



NORTH CAROLINA  
*Environmental Quality*

ROY COOPER  
*Governor*

MICHAEL S. REGAN  
*Secretary*

## 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: October 21, 2019

SUBJECT: Coastal Habitat Protection Plan Steering Committee Meeting

The Coastal Habitat Protection Plan Steering Committee met 10:00 a.m. Wednesday, October 15, at the NCSU Center of Marine Science and Technology, 303 College Circle, Morehead City. The following attended:

Advisers: Martin Posey, Bob Emory, Larry Baldwin, David Anderson, Yvonne Bailey

Absent: Pete Kornegay

Commissioners: Mike Blanton, MFC

DEQ Staff: John Nicholson

DMF Staff: Katy West, Dana Gillikin, Anne Deaton, Katy Rawls, Casey Knight, Jacob Boyd,  
Jason Peters, Curt Weychert

APNEP Staff: Bill Crowell, Jimmy Johnson, Trish Murphey

DCM staff: Mike Lopazanski, Rebecca Ellin, Daniel Govoni

DWR Staff: Anthony Scarborough, Brian Wrenn

DEMLR Staff: Samir Dumpor

WRC staff: Chad Thomas

Public: Perry Wood Beasley, Larry Baldwin, Chris Elkins



## **WELCOME AND INTRODUCTIONS**

Jimmy Johnson, serving as chair, called the meeting to order. He welcomed everyone and asked for members of the committee to introduce themselves. He also asked that those attending to also introduce themselves. Johnson then gave a history and a brief update on recent meetings with Department of Environmental Quality (DEQ) division directors on Coastal Habitat Protection Plan (CHPP), the upcoming review, review process and priority issues. He noted that at a previous meeting of DEQ directors, Inflow and Infiltration (I&I) issues and coastal septic tanks were mentioned as additional priorities.

## **DEPARTMENT INPUT ON CHPP IMPLEMENTATION**

John Nicholson, DEQ Chief Deputy Secretary, provided additional comments on the recent DEQ director meetings, and that the Department strongly supports implementing habitat protection and restoration recommendations of the CHPP. He noted that the CHPP is a natural fit with Governor's Executive Order 80 (EO80) and follows the DEQ Secretary's vision for the direction, implementation and desired results the department would like regarding EO80. Nicholson discussed recent engagement with the Department of Agriculture and Forestry and that we need to foster that relationship.

## **CHPP IMPLEMENTATION UPDATE AND 2021 REVISION**

### ***Implementation Progress***

Anne Deaton presented a brief overview of the CHPP and progress on the implementation of the 2016 CHPP. She discussed the four 2016 CHPP priorities; Oyster Restoration, Metric Development, Living Shorelines, and Sedimentation.

Oyster restoration. Development of oyster sanctuaries has been very successful in the past three years. Legislative support and funding for the sanctuary program as well as matching funding from the NC Coastal Federation has resulted in 40 acres of new oyster reef habitat at Swan Island Sanctuary. Other progress that has been made regarding oyster restoration includes cultch planting, monitoring, siting tools and material acquisition. The group discussed how this work has effected overall oyster populations. Division staff commented that there are most likely some positive impacts on a local level, although it is hard to say how it is impacting the overall population.

Development of habitat metrics. Monitoring standards, drone technology and the use of side scan sonar has been incorporated into monitoring oysters. The Albemarle-Pamlico National Estuary Partnership (APNEP) Submerged Aquatic Vegetation (SAV) Partnership has developed monitoring protocols for low and high salinity SAV and have acquired coast wide imagery of the high salinity SAV this summer. Continuous funding is needed for the long-term monitoring of these habitats. The group also discussed wetland monitoring by Division of Water Resources.

Living Shorelines. This has also been a successful implementation priority of the CHPP. There are now general permits for marsh sills through the Division of Coastal Management, thus shortening the permit process for living shoreline development. Research has been completed that shows that living shorelines outperform bulkheads during large storm events, and provide multiple ecological services, including fish habitat, carbon sequestration, and coastal resilience. There has been engagement of realtors, contractors and homeowners through the coastal training



program on living shorelines and there is now a NC Living Shoreline Steering Committee to further advance this method of shoreline stabilization.

