

DRAFT WETLAND RESTORATION AND PROTECTION ISSUE PAPER

1.7. Recommended Actions

1.7.1. Mapping and Monitoring

1. By 2023, obtain state matching funds for NOAA C-CAP program to map NC's coastal plain at 1m resolution.
2. By 2024, pursue use of emerging technologies such as a data fusion or deep learning neural networks, that rely on a combination of satellite imagery, drone imagery, and field verification into coastal wetland mapping and change analyses. (DEQ CHPP 2020 Wetland Workshop)
3. By 2022, DEQ will form a multi-partner workgroup to develop coastal wetland mapping and monitoring plan, including a minimum set of standardized metrics and discuss establishing a centralized location to store relevant reports. (DEQ CHPP 2020 Wetland Workshop); and by 2026, DEQ, will determine status and trends of coastal wetland acreage, condition, and function based on the additional mapping and monitoring data obtained (DEQ WPP; DEQ CHPP 2020 Wetland Workshop).
4. By 2023, DEQ should seek additional permanent funding, to expand coastal wetland monitoring conducted by DWR staff or other agencies as part of the NC DEQ Wetland Protection Plan.
5. By 2022, DEQ should enhance outreach, particularly to landowners and decision makers, on the need to have accurate and updated wetland maps due to their high value for fisheries, ecosystem services, and coastal resilience. (DEQ CHPP 2020 Wetland Workshop; NC RARP)

1.7.2. Conservation

1. By 2023, DEQ will seek additional funding for two dedicated compliance positions for DWR to be housed in the DEQ's Wilmington and Washington Regional Offices, to prevent unauthorized impacts to wetlands. (Compliance Issue Paper)
2. By 2022, DEQ should discuss with NC legislators the need for increased appropriated funds for the three state conservation trust funds to increase conservation of critical wetland properties.
3. By 2026, state, federal, and local government and NGOs will facilitate salt marsh migration through conservation of migration corridors. (NC RARP)
4. By 2026, increase conservation and restoration of forested wetlands within floodplains through economic incentives, acquisition, easements, and strategic floodplain buyouts to conserve forested wetlands, enhance ecosystem services, and improve coastal community resilience. (NC RARP)
5. By 2026, EMC and CRC should incorporate climate risk and expected hydrologic and shoreline changes into wetland related policies, such as buffers and wetland impact permitting. (NC RARP)
6. By 2022, DWR will seek EMC approval of permanent rules to replace temporary rules 15A NCAC 2H .1401-.1405, Discharges to Federally Non-jurisdictional Wetlands.

1.7.3. Restoration and Living Shorelines

Restoration

1. By 2022, DEQ, working with NC Department of Agriculture and Consumer Services (NCDACS) and other agencies, should initiate a collaborative effort to pursue additional funding from the Farm Bill and other programs for conservation, wetland restoration, conservation easements, and large-scale hydrologic restoration projects. (NCCF NBBS)

2. By 2026, DEQ should partner with state and federal agencies and NGOs to increase wetland restoration and conservation along coastal rivers and streams to increase ecosystem services and coastal resiliency, taking climate change and SLR into consideration. (NC RARP)
3. By 2023, coastal state and local governments will establish and implement policies that promote and incentivize the use of nature-based strategies for private and public landowners, when rebuilding damaged infrastructure and managing stormwater runoff, to increase coastal resilience. Nature-based stormwater strategies should be designed to achieve “runoff volume matching” as specified in the state’s stormwater design manual. (NC RARP, NCCF NBSS, APNEP CCMP)
4. By 2025, DEMLR and other divisions should increase education, outreach, and training to consultants, local government, and landowners for nature-based stormwater and watershed management strategies. (NCCF NBSS)

Living Shorelines

1. By 2022, the NC Living Shoreline Steering Committee will devise and implement a communication and education strategy, and by 2023, publicize the benefits of living shorelines, targeting property owners and contractors. (2021 Draft Oyster Blueprint)
2. By 2024, DEQ should seek monetary incentives (cost share, funding, tax credits, mitigation credits, etc.) to increase the development of living shorelines in place of bulkheads where appropriate. (2021 Draft NC Oyster Blueprint).
3. By 2022, DMF should develop a mechanism to prevent harvesting from protect living shorelines constructed with or supporting oysters. (2021 Draft Oyster Blueprint)
4. Expand current science-based tools for siting and design of living shorelines in all coastal counties. (2021 Draft Oyster Blueprint)
5. Investigate if living shoreline projects can be built to qualify for salt marsh or nutrient mitigation credits (2021 Draft NC Oyster Blueprint).

1.7.4. Research Needs

1. By 2023, DEQ should partner with other organizations to facilitate coastwide completion or enhancement of coastal vulnerability assessment tools. The purpose of the tools is to identify priority conservation areas for future marsh migration, assist with planning wetland enhancement/restoration projects, and increase use of nature-based stormwater projects that incorporate wetlands. (NC RARP)
2. Determine optimal parameters for thin layer sediment deposition to ensure wetland success. (DEQ Wetland Workshop 2020)
3. Assess trends in salt marsh elevation, inundation, and distribution to prioritize areas for wetland restoration. (DEQ Wetland Workshop 2020)
4. Determine the impact of degrading plastics and marine debris on wetlands, sediment, and the benthos.
5. Research the nutrient (nitrogen, phosphorus) reduction benefits provided by living shorelines and use that information to provide incentives for living shoreline projects (2021 Draft NC Oyster Blueprint).