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## MEMORANDUM

TO: Coastal Resources Commission  
Environmental Management Commission  
Marine Fisheries Commission  
Coastal Habitat Protection Plan Steering Committee

FROM: Jimmy Johnson  
Albemarle-Pamlico National Estuary Partnership  
Charlie Deaton  
Division of Marine Fisheries

DATE: September 26, 2024

SUBJECT: Coastal Habitat Protection Plan Steering Committee Meeting

The Coastal Habitat Protection Plan (CHPP) Steering Committee met at the Washington, NC DEQ Regional Office and virtually at 10:00 a.m. on Monday, September 23, 2024. The following attended either in-person or via Teams:

Commissioners: Bob Emory, Larry Baldwin, Kevin Tweedy, Yvonne Bailey, Willie Closs, Doug Rader  
DMF Staff: Zach Harrison, Charlie Deaton, Kim Harding, Jesse Bisette, Alan Bianchi, Catherine Blum, Daniel Zapf  
APNEP Staff: Jimmy Johnson, Bill Crowell  
DCM Staff: Daniel Govoni  
DEMLR Staff: Samir Dumpor  
DWR Staff: Karen Higgins, Tammy Hill, David May,  
Public: Steve Keen (EMC), Cat Bowler (Audubon), Jacob Boyd and Claire Rapp (NC Coastal Federation), Lisa Rider, Riley Lewis, and Stacey Dominguez (Coastal Carolina Riverwatch), Rachel Gittman (ECU), Anne Coan (NC Farm Bureau Federation), Madeline Payne (UNC-CH), Kathy Herring (NCDOT/RK&K), Barrett Jenkins (Davey/Restoration Systems)

### **Meeting Minutes**

Doug Rader called the meeting to order at 10:00am. The agenda for the September 23, 2024, meeting and the minutes from the January 12, 2024 meeting were approved by



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consensus. It was noted that Doug Rader's name was misspelled in the minutes, and that correction was made.

*NC Salt Marsh Action Plan – Presentation by Jacob Boyd*

Jacob Boyd with the NC Coastal Federation's (NCCF) Salt Marsh Program gave a presentation detailing the NCCF's Salt Marsh Program, the NC Salt Marsh Action Plan (SMAP) that they had developed, implementation of the SMAP, and the EPA's Climate Pollution Reduction Grant (CPRG) award that the NCCF received \$30M from. NCCF programs have been recently reorganized into different focuses (oyster, salt marsh, water quality, marine debris), and Boyd focused on the salt marsh program, which includes four main priorities: the SMAP, coordination with the South Atlantic Salt Marsh Initiative (SASMI), living shorelines, and blue carbon. SASMI led to the NC SMAP. SASMI launched in 2021 as an effort to increase regional coordination across the southeast to identify threats to salt marshes and provide for conservation and restoration of the approximately 1 million acres of salt marshes. In developing the NC SMAP, which summarizes the threats to salt marshes across North Carolina and provides actions to help address those threats, NCCF staff prioritized potential actions based on the modelled net loss or gain of salt marshes through 2050, categorizing those actions as restoration/protection and marsh migration facilitation.

The NC SMAP has 3 strategies, each of which contains multiple objectives, and each objective is associated with multiple actions to drive implementation:

- Advance salt marsh conservation and restoration
  - Protect salt marshes to minimize impacts from landward activities
  - Promote restoration, protection, and conservation
  - Facilitate use of living shorelines (e.g. cost-share program)
  - Advance research (e.g. USACE BUDM plan, new restoration techniques)
- Facilitate salt marsh migration
  - Conserve migration corridors (e.g. use easements)
  - Include marsh migration as a priority for planning investments in infrastructure and working lands (e.g. local government planning, adjusting grant scoring criteria)
  - Advance salt marsh migration research
- Implement cross-cutting approaches
  - Research, monitoring, and funding
  - Policy and management adjustment
  - Communication, education, and engagement

Boyd's presentation paused for questions from the CHPP Steering Committee commissioners.