Sedimentation. There is a study on sedimentation that should be concluded next year that will provide important information regarding the source and impact of sedimentation in tidal creeks. Sedimentation continues to be a concern of small tributaries filling up with sediment, especially with the fine sediments, that smother oysters and accumulate toxins from runoff. More efforts are needed to address this issue.

### ***2021 Process and Timeline***

Deaton then presented the revised process and a rough timeline for the 2021 CHPP update. This new process will focus on priority issues and actions that will have co-benefits for coastal resiliency. SMART (specific, measurable, attainable relevant, and timely) recommended actions will be incorporated into the priority issues. Issue papers on each priority topic will be developed by holding technical workshops to compile key information, issue papers being drafted by CHPP Team members, and review by DEQ and the CHPP Steering Committee. The implementation plan will be eliminated because specific recommended actions will be in the plan itself.

### ***Priority Habitat Issues***

Deaton then presented three proposed priority issues for the upcoming 2021 CHPP. They are:

1. SAV protection and restoration with focus on water quality improvements.
2. Wetland shoreline protection and enhancement using nature based methods.
3. Habitat condition monitoring and environmental rule compliance.

The committee discussed the wetland shoreline protection issue. There was concern of only focusing on the shoreline while broader protection of wetlands is also important. Wetlands are under pressure from sea level rise, wave energy and the changing dynamics of wetland species because of these stressors. The group would like to see the priority expand to wetland protection beyond the shoreline. It was suggested that the word “shoreline” could be removed but that shoreline protection could be incorporated through proposed actions under this priority. Other discussion included that there are already rules and regulations in place now to protect wetlands. However, there are changes occurring to the quality of wetlands that need to be considered. The group also discussed the recommendation of looking into I&I and coastal septic tank issues proposed by DEQ directors. Inflow and infiltration due to leaks and breaks in wastewater pipes and infrastructure has been an ongoing problem, especially in smaller communities, and has led to large quantities of raw sewage entering coastal waters. Upgrading and maintenance of sewer systems are expensive and logistically challenging. Contamination from septic tank systems ties into nutrient and bacteria issues.

## **PUBLIC COMMENT**

**Perry Wood Beasley**, president of NC Watermen United, discussed issues of farming, water treatment plants, and how impacts from these drain to the coast. Fish will move from fresh water. Chemical treatment of crops like cotton by farmers end up in storm water runoff and can kill blue crabs. He commented on his concerns of outdated wastewater treatment plants, and herbicide spraying of invasive species of aquatic vegetation by the state. He discussed how



oyster dredgers in the Chesapeake Bay are using their dredges without the bags to drag to address sedimentation and as a way to clean up the bottom.

**Mike Blanton**, MFC member, discussed the need to talk to older fishermen who can provide a timeline of the environmental changes that have occurred in Albemarle Sound. He discussed the amount of acreage (two million) that has been drained for farmland and the 20 square miles of ditches that drain it. The coast is overwhelmed by people. He commented about the current lack of grass in the Albemarle Sound. When he was young, it was thick from one end of the river to the other. It is now a desert. We need to give the “neighborhood” back to the fish and animals. They can be resilient then. We need to reverse the cycle. We need to get the message to the legislators who need to be convinced that we need change. He offered to take members of the committee out to see the sound. Development and non-compliance has had impacts. Mr. Blanton suggested that first we need to restore the habitat then protect and enhance. Spending time on regulating fishermen has wasted time that could have been used looking at regulations for the habitat.

**Chris Elkins**, NC Coastal Conservation Association, discussed his first introduction to the CHPP plan and has seen over the years that a lot of work has been done on the CHPP but there has been no action. There has not been much done at all to improve habitat. The more habitat, the more fish for everybody. He provided a handout to the committee on oysters. The CCA recommends a phase out of oyster dredging. After Florence, there was no oyster dredging, but he had no problems getting oysters either locally or out of state. 95% of the worlds oysters come from aquaculture and NC is moving in that direction. Oysters role as habitat and water filtration is more important than food. Mr. Elkins also discussed aquaculture and oyster relay and stated the oyster relay is wild harvest, not aquaculture. With the expansion of shellfish leases, including large leases in Pamlico Sound, he is concerned there will be increased demand for relaying; CCA therefore proposes that relay no longer be allowed.

