database. Upon its full implementation, the ability for resource managers and the CRC to access better and more complete information upon which to base will be greatly enhanced.

Program Suggestion: While DCM has made progress in determining sand compatibility criteria and is considering development of a beach and inlet management plan, DCM is encouraged to work with appropriate partners to assess renourishment needs and priority areas on the coast to promote proactive coordination with local communities, to determine feasible funding scenarios, and to maintain adequate and suitable sand supplies.

NCCMP Response: STATUS: Completed

The NC Beach and Inlet Management Plan (BIMP) final report has been completed and delivered to the Coastal Resources Commission, NC DENR, and the N.C. General Assembly. The BIMP is a comprehensive plan for the conservation, management and long-term sustainability of North Carolina's beaches and inlets. The plan is intended to achieve three primary objectives:

- (1) begin to comprehensively evaluate the condition of the state's beaches, and provide estimates of the total and annual costs of beach maintenance;
- (2) promote a regional approach that allows for consideration of related segments of the coast and not merely a project by project focused approach, and
- (3) support the need to develop a long-term stable and predictable funding mechanism to support the state's shoreline management and beach restoration programs and strategies.

Program Suggestion: The CRC should consider broadening the Science Panel to include a more diverse array of expertise to improve its ability to address additional emerging issues.

NCCMP Response: STATUS: Completed.

DCM worked to expand the Science Panel in 2008 to include five new members (three geologists, one coastal engineer, and one oceanographer). With the exception of the new oceanographer and one marine biologist, the 13-member panel retains a relative balance between geologists (six) and engineers (five), which has been the intent when considering new members. DCM, the CRC, and the Science Panel feel that the current membership and size reflects the knowledge base necessary to continue to effectively address the priorities outlined by the Panel, the CRC, and DCM (including sea level rise, potential use of terminal groins at inlets, oceanfront erosion rates, inlet hazard area revisions). As these priorities shift, DCM will revisit the membership of the Panel with the Panel's chair and membership as well as the CRC.

Program Suggestion: DCM is encouraged to seek out additional funding sources or partnership opportunities to assist communities with implementation of their local land use plans.

Program Suggestion: While DCM staff do a great job in providing technical assistance to local communities in developing land use plans, DCM should consider more in-depth assistance to rural communities that lack local planning capacity or communities not previously faced with high development pressures to ensure that the impacts to coastal resources and to the community character are adequately addressed in local land use plans.

NCCMP Response: STATUS: Though DCM has made efforts to identify additional funding resources, both state and regional agencies (COG's) fiscal resources and most federal resources have significantly been reduced over the last several years. Despite the fiscal environment, some progress has been made in enhancing the coordination between various state agencies most notably NC DOT, NC Division of Water Quality, and the Division of Emergency Management. DCM continues to be backlogged in assisting local communities in updating their Land Use Plans (LUP). Severe fiscal constraints and limited staff have continued to hamper this effort. Additionally efforts continue towards partnering with other sister state agencies related to other federal programs and partnerships despite the lack of state matching funds. Most notably DCM has attended numerous meetings involving FEMA and EPA's partnering efforts for local government sustainability planning grants.

Program Suggestion: DCM is encouraged to assess if the existing state standards are sufficient for the types of large development more commonly proposed and to develop a plan for incorporation of cumulative and secondary impacts from the developments into the permitting process.

NCCMP Response: STATUS Completed (standards for large development only and not impacts from development). DCM reviewed and revised appropriate CRC rules for oceanfront setbacks based on development patterns observed in North Carolina. Only half of our State's 326 miles of oceanfront shoreline is (and can be) developed. Of the latter, the majority of development is not large scale (e.g., only 24 buildings are six stories and higher) but, rather, single-family in nature. The new setback rules (07H.0312), which became effective in August 2009 increase the setback for all single-family and multi-family structures greater than 5,000 square feet (prior rules only assigned a setback of 30 times erosion rate to single-family and multifamily development less than four units regardless of total size). Furthermore, all development greater than 10,000 square feet now faces a graduated setback between 60 and 90 times erosion rate based on building size. Finally, the former provision that allowed for smaller setbacks in areas of higher erosion rates (3.5 feet per year and greater) has been removed from the rules. Additional changes in exceptions to this rule (07H.0104 and 07H.0309) now limit total square footage to less than 2,000 square feet and require development to be no further oceanward than the landward-most adjacent building (usually requiring a setback greater than the minimum of 60 feet landward of the vegetation line).

Appendix C. Persons and Institutions Contacted

Department of Natural Resources

Name	Position
Dee Freeman	Secretary of DENR
Robin Smith	Assistant Secretary
David Knight	Assistant Secretary
Coleen Sullins	Director, Division of Water Quality
Edythe McKinney	Express Permitting Program
Bill Crowell	Director, Albermarle-Pamlico National Estuary Program
Louis Daniel	Director, North Carolina Division of Water Resources
Tom Reeder	Director, Division of Water Resources
Janine Nicholson	Interagency Projects Coordinator, Climate Change Strategies
Linda Pearsall	Director, Office of Conservation, Planning and Community Affairs
Mike Remige	Manager, Jennette's Pier

NC Division of Coastal Management

Name	Title
Jim Gregson	Former DCM Director
Ted Tyndall	DCM Assistant Director for Permits and Enforcement
Roy Brownlow	Compliance Coordinator and MHC Office Manager
Mike Lopazanski	Rule Making and Policy Manager
Tancred Miller	Policy Analyst
Doug Huggett	Major Permits and Federal Consistency
Ken Richardson	GIS Analyst
David Moye	DCM Washington Office District Manager
John Thayer	Land Use Planning and Public Access
Pat Durrett	Clean Marina Coordinator
Frank Jennings	Elizabeth City Office Manager
Lisa Cowart	Estuarine Shoreline Mapping
Steve Underwood	Coastal Hazards
Michele Walker	DCM Public Information Officer
Rebecca Ellin	Coastal Reserve and NERR Manager
John Fear	Reserve Research Coordinator
Whitney Jenkins	NERR Training Coordinator
Lori Davis	Reserves Education Specialist

Coastal Resource Commission

Name	Title
Bob Emory	CRC Chair

Joan Weld	CRC Vice Chair
Renee Cahoon	Nags Head Commissioner and CRC member

Other

Name	Affiliation
Representative Pat McElraft	North Carolina State Legislature
Linda Rimer	U.S. Environmental Protection Agency
Michael Voiland	Executive Director, North Carolina Sea Grant
Johnny Martin	Moffatt and Nichol
Ron Sechler	NOAA National Marine Fisheries Service, Habitat Conservation
Rudi Rudolph	Carteret County Shore Protection Officer
Ray Sturza	Kill Devil Hills Mayor
Webb Fuller	Former Southern Shores Town Manager and current? CRAC member
Bob Oaks	Mayor Town of Nags Head
Brian Roth	Mayor Town of Plymouth

Appendix D: Persons Attending the Public Meeting

One public meeting was held on Wednesday September 14, 2009 at 6:30 p.m. at 101 Pivers Island Road, Beaufort, North Carolina. No members of the public attended the public meeting

Appendix E: OCRM'S Response to Written Comments

OCRM did not receive written comments regarding the North Carolina Coastal Zone Management Program.