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Commissioner Bob Emory asked about thin-layer placement (TLP): What is the potential in NC, and where would it occur – near dredging?

Boyd responded that it's most likely to occur near dredging, as that's the most cost-effective situation, which is a big consideration of the Corps. For instance, the Wilmington Harbor deepening project may serve as a sediment source for TLP. TLP is a useful tool, but not the be-all, end-all because of the limited areas that get dredged, so we'll need to use other tools to address these issues as well.

Daniel Govoni (DCM) added that current DCM/CRC rules don't allow for TLP because it violates the dredge and fill rules, but DCM is starting to investigate some pilot projects, which may lead to rulemaking to allow TLP sometime in the future.

Larry Baldwin asked for more information about sediment type matching for TLP – is it necessary to match the dredged sediments to the marsh sediments, or is TLP still possible with sediments that don't perfectly match?

Boyd responded that sediment is an important consideration, and this is an active area of research, weighing both the sediment compatibility and long-term project viability with the costs of getting exactly the right sediment.

Commissioner Willie Closs asked if NC would have a net loss or net gain statewide through 2050 based on the projections shown, and what the overall goal is in terms of net gains.

Boyd responded that there will be a net gain if migration is allowed to occur (especially on natural and working lands), but the gains and losses won't be equally distributed (losses in the southern part of the state and gains in the northern part of the state). Regarding the overall goal, Boyd responded that they developed goals on a local scale rather than statewide because maintaining a net gain for the state could neglect the southern part of the coast, and focusing just on protecting existing marshes may not be the most effective strategy in the northern part of the coast – different parts of the state have different issues to be addressed.

Boyd resumed his presentation, moving on to implementation of the SMAP. Boyd stated that collaboration is really important for implementation, and NCCF is not trying to do things alone; rather, they're trying to build on the efforts of state agencies and other nonprofits, focusing on incorporating this work into existing efforts to reduce redundancy, and finding new pathways to implement actions as appropriate. NCCF created a Salt Marsh Steering Committee and a Stakeholder Advisory Committee to help guide implementation. The SMSC is a smaller collection of ~25 experts, including academics and scientists and managers from state and federal government, which also serves as the state implementation team for SASMI and meets monthly. The SAC is a broader group (>100 representatives, including state and local decision makers) that serves to give broader input from a wider array of stakeholders and provide feedback for the SMSC. The SAC meets approximately yearly.



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As part of the EPA's Climate Pollution Reduction Grant Program (CPRG), North Carolina developed a Priority Climate Action Plan (PCAP) that aims to reduce greenhouse gas (GHG) emissions through avoided emissions and enhanced carbon sequestration – including natural and working lands sector, which includes salt marshes and other coastal habitats. The EPA's CPRG PCAP implementation grant program awarded the Atlantic Conservation Coalition (NC, SC, VA, MD) \$421M for natural and working lands-based GHG reductions, and the NCCF received \$30M of that \$421M to restore and protect ~600 acres of high-carbon coastal habitats. Of that \$30M, \$2M is set aside for research, but most of the rest of the funding is bookmarked for on-the-ground work.

Cat Bowler (Audubon) asked if those 600 acres had been identified, to which Boyd responded that they have not been, and that he would describe the process they were planning to use to identify them. NCCF and Natrx (a private company) are conducting a shoreline change analysis, using high-resolution satellite imagery to find the highest rates of salt marsh erosion rates, which will then be combined with estimates of carbon stored in those marshes, and high-erosion, high-carbon marshes will be prioritized for conservation and restoration. The full analysis will not be conducted statewide, but the goal of the first tier (erosion rates) should be conducted statewide (which is valuable data for all stakeholders involved), and the more intensive analyses will focus on smaller regions. Additional research will focus on carbon pathways (i.e. carbon storage in salt marsh vs. lateral fluxes of lost carbon – how much gets exported to the ocean, and what the fate of that carbon becomes). Boyd added that NCCF also received funding from NFWF to work with 5 communities working through DCM's Resilient Coastal Communities Program (RCCP) to implement nature-based solutions for salt marshes and advance implementation of their local resilience plans, which will be highly complementary to the work described here.

