

NORTH CAROLINA'S COASTAL HABITAT PROTECTION PLAN

2015 - 2016

ANNUAL REPORT

TO THE

ENVIRONMENTAL REVIEW COMMISSION

AND THE

JOINT LEGISLATIVE COMMISSION ON GOVERNMENTAL OPERATIONS

OF THE

NORTH CAROLINA GENERAL ASSEMBLY

FROM THE

MARINE FISHERIES COMMISSION,

COASTAL RESOURCES COMMISSION,

ENVIRONMENTAL MANAGEMENT COMMISSION,

AND THE

DEPARTMENT OF ENVIRONMENTAL QUALITY

September 2016

2015-2016 Annual Report

Background

North Carolina's Coastal Habitat Protection Plan (CHPP), mandated by the 1997 Fisheries Reform Act and drafted by then Department of Environment and Natural Resources (DENR) staff, now the Department of Environmental Quality (DEQ), was adopted in 2004 by the N.C. Environmental Management Commission (EMC), Coastal Resources Commission (CRC), and Marine Fisheries Commission (MFC). Following adoption, the department's staff developed two-year implementation plans in 2005, 2007, 2009, and 2011. These plans detailed specific steps each participating agency agreed to focus on during those timeframes. The CHPP Steering Committee, a subset of commissioners from the CRC, EMC, and MFC, leads in setting implementation priorities. Implementation progress and accomplishments have been reported annually since 2006 through the CHPP Annual Report. While the latest 5-year revision of the CHPP is finalized, the department will continue to use the 2011 Implementation Plan.

Implementation Progress

The 2015-2016 reporting term was spent revising and rewriting the CHPP document. Several new commissioners were appointed to the Steering Committee, and with each new commissioner came a new set of eyes and ideas. At the August 2015 Steering Committee meeting, the commissioners asked that the CHPP document be drastically altered to include a much shorter plan intended for a broader audience and a source document which contained the great majority of the science. The two documents would go hand in hand, but the new, shorter CHPP would have broader appeal to the general public. With that in mind, the department requested an extension into the first quarter of 2016 to get the documents before the three commissions, and the N.C. General Assembly granted the request. The plan was approved by each of the three commissions in the first half of 2016. The final CHPP documents are currently being prepared by DEQ for submission to the N.C. General Assembly. As noted above, the department's staff opted to continue working on actions from the 2011-2013 Implementation Plan, rather than attempt to develop a 2013-2015 plan during the ongoing transitions.

This past year, DEQ staff were actively engaged in the latest revision and then making the necessary changes that were requested by the CHPP Steering Committee at the August 2015 meeting. Over 25 staff members from DEQ have been involved in the current revision process and they have been recognized in the document itself for their contributions. The document, besides being written for a wider audience and drastically shortened, also includes new graphics, which should add to its appeal. New information on the economic value of coastal fish habitats, due to enhanced fish production and ecosystem services, was highlighted throughout both documents. The source document was restructured and the habitat chapters were shortened. This effort reduced many of the redundancies seen in the previous two documents.

The CHPP Steering Committee, along with DEQ staff, has met on at least a quarterly basis since January 2015, reviewing the draft plan and making suggestions for revisions and updates. The current draft plan has also identified four priority habitat issues to focus on over the next five years: oyster restoration, living shorelines, sedimentation, and developing metrics.

Some work related to the priority issues has already begun. The Division of Marine Fisheries has been working on oyster restoration for many years through the building of oyster sanctuaries and the creation and enhancement of harvestable oyster reefs (planting of cultch material). The CHPP identifies oyster reefs as being "*critical economically for the seafood industry, and ecologically for improving water quality and*

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providing fish habitat.” The General Assembly, in its most recent budget, included additional funding for the expansion of the oyster restoration efforts currently underway.

Living shorelines are critical to protecting eroding shorelines as well as restoring fish habitat and ecosystem services. The CHPP states that, “*Research in North Carolina has shown that living shorelines support a higher diversity and abundance of fish and shellfish than bulkhead-stabilized shorelines, effectively deter erosion, and survive storm events well.*” The Division of Coastal Management (DCM) has an internal working group that meets quarterly to follow up on actions and research issues identified in their living shorelines strategy, which is available on [DCM’s website](#). Currently, discussions are underway regarding the U.S. Army Corps of Engineers Nationwide Permit as it pertains to living shorelines, with the hope that the discussions will lead to a streamlined permitting process, which in combination with the other benefits of living shorelines would be an incentive for property owners to choose a living shoreline method over a vertical stabilization method.