### **EO80 AND THE CHPP**

Jacob Boyd, DMF Habitat Enhancement Section Chief, gave a brief update on EO80, specifically Section 9 in reference to the the climate science assessment and the risk and resiliency plans. Through the Natural Working Lands Steering Committee, six subcommittees were formed to make recommendations on carbon sequestration and resiliency. Coastal Habitats was one of the subcommittees formed. The CHPP recommendations fit well into the set of recommendations from this subcommittee. Many of the Coastal Habitat recommendations originated from CHPP and APNEP plans.

Casey Knight, Habitat Enhancement Biologist added that the NC Climate Science Report will be released in December and inter-agency committees are currently working to identify climate related hazards and assess vulnerability and risk to be included in the NC Climate Risk Assessment. The NC Climate Science Report and the NC Climate Risk Assessment will then incorporate the actions of the subcommittees like Natural Working Land and the agency and regional workshops to create the NC Climate Resiliency Plan. This plan will then be disseminated among local government to facilitate community assistance towards resilience.



## **ALBEMARLE SOUND ALGAL BLOOM UPDATE**

Brian Wrenn, Ecosystems, Branch Supervisor, DWR, and coordinator for the Nutrient Criteria Development Committee, presented information on nutrient criteria development in the Chowan River/Albemarle Sound. He provided a brief history on nutrient criteria development in NC and covered algal blooms in the area including existing conditions and the status of the sound. He explained that nutrient criteria are linked to the protection of designated uses of waters. The Scientific Advisory Council (SAC) was created to advise on development of scientifically defensible nutrient criteria and is composed of experts in water quality and nutrient management. The Criteria Implementation Committee (CIC) was created to comment on social and fiscal impacts of draft nutrient criteria and is composed of economists, stakeholders, and academia. DWR plans to have criteria finalized in two years, with a 2024 deadline to have associated rules in place.

There are several sampling stations in the Chowan River system. Organic nitrogen (TKN) has increased over time. In Potecasi Creek, nutrient patterns shifted around 2002, with nitrate concentrations declining and TKN and total Nitrogen increasing. Phosphorus has remained fairly stable. The cause for that is unknown. He presented data of other waterbodies (Blackwater and Nottaway rivers). In Nottaway River, TKN and total Nitrogen have increased similar to the Potacasi, but to a lesser extent. In Blackwater River, they have seen a decline in Nitrogen and Phosphorus over time, in contrast to what is occurring in Chowan. There were initial thoughts that the increases were from Virginia but this data suggests this is a North Carolina problem, not a Virginia problem.

Wrenn discussed the 2019 algal blooms in Chowan, Perquimans, and Pasquotank rivers as well as the different toxins that are encountered, with microcystin being very serious. Concentrations were highly elevated in some blooms (Arrowhead Beach, Indian Creek, Leary Landing), requiring health advisories. In the last two days they have had six reports of blooms near Elizabeth City. He also commented that they are seeing blooms starting earlier and lasting longer.

The group discussed indicators such as chlorophyll a, but Wrenn stated that there are no waters impaired based on chlorophyll a. This is partly due to how the water is collected throughout the water column, so the blue-green algae on the surface is diluted. The SAC will work on determining these criteria.

## **PROPOSED JURISDICTIONAL BOUNDARY CHANGES**

Deaton gave a presentation about the reclassification of jurisdictional waters. This is an ongoing issue with the NC Wildlife Resource Commission (WRC) due to the periodic rule review process. She provided the definitions of the different fishing waters and background on how this issue originated due to periodic rule review, joint rules, and different determinations regarding rule review. WRC determined the joint rules regarding jurisdiction had substantive public interest, while MFC determined they did not and had already submitted those rules to Raleigh. A committee of MFC and WRC commissioners was formed to discuss how to handle the conflict regarding periodic rule review differences. The committee asked DMF and WRC staff to determine a science based method to evaluate joint fishing water boundaries. Deaton summarized the different ways to define the upper limit of an estuary and delineate boundaries, such as head of tide, salinity zones, biologically based salinity zones, and the physiographic line.