*Currituck Sound Marsh Conservation Plan presentation from Cat Bowler, Audubon*

Next, Cat Bowler of Audubon presented on the Currituck Sound Marsh Conservation Plan (CSMCP), which was completed in December 2021. The plan was developed by the Currituck Sound Coalition, a group of about 15 local partners focused on ecosystem resilience in Currituck Sound region and working on nature-based solutions, with an early focus on marsh conservation planning.

The CSMCP focuses on marshes in Currituck Sound, but the geographic extent is the watershed that includes Back Bay and the North River (Camden/Currituck County). The plan identified well-researched challenges, including sea level rise (SLR), erosion, invasive species, and lack of sediment to marsh surfaces. Impacts that require further study were also identified, including altered hydrology, declining water quality, saltwater intrusion, loss of biodiversity, and storms. Currituck Sound is oligohaline, and primarily a freshwater system, but it is getting more saline with SLR/saltwater intrusion (though on a historical timescale, it was more connected to the ocean with other inlets). Currituck Sound is like a



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large, shallow bathtub that can have high wave action, and tides are wind-driven and not as predictable as other parts of the state. The CSMCP placed an emphasis on conservation strategies, including conserving marsh migration corridors, restoring degraded marshes, research and monitoring, strengthening community use and appreciation of natural areas, and enhancing marsh habitat connectivity and function.

The coalition created a decision-support tool (incorporating spatial data on marsh health and vulnerability, including shoreline change and marsh migration space, weighting the inputs based on feedback from local partners and national Audubon's science team) that identified the most vulnerable marshes to prioritize for restoration actions. The most recent version of the tool allowed for weighing the availability of migration space in different ways (e.g. national Audubon's priorities, or Currituck Sound Coalition's planning scenarios). Several coalition partners have been working on different actions to implement the plan, and much of the early work has focused on filling in data and knowledge gaps (e.g. sub-aqueous soil mapping). Looking forward, bi-annual coalition meetings will continue to implement conservation plan projects and identify other priorities.

Larry Baldwin asked if there are any specific targets that Audubon is focusing on for the near future?

Bowler responded that Audubon is looking at a few pilot projects, including new shoreline stabilization projects and thin-layer placement project. The Town of Duck has recently completed a project that raised a regularly flooded section of Hwy 12, added a living shoreline, and included a bike lane (using FEMA BRIC funding).

Doug Rader commented that thinking about how nonlinear changes like salinization will affect things is a big question, and something we'll want to address going forward.

#### *2021 CHPP Implementation Update, Charlie Deaton, NC DMF*

Charlie Deaton provided an update on the implementation of actions included in the 2021 CHPP. This presentation focused on the highlights of ongoing and completed actions from the past year.

#### *4.2. DEQ will commit to protecting and restoring SAV to reach an interim goal of 191,000 acres coastwide.*

- DMF and the MFC have been working toward more comprehensive SAV protections. DMF staff presented an overview to the MFC at their August meeting, and will provide updates over the next 2-3 MFC meetings while assessing the MFC's options for more holistic protection of SAV from physical disturbances

#### *4.5. DEQ will develop and implement a full-scale assessment program to conduct coastwide SAV mapping and monitoring at regular intervals.*

- APNEP SAV mapping – contracted fieldwork to UNCW through 2025, assuring consistency of data and a reliable product, freeing up volunteer resources to address other SAV priorities





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- APNEP SAV Team reconvening with two meetings this fall

Actions 4.7, 4.8, and 4.9 are grouped together:

