

NORTH CAROLINA COASTAL HABITAT PROTECTION PLAN

By

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ADOPTION OF NORTH CAROLINA COASTAL HABITAT PROTECTION PLAN AND AGREEMENT TO PREPARE IMPLEMENTATION PLANS

The Chairmen of the North Carolina Environmental Management Commission, Coastal Resources Commission, and Marine Fisheries Commission affirm that their respective Commissions adopt the North Carolina Coastal Habitat Protection Plan, as provided in General Statute 143B-279.8.

We recognize the importance of North Carolina's coastal fisheries resources and the commercial and recreational fisheries they support. The continued existence and enhancement of these resources depend on the health of the aquatic habitats they occupy. We pledge to cooperatively manage these aquatic habitats to ensure the long-term viability of the coastal fisheries resources. We agree that these Commissions will work to accomplish the following goals:

GOAL 1 – Improve effectiveness of existing rules and programs protecting coastal fish habitats

GOAL 2 – Identify, designate, and protect strategic habitat areas

GOAL 3 – Enhance habitat and protect it from physical impacts

GOAL 4 – Enhance and protect water quality

By July 1, 2005, the three Commissions and the Department of Environment and Natural Resources will each prepare and adopt Coastal Habitat Protection Implementation Plans to accomplish the goals listed above. The Implementation Plans will establish priorities and identify actions to be taken within specified time periods, including measures of success. The Department and the three Commissions will review progress annually and revise their plans at least every five years.

Chairman, Environmental Management Commission	Date
Chairman, Coastal Resources Commission	Date
Chairman, Marine Fisheries Commission	Date
Secretary, Department of Environment and Natural Resources	Date

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Scores of state and federal agency staff, administrators, and scientists; university researchers; and members of various North Carolina regulatory commissions and their advisory bodies have contributed to the successful completion of this document since planning formally began in 1998. The foresight of the North Carolina Moratorium Steering Committee in 1996, in recommending establishment of a Coastal Habitat Protection Plan (CHPP), provided the foundation for this effort. The North Carolina General Assembly adopted the Fisheries Reform Act, including a mandate for the Coastal Habitat Protection Plan, on 14 August 1997, and Governor James B. Hunt, Jr. signed the Act a few hours later.

The Department of Environment and Natural Resources (DENR) established the Coastal Habitat Protection Plan Development Team in March 1998. The Team developed the program's guidelines, which were adopted by the Environmental Management (EMC), Marine Fisheries (MFC), and Coastal Resources (CRC) commissions in June of that year. The Team has continued to play a central role in preparation of the CHPP, providing technical and process advice, reviews and edits, and circulating drafts within their agencies for review, and we are most grateful for the Team's dedication and accomplishments. Team members have changed somewhat over the years, including the following persons (in addition to the authors): Katy West and Mike Marshall (Division of Marine Fisheries – DMF), Dianne Reid, Gloria Putnam, Bonnie Duncan, and Patricia MacPherson (Division of Water Quality – DWQ); Steve Underwood, Mike Lopazanski, and Patricia Hughes (Division of Coastal Management – DCM); Bennett Wynne (Wildlife Resources Commission – WRC); Steve Murphey, Jonathan Andre, and Shannon Jenkins (Division of Environmental Health – DEH); and Ronnie Smith (U. S. Fish and Wildlife Service). Elizabeth B. Noble (currently with Elizabeth City State University) and Christopher Perle are former members of the CHPP staff, and we are grateful for their contributions to the program and document.

The three regulatory commissions established the Intercommission Review Committee (IRC), comprised of two members from each of the commissions, in June 1998 to provide policy oversight for the CHPP process. Most members also reviewed and edited draft chapters of the CHPP, especially during 2003 – 2004. Most importantly, the IRC developed the recommendations contained in Chapter 9. Membership has also changed over the years, including the following individuals: Pricey Taylor Harrison, Lee Wynns, and David Beresoff (CRC); Charles H. (Pete) Peterson and Will Fowler (EMC); and Barbara Garrity-Blake, B. J. Copeland, Tim Nifong, and Willy Phillips (MFC). We thank these persons for their dedication to the CHPP process, perseverance, and ability to make the hard choices involved in developing the recommendations during 2004.

