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NORTH CAROLINA
Environmental Quality

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
Anne Deaton
Division of Marine Fisheries

DATE: August 3, 2020

SUBJECT: Coastal Habitat Protection Plan Steering Committee Meeting

The Coastal Habitat Protection Plan Steering Committee met via webinar at 9:00 a.m. Thursday, July 30, 2020. The following attended:

Commissioners: Martin Posey, Pete Kornegay, Bob Emory, Larry Baldwin, David Anderson, Yvonne Bailey

DMF Staff: Dan Zapf, Katy West, Anne Deaton, Casey Knight, Alan Bianchi, Corrin Flora, Kimberly Harding, Jimmy Harrison, Jacob Boyd, Jason Rock, Shannon Jenkins
APNEP Staff: Bill Crowell, Jimmy Johnson, Trish Murphey, Tim Ellis
DCM Staff: Braxton Davis, Curt Weychert, Mike Lopazanski, Daniel Govoni
DWR Staff: Adriene Weaver, David May, Forest Shepard, Chris Pullinger
DEMLR Staff: Samir Dumpor
NCDA&CS: Eric Pare (S&W), Alan Coates (Forest Service)
Public: Bill Ross (Brooks-Pierce), Paul Cough (APNEP), Kelly Garvy (The Pew Charitable Trust) Leda Cunningham (The Pew Charitable Trust), Stacy Trackenberg (ECU), Todd Miller (NCCF)

WELCOME, INTRODUCTIONS AND APPROVE AGENDA

Jimmy Johnson, serving as chair, called the meeting to order. He welcomed everyone on the webinar and asked them to provide a name, who they represent and their favorite beach, in the chat box, in order to get a list of attendees. He called the roll for commissioner attendance. All commissioners were present.

Motion by Bob Emory to approve the agenda. Seconded by Martin Posey. Motion carries unanimously.

APPROVE MINUTES FROM MAY 11, 2020 MEETING

Motion by Martin Posey to approve the minutes of the May 11, 2020 meeting. Second by Pete Kornegay. Motion carries unanimously.

REVIEW OF ISSUE PAPERS

Jimmy Johnson (APNEP) reviewed the timeline of the 2021 CHPP development along with drafting and reviewing issue papers. Today we will review two issue papers along with recommendations for approval by the CHPP Steering Committee. There will be three more issue papers for review in October by the committee. Approval for the draft 2021 CHPP to go out for public comment by the three commission will likely be in November. The timeline is tight, but the 2021 CHPP should be finalized by the spring/summer of 2021.

SAV and Water Quality Protection and Restoration with Focus on Water Quality Improvements

Casey Knight (DMF) reviewed the issue paper SAV and Water Quality Protection and Restoration with a Focus on Water Quality to the committee. Protection and restoration of submerged aquatic vegetation (SAV) habitat is critical for healthy fisheries in NC while also providing additional valuable ecosystem services and benefits that enhance coastal resiliency for aquatic life and coastal communities. These services include primary and secondary fisheries production, habitat for fish, wildlife, and waterfowl, sediment and shoreline stabilization, wave energy attenuation, water purification, and carbon sequestration. There are two distinct groups of SAV ecosystems in NC distributed according to the estuarine salinity. One group occurs in moderate to high (<10 ppt) salinity estuarine waters of the bays, sounds, and tidal creeks, referred to as high salinity SAV or seagrasses. The other group thrives in fresh to low salinity riverine waters (≥10 ppt), referred to as low salinity SAV or freshwater grasses. Collectively, they are referred to as SAV. These groups are also distinguished by different species composition and living requirements, but the primary factors controlling SAV distribution are water depth, sediment composition, wave energy, and the penetration of light through the water column. North Carolina is unique from other coastal SAV ecosystems on the Atlantic seaboard because of the overlapping distribution of temperate and tropical seagrasses in high salinity waters. Eelgrass (*Zostera marina*) is a temperate species at the southern limit of its western Atlantic range in NC. In contrast, shoal grass (*Halodule wrightii*) is a tropical species that reaches its northernmost extent in NC. Widgeon grass (*Ruppia maritima*) has a wide salinity tolerance, but grows best in moderate salinity areas.