Addressing sedimentation is a priority primarily because there are a number of potential negative impacts from sedimentation on coastal habitats and water quality. While a moderate amount of sedimentation is needed to support soft bottom habitat and wetlands, excessive amounts “*can silt over existing oyster beds and submerged aquatic vegetation, smother invertebrates, clog fish gills, reduce survival of fish eggs and larvae, reduce recruitment of new oysters onto shell, and lower overall diversity and abundance of marine life.*” Pollutants also bind to the sediment particles and are transported into the estuarine system. More work is needed on the sources and rates of sedimentation in coastal waters and the effects on fish habitats.

Developing metrics to assess habitat trends and management effectiveness is the cornerstone of habitat protection and restoration. Without them, if and to what extent habitat conservation measures are needed is unknown. The development of metrics requires mapping efforts to identify trends in habitat distribution, developing indicators to assess habitat condition, the monitoring of fish habitat use in priority areas, and developing performance criteria to determine the success of management initiatives.

Work is already underway with regard to the identified priority issues. Mapping and restoration of oyster reefs and shell bottom continues to be carried out by DMF. The Albemarle-Pamlico National Estuary Partnership (APNEP) continues to take the lead on mapping of the presence and extent of submerged aquatic vegetation. Partners such as university and National Oceanic and Atmospheric Administration scientists continue to study sedimentation and accretion in coastal wetlands to assess change and study the quality of the sediment inputs. APNEP continues to work on identifying indicators and DWR is currently leading a multiagency effort to set nutrient criteria for the waters of the state.

Staff from DEQ continues to meet with federal partners and other state agencies on a quarterly basis to review current permit requests and to strengthen the lines of communication between the commenting agencies. DCM has taken the lead in this effort.

Progress on CHPP Review and Revision

The 5-year review and revision of the CHPP as required under the 1997 Fisheries Reform Act is in the final stages of the process. In an effort to streamline the document, it has been reorganized to reduce redundancy, and the CHPP writing team has focused on priority issues, as directed by DEQ and the CHPP Steering Committee. Those priority issues, as mentioned above, include:

- Increasing oyster habitat restoration and enhancement activities
- Increasing the use of living shorelines for erosion control
- Addressing sedimentation and its effects on estuarine creek habitat
- Generating metrics on management success and habitat trends

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While DMF staff led in working on the revised plan, agency staff from throughout the department, as well as staff from the N.C. Forest Service, the Division of Soil and Water within the N.C. Department of Agriculture and Consumer Services, and the U.S. Army Corps of Engineers have also actively participated in the CHPP revision.

Important to Remember

In 2014, the department requested the CHPP process and direction be re-evaluated and modified so that the CHPP remains vital and relevant in sustaining our state's natural resources, and that it supports the Department's priorities and mission statement. Those suggested changes are attached to this annual report again this year for the purpose of reminding readers of the changes that have been made to the process and to report on the accomplishments the department has made over the now 11-year history of this document.

Current CHPP Steering Committee Members

Mr. David Anderson - Environmental Management Commission
Mr. Larry Baldwin - Coastal Resources Commission
Mr. Chuck Laughridge – Marine Fisheries Commission
Dr. Robert Rubin – Environmental Management Commission
Mr. John Snipes – Coastal Resources Commission
Ms. Alison Willis – Marine Fisheries Commission

North Carolina Coastal Habitat Protection Plan Purpose, Process, and Direction (2014)

Purpose of the Plan

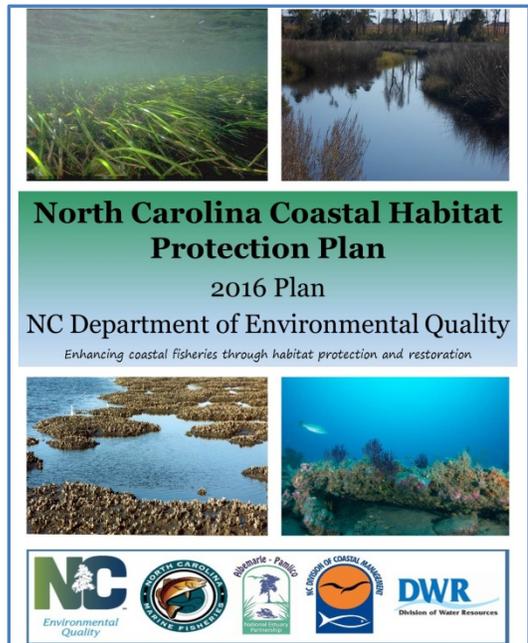
The 1997 Fisheries Reform Act (SL 1997-400) mandated that a N.C. Coastal Habitat Protection Plan (CHPP) be developed by the N.C. Department of Environment and Natural Resources (DENR), now the Department of Environmental Quality (DEQ), for the purpose of long term enhancement of coastal fisheries through the protection and restoration of coastal fish habitat. This legislation was initiated because of widespread water quality issues such as increasing algal blooms, fish kills, oyster disease, and shellfish harvest closures.