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The CHPP program convened a meeting of about 50 scientists in February 2000. Deliberations produced excellent advice for the CHPP staff to use in organizing and preparing this document. Many of the scientists in attendance continued to participate in the CHPP program since that time by providing references and data, and reviewing draft material. Attendees are listed in the report of that meeting (Coastal Habitat Protection Plan Development Team. 2000. Coastal habitat protection plan program workshop on critical fish habitats: February 29, 2000 meeting summary. N. C. Department of Environment and Natural Resources, Division of Marine Fisheries, 31 p.).

Staff of the DENR Office of Conservation and Community Affairs made an important contribution to public understanding of the CHPP in 2004 by preparing an excellent and colorful non-technical CHPP

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EXECUTIVE SUMMARY

This document is intended as a resource and guide for implementation of the goals and recommendations in Chapter 9 (Table 9.2).

North Carolina's coastal fisheries are among the most productive in the United States because of the wide variety of habitats available, the largest estuarine system (2.3 million acres) of any single Atlantic coast state, location of North Carolina at the transition between mid-Atlantic and south Atlantic regions, and a management system that supports active citizen participation. The condition of some important fish stocks declined during the late 1980s and early 1990s (for example, river herring, weakfish, and summer flounder) as fish kills and water-borne disease outbreaks increased. Protection and enhancement of fish habitats utilized by such species would be especially beneficial in supporting stock recovery.

Recognizing the critical importance of healthy and productive habitats to produce fish for human benefits, the North Carolina General Assembly included a provision in the Fisheries Reform Act of 1997 instructing the Department of Environment and Natural Resources (DENR) to prepare Coastal Habitat Protection Plans (CHPPs). The legislative goal of the plans is long-term enhancement of coastal fisheries associated with each habitat.

A unique feature of the plans is that three regulatory commissions (Environmental Management, Coastal Resources, and Marine Fisheries Commissions) are to adopt and implement the plans, thus requiring a coordinated management approach. The plans are to include information on the description, distribution, function, status and trends of important habitats; threats to those habitats; and recommendations to address the threats. The CHPP area includes all eight of the river basins that drain to the coast of North Carolina. Because the Fall Line is the upper limit for migration of almost all coastal fisheries species, emphasis is placed on the area downstream from that point.

The DENR and Commissions began working on the plans in 1998. The comprehensive approach established by the General Assembly had never been used before in the United States, so the department tried several different approaches before deciding to use the six basic fish habitat types as the framework for the plans:

- Water column
- Shell bottom
- Submerged aquatic vegetation (SAV)
- Wetlands
- Soft bottom
- Hard bottom

Documented locations of selected fish habitats in eastern North Carolina are shown in the attached, foldout map. Once the habitat approach had been established, the DENR and Commissions moved on to address the tasks listed in the Act. After reviewing the results of hundreds of scientific studies and input from experts and citizens alike, it became even more apparent that North Carolina's coastal fish habitats are seriously threatened by many human activities. The water column and shell bottom are the most threatened habitats, shell bottom because there is so little of it left, and the water column because there are so many pollution sources. The greatest single threat to North Carolina's coastal fish habitats is probably stormwater runoff, which carries sediment, wastes, and chemical pollutants into coastal waters, reducing water clarity, promoting algal blooms, decreasing dissolved oxygen, and reducing the benefits that a healthy coastal system would provide to coastal residents and visitors. The threat of stormwater pollution is exacerbated by increased surface and groundwater withdrawals needed to meet the water needs of a growing population.

The CHPP development process identified hundreds of management needs. The three Commissions reviewed the threats, along with possible management actions to address them. The Commissions selected four general goals and a series of recommendations to reach each goal, as shown below. Implementation of these recommendations will involve new program activities and revised priorities for existing programs within DENR and other agencies. Significant new funding is essential. Prioritization of the recommendations will occur in each Commission's implementation plan to be developed in 2005.

GOAL 1. IMPROVE EFFECTIVENESS OF EXISTING RULES AND PROGRAMS PROTECTING COASTAL FISH HABITATS

- Enhance enforcement of, and compliance with, Coastal Resources Commission (CRC), Environmental Management Commission (EMC), and Marine Fisheries Commission (MFC) rules and permit conditions.
- Coordinate and enhance water quality, physical habitat, and fisheries resource monitoring (including data management) from headwaters to the nearshore ocean.
- Enhance and expand educational outreach on the value of fish habitat, threats from human activities, effects of non-native species, and reasons for management measures.
- Coordinate rulemaking and enforcement among regulatory commissions and agencies.