She also described the way the group analyzed the data based on these different methods and from a regional and flow year perspective. Based on Bulger et al. 1993 the WRC suggested modifying boundaries based on 4 ppt salinity contour and then ultimately proposed modifications based on a 2.6 ppt salinity contour (Keup and Bayless 1964), DMF suggested if a change was necessary, boundaries approximating a 0.5 ppt salinity contour would be more consistent with scientific literature, EMC saltwater classifications, and the methodologies previously described, and supported by the NC fish data. After several meetings of the committee, the MFC and WRC commissioners were unable to come to consensus on how to revise boundaries and a recess was called. At the August 29<sup>th</sup>, 2019 WRC business meeting, without input from the MFC, WRC approved preliminary boundary maps and moving forward with revising jurisdictional boundaries based on 2.6 ppt salinity. Deaton then provided information on the impacts of the proposed 2.6 ppt boundaries, including a loss of 144,784 acres of coastal fishing waters to inland waters, and impacts to commercial fishing, MFC designated Primary Nursery Areas, Anadromous Fish Spawning Areas, as well as Coastal Resources Commission's estuarine Areas of Environmental Concern (AEC) designations. Where jurisdiction of coastal waters change to inland, this estuarine AEC classification would change to Public Trust AEC, decreasing storm water runoff restrictions. It would also impact Division of Coastal Management (CAMA) Coastal Counties and their Land Use Plans. It would also require statutory changes in the Coastal Area Management Act and Dredge and Fill Act. The group also discussed possible impacts to EMC water use classifications.

The committee debated the issues of the boundary changes including questioning if there is a problem with the current boundaries. Chad Thomas, WRC biologist explained that these rules had not been revised since 1965 and that they were interested in using science based criteria to base these boundaries. He stated that they will investigate impacts on fishing and other agency rules that provide habitat and environmental protection. He said that commercial fishing could possibly be allowed, but currently gill netting is not. It was also noted that this would impact the ability to catch blue catfish, an invasive introduced species that is devastating other native species through predation, including river herring. Thomas also stated that WRC has not moved forward with any rule making yet. Committee members continued to question why this was going forward if there are no apparent problems with the with the current boundaries. DMF staff stated that their agency proposed no changes in the boundary lines. Committee members continued to discuss their concerns over the process, concerns of impacts to CRC rules and EMC rules, the loss of 1,600 miles of coastal shorelines and the loss of Gates and Herford counties as coastal counties.

### **OTHER BUSINESS**

The next meeting will be sometime in January. Mr. Johnson will send out a poll to determine the best date. Please send him any agenda items for the January meeting.

/plm

Enclosures

Meeting adjourned.

cc: Tim Baumgartner    Braxton Davis    Casey Knight    Steve Murphey    Danny Smith  
Bill Crowell    Samir Dumpor    Mike Lopazanski    Trish Murphey  
Linda Culpepper    Daniel Govoni    Ian McMillan    John Nicholson



**From:** James Hargrove [REDACTED]  
**Sent:** Monday, October 14, 2019 10:42 AM  
**To:** Deaton, Anne <[anne.deaton@ncdenr.gov](mailto:anne.deaton@ncdenr.gov)>  
**Cc:** Johnson, Jimmy <[jimmy.johnson@ncdenr.gov](mailto:jimmy.johnson@ncdenr.gov)>; [REDACTED]  
**Subject:** [External] RE: CHPP Steering Comm Mtg.

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Anne,

That is unfortunate considering modern technology. If you guys want more feedback from the general public you should really consider getting a call-in line for every meeting. Seems to me like you do not want user feedback otherwise you would find a way to engage the public better. This is a typical agency status quo rather than inability. Please consider making it a priority to get call in numbers for all public meetings.

Since I won't be able to make it in person I would like for my message to be heard again.

The states Relay Program is killing our estuaries. Just a few weeks ago the permanent closure boundaries were pushed farther out of these tidal creeks to the tune of over 150 acres, and this is in a drought year. If nothing is done to curb this degradation, your inaction will kill the majority of oyster farming locations in the southern portion of the state. Instead of spending millions on re-deploying oyster shells, why not keep it in place where it has the best chance to remove pollution?