*4.7. The EMC, through the NCDP SAC recommendations, will establish a water quality standard for light penetration for low and high salinity SAV.*

*4.8. The EMC, through the NCDP SAC recommendations, will evaluate chlorophyll a standard and revise as needed to ensure protection of SAV in high and low salinity waterbodies.*

*4.9. The EMC will adopt nitrogen and phosphorus criteria if recommended by the NCDP SAC to protect and restore low salinity SAV in the Albemarle Sound region, and continue with other waters.*

- The NCDP SAC has produced a draft clarity standard and support document for the proposed standard and references. This will be taken to the CIC this fall. After CIC review, the RIA and rulemaking package will be developed to bring before the EMC in the first half of 2025.
- The SAC did not propose a universal chl-a standard. Instead, chl-a may be evaluated on a site-specific basis when the clarity standard is exceeded.

*5.1. DEQ will obtain state matching funds for the NOAA CCAP program to map NC's Coastal Plain at 1m resolution and additional funding to expand coastal wetland monitoring conducted by DWR and other state agencies.*

- Following the recommendations of the interagency workgroup (action 5.3), DMF, APNEP, DWR, and DEQ committed \$1.4M for 1-meter land cover mapping statewide. Contract currently in processing, and a product will be finished in 2025
- DCM has committed \$100k for salt marsh mapping and still looking for an additional \$300k for statewide high vs. low marsh mapping

*5.7. DEQ will collaboratively work to facilitate marsh migration through conservation of migration corridors.*

- DEQ staff collaborating through NC Coastal Federation's salt marsh steering committee, as was covered in Jacob Boyd's presentation
- NC received EPA Climate Pollution Reduction Grant funding to include marsh migration corridor strategies (NC Coastal Federation implementing, as discussed in Jacob Boyd's presentation)

*5.10. 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.*

- DWR internally discussing developing guidance for local governments on stormwater actions they are legally allowed to make



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*5.11. Determine optimal parameters for thin layer sediment deposition to ensure wetland success.*

- Discussions beginning through NCCF's SMSC and the USACE-Manomet beneficial use of dredged material (BUDM) workshops
- TLP permit applications beginning to come to DCM. Collaborating agencies (DMF, DWR, federal) discussing how best to evaluate TLP applications

*6.3 By 2022, DWR and DEMLR should work with the DEACS to establish a public portal on DEQ's website that provides information on compliance issues, allows the public to submit complaints, and potentially highlights a list of repeat violators.*

- DEQ launched the anonymous comment tool a couple years ago, and it has been very useful for DWR and DEMLR staff, who have received reports of SSOs and other issues that have enabled them to more effectively conduct compliance efforts. Considering this action complete.

*7.3. By 2025, DCM and DWR will work with NCORR and local governments to develop strategies for flood-proofing wastewater infrastructure; siting new and relocating existing infrastructure away from sensitive estuarine waters and floodplains; upgrading sewer infrastructure; and develop priorities for public and natural infrastructure improvements*

- DCM's RCCP awarded Aurora \$1M to implement wetland restoration at their WWTP – removing sludge, cleaning filtration, elevating berms. Many communities are now in the pipeline (phases 1+2) to be eligible for similar implementation funding.

*7.4 & 7.5. By 2023, DWR will investigate modification of EMC rules to require deemed permitted collection systems to be cleaned annually on a systematic basis (e.g. 3 to 5 years), and to have a certified operator as an Operator in Responsible Charge (ORC)*

- DWR evaluated potential modifications but decided not to pursue rule changes with the EMC and will instead focus on using the tools currently available to them and addressing issues on a case-by-case basis.