GOAL 2. IDENTIFY, DESIGNATE, AND PROTECT STRATEGIC HABITAT AREAS

- Evaluate potential Strategic Habitat Areas by:
 - Coordinating, completing, and maintaining baseline habitat mapping (including seagrass, shell bottom, and other bottom types) using the most appropriate technology,
 - Selective monitoring of the status of those habitats, and
 - Assessing effects of land use and human activities on those habitats.
- Identify and designate Strategic Habitat Areas using ecologically based criteria.
- Analyze existing rules and enact measures needed to protect Strategic Habitat Areas.
- Improve programs for conservation (including voluntary actions) and acquisition of areas supporting Strategic Habitat Areas.

GOAL 3. ENHANCE HABITAT AND PROTECT IT FROM PHYSICAL IMPACTS

- Greatly expand habitat restoration, including:
 - Creation of subtidal oyster reef no-take sanctuaries, and
 - Re-establishment of riparian wetlands and stream hydrology.
- Prepare and implement a comprehensive beach and inlet management plan that addresses ecologically based guidelines, socio-economic concerns, and fish habitat.
- Protect Submerged Aquatic Vegetation (SAV), shell bottom, and hard bottom areas from fishing gear effects through improved enforcement, establishment of protective buffers around habitats, and further restriction of mechanical shellfish harvesting.
- Protect fish habitat by revising estuarine and public trust shoreline stabilization rules using best available information, considering estuarine erosion rates, and the development and promotion of incentives for use of alternatives to vertical shoreline stabilization measures.
- Protect and enhance habitat for anadromous fishes by:
 - Incorporating the water quality and quantity needs of fish in surface water use planning and rule making, and

- o Eliminating obstructions to fish movements, such as dams, locks, and road fills.

GOAL 4. ENHANCE AND PROTECT WATER QUALITY

Point sources

- Reduce point source pollution from wastewater by:
 - o Increasing inspections of wastewater treatment facilities, collection infrastructure, and land disposal sites, and
 - o Providing incentives for upgrading all types of wastewater treatment systems.
- Adopt or modify rules or statutes to prohibit ocean wastewater discharges.
- Prohibit new or expanded stormwater outfalls to coastal beaches and to coastal shellfishing waters (EMC surface water classifications SA and SB) except during times of emergency (as defined by the Division of Water Quality's Stormwater Flooding Relief Discharge Policy) when public safety and health are threatened, and continue to phase-out existing outfalls by implementing alternative stormwater management strategies.

Non-point sources

- Enhance coordination with, and financial/technical support for, local government actions to better manage stormwater and wastewater.
- Improve land-based strategies throughout the river basins to reduce non-point pollution and minimize cumulative losses to wetlands and streams through voluntary actions, assistance, and incentives, including:
 - o Improved methods to reduce sediment pollution from construction sites, agriculture, and forestry,
 - o Increased on-site infiltration of stormwater,
 - o Documentation and monitoring of small but cumulative impacts to wetlands and streams from approved, un-mitigated activities,
 - o Incentives for low-impact development,
 - o Increased inspections of onsite wastewater treatment facilities,
 - o Increased water re-use and recycling.
- Improve land-based strategies throughout the river basins to reduce non-point pollution and minimize cumulative losses to wetlands and streams through rule making, including:
 - o Increased use of effective vegetated buffers,
 - o Reduction of impervious surfaces where
 - o feasible and reduction of the level of impervious surface allowable in the absence of engineered stormwater controls,
 - o Expansion of CAMA Areas of Environmental Concern (AECs) upstream and landward,
 - o Consideration of erosion rates as an additional factor in the siting of structures along estuarine and public trust shorelines.
- Develop and implement a comprehensive coastal marina and dock management plan and policy for the protection of shellfish harvest waters and fish habitat.
- Reduce non-point source pollution from large-scale animal operations by the following actions:
 - o Support early implementation of environmentally superior alternatives to the current lagoon and spray field systems as identified under the Smithfield Agreement and continue the moratorium on new/expanded swine operations until alternative waste treatment technology is implemented,
 - o Seek additional funding to phase-out large-scale animal operations in sensitive areas and relocate operations from sensitive areas,
 - o Use improved siting criteria to protect fish habitat.

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