Currently, NC is steward to one of the most productive and biodiverse SAV resources on the Atlantic seaboard, including the largest in-tact high salinity seagrass meadows in the south Atlantic. Over the last 40+ years various mapping projects have been conducted by several universities and state and federal agencies. These individual mapping events have been compiled and overlaid to make up the historically known extent of approximately 191,155 acres of SAV in NC. This is currently the best known estimate of where SAV has persisted in the past, may currently persist, and will hopefully persist in the future. Therefore, the recommended coastwide

interim SAV protection and restoration goal is approximately 191,155 acres. The NC coast and the known historic SAV extent is further divided into nine SAV regions to best represent waterbodies and regional variability. These SAV waterbody regions will be beneficial to setting smart and targeted recommendations on how to obtain these acreage goals. Due to the varying methodologies, extents, resolutions, seasonality, and timeframes, etc. of the mapping events compiled to make the known historic extent of SAV in NC, the regions will allow for goals to be set coastwide and by region allowing for targeted recommended actions. The acreage goals will also be able to be informed and refined by region based on the most current and best resolution mapping events as older mapping data is re-evaluated and new mapping data becomes available. To work towards achieving the interim acreage SAV goal for protection and restoration several recommended actions were presented.

Larry Baldwin asked about the value of chlorophyll *a* as a metric and said there is debate on whether it's a good metric. Knight explained that here, chlorophyll *a* is an interim target that will be used to determine nitrogen load in the future.

Martín Posey asked about sedimentation and how it would be incorporated into the models. Knight explained that sediment does have an impact. Subsequent management measures that reduce nutrient loading from runoff will also reduce sediment loading. Staff said they would follow up on that. Anne Deaton (DMF) added that both Chesapeake Bay and Tampa Bay had tremendous success in controlling nutrients as primary strategy.

Bob Emory questioned if you could see declines of SAV in waterbodies that had a current chlorophyll *a* TMDL. Knight explained that at this point, we cannot due to existing mapping information in those areas. That shows the need for having an more robust SAV monitoring program that could demonstrate that connection.

Baldwin asked about the SAV acreage goal and commented that SAV distribution has a lot of natural variability and if the SAV mosaic was a blended inventory of multiple years and how to account for SAV natural variability. Knight explained that the mosaic is an inventory of several mappings that have occurred over time. It indicates where SAV has occurred at some point in time and could again if conditions are suitable. The mapping dates are in the issue paper and current acreage goal is an interim goal based on this mosaic. If water quality conditions are improved, SAV will be able to recover faster (more resilient) following adverse weather conditions.

Knight reviewed the recommendations and explained that there are some missing dates and that some wording may be changed slightly in order to make them SMART but the intent of the recommendations will not change.

Posey asked about recommendation #2 and if we are setting a deep edge goal or is it something we can determine. Trish Murphey (APNEP) explained that the deep edge depths were already determined based on previous work and is 1.5 meters for the low salinity SAVs and 1.7 meters for the high salinity SAVs.

Emory asked about the mechanisms of adopting targets, does it need to go through the EMC? Who adopts the SAV targets? He suggested that the 22% light to a depth of 1.7 meters and 13% to 1.5 meters be included in the recommendations.

Baldwin expressed some concerns about the recommendations and the need to be more concise. He felt they were too wordy and would lose people. He suggested that rule making should be considered and also think about enforcement and legislative actions and that these recommendations need to be as concise and doable as possible. Knight explained that we can change the wording and structure to address his concerns.

Baldwin also suggested mitigation as a funding mechanism for SAV restoration. It has been successful for wetlands and streams and a lot of resource agencies support mitigation. Baldwin also discussed boat prop dredging/sedimentation and the amount of boats that are out on the water. He suggested the idea of establishing boat carrying capacity for water bodies that have public boat ramps.

Motion by Martin Posey to accept the recommended actions with the understanding that potential changes to wording will be made in order to make them more clear and concise, without any change to their intent. Seconded by Pete Kornegay. Motion carries unanimously.