We are only as good as the quality of our water, without it we have nothing. As an environmental steward, scientist, and oyster farmer, one practice that stands out as detrimental and archaic to NC's water quality initiative and shellfish mariculture industry. This is the practice of **NCDMF's relay-depuration program**. This program was developed to allow low-output, extensive shellfish gardeners to harvest wild shellfish from polluted tidal creeks that are closed due to bacteria (fecal coliforms and other pollutants), then transplant them to their bottom lease. The problem with this method is, by removing the biological filtration and habitat from these creeks pollutants and sediment from runoff are allowed to flood the greater estuaries and bays of our state. With modern technology in breeding, cultivation, and oyster seed availability, there is no need for the harvest of the biological filters that prevent estuaries from receiving high levels of polluted runoff. **It is absolutely counterproductive to keeping the waters of the state safe and clean.** Along with the negatives associated with removing these water scrubbers (oysters), when the shellfish are relayed to the gardener's lease, the lease shuts down for a number of weeks to allow the oysters to release the bacteria/pollutants (depuration). These leases can be adjacent to other open leases and there is a possibility of contaminating those leases and creating a human health hazard.

James Hargrove

**From:** Deaton, Anne <[anne.deaton@ncdenr.gov](mailto:anne.deaton@ncdenr.gov)>  
**Sent:** Friday, October 11, 2019 11:49 AM



**To:** James Hargrove <[REDACTED]>  
**Cc:** Johnson, Jimmy <[jimmy.johnson@ncdenr.gov](mailto:jimmy.johnson@ncdenr.gov)>  
**Subject:** CHPP Steering Comm Mtg.

Hi James. I'm happy to see you want to be involved. Unfortunately, we won't be able to have a conference line available for this meeting. I can send you the minutes though or if you can make it to Morehead, that would be great.

Anne

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DRAFT



**From:** Keith Walls [REDACTED]  
**Sent:** Monday, October 14, 2019 11:32 AM  
**To:** James Hargrove [REDACTED]  
**Cc:** Deaton, Anne <[anne.deaton@ncdenr.gov](mailto:anne.deaton@ncdenr.gov)>; Johnson, Jimmy <[jimmy.johnson@ncdenr.gov](mailto:jimmy.johnson@ncdenr.gov)>  
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Good morning,

I agree with James. Having a call in number is an easy fix, and there is no excuse not to have one in 2019.

Furthermore, the relay program makes absolutely no sense to me. The oysters in the tidal creeks are closest to the primary source of pollution and our last line of defense. Removing these filters allows closure lines to steadily progress toward our sounds and our aquaculture businesses. **We should be doing the opposite! We should be putting more oysters in the tidal creeks, not removing them.** We need buffers and filters in place to combat the poor planning and overdevelopment that is occurring at an unprecedented rate in the southern part of our state. Otherwise, **the non-point source pollution will continue to increase and aquaculture in the southern part of the state will be gone.** Nobody can be expected to invest money in a business that depends on water quality without having some support from the state that goes into protecting the growing waters, and that starts with ending archaic nonsense like removing oysters from the tidal creeks where they are needed the most. There is now an ongoing effort to restore Bradley Creek and Hewletts Creek due to the overdevelopment in those areas. **We still have an opportunity to preemptively place more oysters in the tidal creeks north of Ogden to defend against what we know is coming (more development). Otherwise, we will see conditionally open areas become conditionally closed, and eventually prohibited.** As a GIS Analyst and marine scientist, it's clear to me from the closure maps that the closure lines are shifting. Moreover, the state has spent a lot of time and money promoting aquaculture over the last several years, and based on that information, a lot of growers are investing their time and money to get into the industry. **If the state does not wake up and begin putting a plan in place to protect the growing areas, it will all be for nothing!** We have to be forward thinking and meet the challenge of overdevelopment and water quality degradation head on! If we continue with a "business as usual" attitude and do not reevaluate outdated programs like the relay/depuration program, we stay stuck in the past and the shellfishing industry in the southern part of the state will not survive. **There is a lot of talk about making NC the Napa Valley of Oysters, well, if you look at the history of the Napa Valley, the first thing the growers there did was create an Agricultural Preserve (the first of its kind in the U.S.) to protect the growing areas from the urban sprawl of San Francisco. You can read about it at this website <http://napaagpreserve.org/> We need to be thinking the same way! Please consider reevaluating the relay/depuration program and listen to the growers that are asking for your help to protect our fledging Aquaculture industry. We have something special, but we need to protect it!**



Keith Walls

On Mon, Oct 14, 2019 at 10:41 AM James Hargrove <[REDACTED]> wrote:

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