

Coastal Habitat Protection Plan 2026 Amendment

Executive summary

Introduction

The state of North Carolina contains the largest estuarine system of any coastal state on the eastern seaboard, comprised of over 2.9 million acres of estuarine and coastal waters and 12,000 miles of estuarine shoreline, containing diverse habitats that are vital for sustaining the state's economically and ecologically important fisheries and resilient coastal communities. However, these habitats and the species they support are increasingly facing degradation and loss from a multitude of ongoing and cumulative anthropogenic impacts. The Coastal Habitat Protection Plan (CHPP) originates in the Fisheries Reform Act of 1997 (FRA; G.S. 143B-279.8), which requires the Marine Fisheries Commission, Coastal Resources Commission, and Environmental Management Commission to adopt and implement the plan through coordinated management. The CHPP serves as plan to 1) describe and classify biological systems in the habitats, 2) evaluate the function, value to fisheries, status, and trends of habitats, 3) identify existing and potential threats to the habitats and the impact on coastal fishing, and 4) recommend actions to protect and restore habitats.

The CHPP is developed and implemented by NCDEQ staff with expertise in marine fisheries, coastal development, and water quality issues. Updated every five years, previous CHPPs were released in 2005, 2010, 2016, and 2021. The 2021 CHPP served as an amendment to the 2016 CHPP (sometimes referred to as the "source document"), and this CHPP also serves as an amendment to the 2016 CHPP. Increasing water quality degradation, habitat loss, and climate change continued to build pressure on coastal habitats and the fisheries that depend on them. Accordingly, this CHPP aims to build upon recommendations from the 2021 CHPP to address salt marsh loss and resilience, submerged aquatic vegetation (SAV) habitat loss and restoration, strategic habitat area validation, and ecosystem-based management for coastal habitats.

The status and trends of North Carolina's coastal ecosystems: ecosystem indicator metrics and a statewide coastal ecosystem report card

An understanding of the status of NC's coastal habitats is needed to assess and address the drivers of long-term habitat change and the cascading effects on the fish, shellfish, and crustaceans dependent on them. Since acquiring substantial resources remains a barrier to establishing comprehensive long-term monitoring for a suite of indicators for each

habitat, DEQ must explore alternative approaches such as an ecosystem level evaluation. This chapter identifies ecosystem report cards as a stakeholder driven assessment and communication tool to evaluate the ecological, social, and/or economic aspects of North Carolina's coastal ecosystems. DEQ will co-design a framework for the report card with a stakeholder workgroup, and scientists and managers will select metrics to best reflect the ecosystems and distill trends into easy-to-understand grades (A, B, C, D, F). The completed ecosystem report card will provide a simple, accessible way for the public and decision makers to understand the current ecosystem status and how it has changed over time.

Strategic Habitat Area validation and implementation plan development

Through previous CHPPs, DMF used a conservation planning tool that incorporated spatial analysis and subject matter expert input to identify a network of high-quality habitat areas in coastal watersheds, referred to as Strategic Habitat Areas (SHAs). SHA nominations for the four CHPP regions were completed in 2017, and field sampling was conducted in two regions (Regions 3 and 4) to verify that the habitat condition and biological productivity of nominated areas were high. Results from the field survey validate that nominated areas support a higher abundance of diverse fish populations. In combination with findings that Strategic Habitat Areas have a more diverse estuarine landscape, a higher area of structured habitats, and less alteration than areas outside of SHAs, the results of this validation study further support the designation of the nominated Strategic Habitat Areas. These results will be combined with additional analysis of DMF independent sampling data in a future issue paper that presents validation of Strategic Habitat Areas statewide and proposes designation options to the Marine Fisheries Commission. Strategic Habitat Area management options will then be developed through stakeholder engagement and collaboration with state, federal, and private partners and presented in another issue paper to rulemaking commissions and external partners.

Thin Layer Placement

North Carolina has approximately 235,000 acres of estuarine wetlands in its coastal waters, which provide essential nursery habitat for fish species, foraging and nesting sites for shorebirds and small mammals, shoreline stabilization and erosion control, and enhance water quality through nutrient and pollutant retention. However, those estuarine wetlands are increasingly threatened by sea level rise, saltwater intrusion, and erosion, and the 2021 CHPP called for expanding collaborations between state, federal, and private partners to protect and restore impacted wetlands through nature-based solutions. This CHPP builds on those 2021 CHPP recommendations by outlining the benefits, resource impacts, and policy and permitting concerns with thin-layer placement, which is a restoration, enhancement, and resilience strategy broadly defined as the application of

sediments (primarily dredged material) to coastal wetlands in order to increase elevation and surface area, promote sediment accretion, and restore impaired habitat. During development of this CHPP, DEQ staff hosted a workshop to discuss thin layer placement and to share successes, challenges, concerns, and lessons learned associated with the ecological impacts of placing sediment on deteriorating wetlands, and feedback from staff attending the workshop was incorporated into this chapter of the CHPP. The information and guidance summarized in this chapter will serve as an additional resource for regulatory and resource agency staff, commission members, restoration practitioners, and researchers as additional thin layer placement projects are proposed in North Carolina.

Submerged aquatic vegetation protection and restoration

North Carolina's coastal waters have historically supported nearly 200,000 acres of submerged aquatic vegetation (SAV), which provides critical spawning, foraging, and nursery habitat for most of North Carolina's fisheries, and provides additional ecosystem services including carbon sequestration, nutrient filtering, and sediment stabilization. However, degraded water clarity, sea level rise, and rising temperatures represent growing threats to SAV across the state, with rates of habitat loss currently exceeding 1% per year, plus increasing conversion of continuous meadows to patchy SAV beds. The 2021 CHPP set a statewide goal of ensuring a SAV extent of 191,155 acres and recommended new and updated water quality standards to ensure adequate light penetration to allow SAV to regrow in areas where poor water clarity has led to its loss. To ensure progress on slowing the rate of SAV loss across the coast, this CHPP highlights the need to continue to advance a water clarity standard to protect SAV, outlines an approach for a habitat-based rulemaking framework for the MFC to implement additional SAV protections, and summarizes the regulatory framework and ecological and practical concerns for future seed- and transplant-based SAV restoration projects.