Environmental Rule Compliance to Protect Habitat and Water Quality

Deaton reviewed the issue paper, Environmental Rule Compliance to Protect Habitat and Water Quality. The paper summarized NC compliance inspections and studies that have looked at compliance in NC and elsewhere. Inspections in NC support the conclusions of the studies that greater compliance is achieved when the public knows that inspections are likely to occur. Non-compliance leads to unauthorized wetland loss and water quality degradation, and with increasing habitat loss and degradation, there is a loss of ecosystem services, like flood control, filtering of pollutants, and provision of suitable juvenile fish habitat. Small thresholds of impacts to wetlands and streams are allowed, and although small, are cumulatively significant. In five years (2014-2019), the impacts within the coastal draining river basins was 1,499 acres. In the same time period there were 1.54 acres of unauthorized impacts for every 1.0 acre of authorized/permitted impacts. Having dedicated compliance inspection positions greatly increases compliance and could result in over 50% less impacts to wetlands with no new rules. Deaton noted that public comments have consistently expressed support for enforcement of existing rules and this issue has been a CHPP priority since 2005. Although new compliance positions were created in 2006, severe budget cuts have limited time availability for compliance inspections. The CHPP Steering Committee reviewed recommended actions which included seeking funding for dedicated compliance positions, additional outreach to increase the public's understanding of EMC and CRC rules and how to recognize potential violations, and establishing a public portal on DEQ's website where it is easy to find out about past violations, and to submit complaints about potential violations.

The CHPP Steering Committee discussed the recommended actions. Larry Baldwin noted that enforcement should be a last resort. Two CHPP team members with DWR and DEMLR explained that since the 2000s staff emphasizes outreach to applicants at the front end. Rather than being heavy handed when problems are found, division staff offer assistance to get into

compliance. They both noted that increased compliance with regular inspections leads to less enforcement actions being needed.

Motion by Pete Kornegay to approve all of the recommended actions in the compliance issue paper. Seconded by Martin. Motion carries unanimously.

PUBLIC COMMENT

No public comment.

BREAK

Johnson called a break and to return by 11:00am.

OTHER CHPP ISSUE PAPER UPDATES

Deaton provided information to the committee on three additional issue papers that are not yet complete but will be for the next meeting.

Reducing Inflow and Infiltration (I&I) from Wastewater Infrastructure to Improve Water Quality

Deaton presented an update on the upcoming issue paper "Reducing Inflow and Infiltration (I&I) from Wastewater Infrastructure to Improve Water Quality". She explained that I&I is the term used for a common type of wastewater infrastructure problems. Inflow is when stormwater gets into wastewater collection pipes and infiltration is when groundwater gets into the pipes. The increased volume of water entering the pipes is frequently the cause of sanitary sewer overflows. If the raw or partially treated sewage enters surface waters, it can significantly degrade waters for a period of time and result in algal blooms and fish kills. Studies have shown that infiltration is the more significant problem. This issue is widespread in the coastal counties and costly to correct. The coast is particularly vulnerable to I&I problems due to high groundwater table and higher average rainfall than other areas of NC. Climate change is expected to exasperate those factors. The draft issue paper will be presented at the next CHPP Steering Committee Meeting.

Baldwin commented that I&I is definitely a problem and that money is what is needed. In the 301 program, the US Congress appropriated money for infrastructure but did not include maintenance and operational funding. This cost was put on the states. He noted that EMC has done a great job with the Clean Water State Revolving Fund. There has been a lot of improvement in wastewater systems, stricter site selection, etc. Municipalities are seeking funds and loans to upgrade their systems.

Wetland Protection and Restoration with Focus on Nature-Based Methods

Deaton then presented an update on the issue paper "Wetland Protection and Restoration with Focus on Nature-Based Methods". She explained that the paper is in its initial drafting stage. Staff will be holding three virtual technical meetings to broaden input from researchers, other agencies, and NGOs. The first meeting will focus on mapping and monitoring, the second will focus on threats and conservation, and the third will focus on restoration and living shorelines. The information obtained will aid in drafting the issue paper.

Habitat Monitoring to Assess Status and Regulatory Effectiveness

Deaton also provided an update on the issue paper "Habitat Monitoring to Assess Status and Regulatory Effectiveness". The paper will include updated status on each habitat, and summarize monitoring needs for each to improve understanding of their condition and trends over time.

Existing monitoring will be noted, and recommendations that may be included in the SAV or wetlands issue papers will be referenced. This issue paper will provide a blueprint for monitoring the state of our coastal habitats in an efficient and feasible manner.

These papers should be finished by October. Martin asked about thoughts on restoration and Deaton explained that there are techniques to do large scale restoration, thin layer sediment dispersal, island creations/expansion, hydrological restoration. Additionally, protecting wetlands from high wave energy can reduce wetland loss due to erosion. Several examples were discussed including NCCF North River Farms and Poplar Island in Chesapeake Bay.