*8.1. By 2022, convene interagency workgroups of DEQ agency staff, academics, and subject matter experts by coastal habitat type to define indicator metrics and identify data gaps and monitoring needs to determine long-term status and trends of coastal habitats.*

- APNEP's SAV Team will be meeting in October; interagency wetlands mapping team will be meeting again soon; oyster mapping group continues through NERRS and NOAA

*8.4. By 2022, DWR will update standardized procedures for algal bloom investigations and evaluate the potential to cross-train other DEQ divisions to perform estuarine and marine investigations.*



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- DWR's algal bloom coordinator has been promoting the algal bloom dashboard to other divisions and external groups and assisting with outreach to citizen science groups on the Albemarle who are interested in assisting with investigations.

#### *CHPP update for 2026, Jimmy Johnson, APNEP*

Jimmy Johnson discussed the process for the 2026 CHPP update. The CHPP Steering Committee (CHPP SC) meetings have been twice a year for the past couple years, but with the revisions to the CHPP coming, the CHPP SC will be meeting more frequently: approximately quarterly in 2025 and 2026. The CHPP SC and CHPP Team will need to decide on an amendment or full rewrite of the CHPP. Technically, we could just review and decide an update is not needed to meet the statutory requirements of the Fisheries Reform Act, but we anticipate at least some sort of an update, and that decision will need to be made in the first or second quarter of 2025. It will likely be the last commission meetings of 2026 that the CHPP will be presented, with a goal of approval by December of 2026. Willie Closs asked: if commissioners are not being asked to take immediate action here, what can we do to help best?

Jimmy Johnson responded that the most important role here is to bring this information back to the MFC and work on approving actions there. Each FMP will also have a habitat section, and the CHPP SC members' inputs will be valuable on those.

Doug Rader added that commissioners Rader and Closs are the liaisons between the MFC and the other commissions (EMC, CRC), and are there to encourage cooperation and collaboration on actions that cross jurisdictions of commissions. The next two years are a critical time to be thinking about how to address habitat protection issues across the three commissions' responsibilities.

Jimmy Johnson added that part of this review will include an analysis of what 2021 CHPP actions aren't going to be finished and why they didn't happen (too ambitious, lack of funding, new information available, etc).

Larry Baldwin added that the Fisheries Reform Act was a push to get the commissions to work together, and this CHPP SC is very useful for building consensus on the respective commissions for getting actions implemented to be more effective at protecting habitats. Baldwin continued that we've made good progress on goals, and this is a great starting point to look at what actions we have and haven't been able to successfully implement and adjust appropriately.

Doug Rader reminded the CHPP SC that other commissions and bodies are also working on these issues, so we aren't working in a vacuum on these issues.

Doug Rader also shared the news that Jimmy Johnson will be retiring at the end of the year and offered his congratulations and gratefulness on important progress made thanks to Jimmy Johnson's work in habitat protection and fisheries management.





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*Doug Rader opened the floor to public comment*

Rachel Gittman (ECU) expressed her thanks to Jimmy Johnson on his service and expressed her interest in ensuring the success of the 2026 CHPP update. No further public comments were made.

*Next meeting:*

Staff will send an email out with a scheduling poll to commissioners, with a target of January or early February for the next CHPP SC meeting. The CHPP Team will meet approximately one month before the CHPP SC meeting.

*Other commissioner comments*

Willie Closs mentioned that a large portion of the challenge seems to be natural forces that we're trying to overcome. Closs asked if we have an understanding of what the proportion of the challenges are natural (or from global climate change), and what proportion is directly human-caused (issues that we have more direct control over).

Bob Emory responded that we've focused on select issues in the CHPP, especially those that are more directly human-caused, such as water quality improvements for SAV, which is highly human-caused. The CHPP SC and CHPP Team staff have tried to identify and implement solutions to these issues by focusing on the items within our direct influence, and the work done by this CHPP SC is important for working on those issues.

Doug Rader added that addressing multiple threats through multiple rulemaking commissions is what we are doing here in the CHPP SC, and that's what the CHPP is here for.

*Chair Rader adjourned the meeting at 12:00 noon.*