CHPP Accomplishments

Through an inter-commission approach, the CHPP has been successful in implementing a number of recommendations, with the majority of the plan actions being non-regulatory in nature. Accomplishments include:

- Increased outreach and education
- Improved communication between agencies
- New mapping and research
- Oyster and fish passage restoration
- Compliance with existing regulations

Positions and funding to undertake CHPP recommendations have been obtained through past appropriations and grants. The most notable accomplishment of the CHPP process has been the improved interagency and inter-commission communication and coordination, which improves effectiveness and efficiency of processes within DEQ.



CHPP Process

The law specifies that the CHPP include a description of North Carolina’s coastal fish habitats, their ecological functions, value, status, and threats, as well as recommended actions to protect, enhance, and restore fish habitat. The focus of initial efforts involved developing a process and gathering the necessary data by which the Marine Fisheries, Coastal Resources, and Environmental Management Commissions could make informed recommendations. The result was a lengthy document that compiled the results of a large amount of relevant research on coastal habitats. Biennial implementation plans were then developed based on recommendations of the Steering Committee. The initial plan was completed and approved in 2005 and updated in 2010. As the next five-year update is scheduled for completion in 2015, there is an opportunity to re-evaluate the current process and plan structure in an effort to streamline and enhance the program.

Changes Proposed for Continued Success

After 10 years of implementation, DEQ staff evaluated the CHPP processes and suggested several changes to allow continued implementation of the program while achieving improved efficiencies. The proposed changes would not require a legislative action. We propose to realign the CHPP updates to be similar to the existing DMF Fishery Management Plan (FMP) amendment process. Both the Fishery Management and CHPP plans are required to be reviewed and revised at least every five years. In an FMP amendment (or update), staff focus on the development of individual “information papers” that assess specific relevant

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issues, with only necessary updates to the background text. The issues are identified by staff on the Plan Development Team or an Advisory Committee.

- 1) **Focus on the Science.** The CHPP Team, consisting of staff from the Divisions of Marine Fisheries, Coastal Management and Water Resources, will identify current relevant habitat issues. Involvement from the Division of Energy, Mineral, and Land Resources will be considered since that division now oversees stormwater management. With input from the CHPP Steering Committee, which is comprised of two commissioners from each commission, staff will develop background information on primary habitat and water quality matters for inclusion in the threats section of the updated plan. Updates to the background text will be limited to those necessary to adequately support development of recommendations. Priority will be given to action recommendations with an emphasis on increasing knowledge and understanding of cause and effect through study, monitoring and research and gap analysis.
- 2) **Streamline.** The plan's background text will be streamlined to make the document more reader friendly. Once completed, the bulk of the information now in the CHPP will serve as the foundation and require limited modification to background information in subsequent plan updates. Each updated plan is a stand-alone document.
- 3) **Fewer meetings.** Commission involvement (CHPP Steering Committee) will be reduced to annual meetings instead of the quarterly or semi-annual meetings. The CHPP Steering Committee may meet more regularly during plan updates. Status reports on implementation will be provided to the CHPP Steering Committee at their annual meeting. Reports on implementation progress may optionally be presented to the full commissions to further engage and educate commissioners on environmental issues.
- 4) **Fewer reports.** CHPP Implementation Plans will be restricted to issues addressed in CHPP amendments and will be updated on five-year cycles to coincide with the plan update. Like Fishery Management Plans, an update can be initiated sooner than five years if it is determined that a habitat issue needs to be addressed before the five-year update.

The vision for the Coastal Habitat Protection Program is to continue to use the plan and process as a tool to enhance communication across the DEQ divisions and commissions and to improve effectiveness in sustaining our state's natural resources.