OUTSIDE PRESENTATIONS TO COMMITTEE

The Pew Charitable Trust: CHPP Outreach Efforts

Kelly Garvy (Pew) introduced herself and explained that she has been contracted by Pew and North Carolina Coastal Federation (NCCF) to develop outreach and education information and would like to discuss with the committee some ideas and get feedback. Leda Cunningham (Pew) provided a brief introduction and overview of Pew and that one of its priorities is coastal habitats and focusing on policy vehicles like the CHPP. She emphasized the need to build partnerships and gave the example of the March SAV/Water Quality Workshop. Garvey explained that people do not understand the connection of CHPP's role in maintaining these coastal habitat systems. Pew can provide an additional set of hands to get the word out to the public; what the CHPP is and what is its connection to other state efforts. Discussion continued on what the public needs to know and how to engage the public about the CHPP. Garvey provided three questions for discussion: 1) What do you think the public should know about the CHPP? 2) What are your thoughts and feedback on our approach? 3) What partners and stakeholders should we consider?

Baldwin commented that Pew works on a wide range of topics and that they will be beneficial in the future. He expressed that partnering with Pew would be good and would love to see Pew work on the CHPP and that this would be a great relationship.

Emory stated that the key messages are the particular topics up for action. Any general awareness paves the way to action. The public is big and who in the public to target? We want the conservation organizations to be aware of the CHPP. We want the local government to be aware of the CHPP. We need to keep the CHPP in front of the decision makers. There are some key people that should be on the radar.

Posey agreed and the public needs to know the importance of protecting habitat and why the CHPP is important to their lives. Listening to different angles and viewpoints of the public is critical to get the public knowledgeable and supportive. The opportunity is still there to have conversations with members and to educate the right people.

NC Blue Crab Fisheries Management Plan; Water Quality Recommendations

Corrin Flora (DMF) presented to the CHPP Steering Committee the MFC-approved management measures in Amendment 3 to the Blue Crab FMP issue paper on water quality concerns. Concerns due to mass mortality events in peeler operations, mortality during hypoxic concerns, effects of endocrine disruptors, and quality habitat were addressed in the issue paper. Of the seven management measures, #4 concerns the CHPP Steering Committee directly which is to task the CHPP Steering Committee to prioritize blue crab water quality impacts and juvenile

habitat impacts. These should include hypoxia and toxins, while researching specific sources of water quality degradation and their effects on blue crabs. Discussion centered around how the current issue papers that will be included in the 2021 CHPP Amendment will meet expectations of Task #4 and can include wording to link the paper to the Blue Crab FMP.

Posey asked if the water quality measures that are being proposed as well as the restoration and protection of marsh was a way to address management measure #4. Flora stated that it would. One of the first places that blue crab settle is SAV, using wetlands later in their life history or where SAV is not available. Posey suggested that the Blue Crab FMP and stock assessment be referenced in both the SAV and the wetland issue papers. Knight and Murphey said that it could be done and could potentially reference other managed fishery species where SAV is important to their life histories.

ISSUES FROM COMMISSIONERS

Johnson asked if there were any issues from the commissioners. Baldwin stated that one hot issue is WRC re-designating coastal waters, which would take areas out of CAMA jurisdiction. He expressed concern over management by different agencies and how it will become fractured. He asked about an update.

Katy West (DMF) stated that each agency has been moving forward with the rulemaking process. MFC met in August 2019 where the boundaries rules were acted on and approved with no public comment. She has not seen WRC rules yet go through the same review. However, there will be a new executive director beginning August 1.

Baldwin stated that the CRC sent a letter objecting to the rules and that when different agencies do not agree, it will end up on the Governor's desk. He requested that an update on this be an agenda item for the next meeting.

Johnson brought up the issue concerning the chairmanship of the CHPP Steering Committee. In the past, the committee was chaired by one of the commissioners and DEQ staffed the committee. Over time, he has asked for volunteers but for the last few years, no one was comfortable being the chair, so he has run the meetings. Johnson talked to Posey and asked if he would be interested in assuming the chairmanship. Posey agreed, pending committee approval/agreement.

Motion by Larry Baldwin to nominate Martin Posey as chair of the CHPP Steering Committee. Seconded by Bob Emory. Motion carries unanimously.

NEXT MEETING DATE (OCTOBER)

Johnson stated he will be looking at October for another meeting and will begin looking at date options.

ADJOURN

/plm