

# APNEP Contaminants Management Workgroup

## Meeting Notes

August 5, 2014

Kinston-Lenoir Public Library  
510 Queen Street, Kinston, NC

Attendees: Bill Crowell, APNEP; Anne Coan, NCFB; Matthew Davis, NCSU/APNEP; Jim Hawhee, APNEP; Dean Carpenter, APNEP; Sarah Collins, NCLM; Steve Kroeger, NCDWR; Michelle Moorman, USGS; Sid Mitra, ECU; Mike Piehler, UNC; Tom Augspurger, USFWS; Kathy Stecker, NCDWR; Dianne Reid, NCDWR; Heather Deck, PTRF; Sarah Ludwig, Duke/PTRF.

Jim Hawhee called the meeting to order at 10:07 AM. Jim asked each attendee to introduce themselves, their agencies, and what they are interested in hearing from the meeting.

Bill Crowell provided a presentation to describe APNEP's mission, history, workgroup structure, granting process and the CCMP.

Dean Carpenter presented an overview of the workgroup's CCMP actions and described the development of management and environmental indicators. These actions are linked to the goals and outcomes detailed in the CCMP.

- There are 58 CCMP actions that are aggregated into five components (Identify, Protect, Restore, Engage, and Monitor).
- APNEP's Ecosystem-Based Management (EBM) transition team consists of representatives from the APNEP Policy Board, APNEP Science and Technical Advisory Committee, Citizens Advisory Committee, state and federal representatives, EBM technology transfer consultants, and staff.
- Four of the CCMP actions are designated for the Contaminants Management workgroup (A2.4, A2.5, C1.1, and C1.2). All of the actions are described in the APNEP CCMP.
- The Implementation Committee has not been formed, but will be created pursuant to APNEP's most recent executive order. STAC members will be assigned to each workgroup for technical support.

Jim Hawhee presented an overview of North Carolina's estuarine nutrient criteria.

- Jim described the history of estuarine nutrient criteria for our state estuaries, approaches for setting criteria, and tasks and timelines for the workgroups.
- The nutrient criteria development plan was mutually agreed upon between DENR and the U.S. EPA, with APNEP taking a supporting role for development of estuarine nutrient criteria in Albemarle Sound.
- Diane Reid noted that "Numeric Nutrient Criteria" is defined in the Nutrient Criteria Development Plan. Jim agreed to change the definition in the presentation to that in the NCDP.
- Question: What is the implementation committee supposed to do?

- Answer: The implementation committee is to guide implementation of plans and actions within the CCMP. If a workgroup needs the implementation committee to fund items, then the workgroup would go to the implementation committee to ask for funding.

The group broke for lunch 12:05 PM and reconvened at 1:21 PM for discussion.

Jim provided some ground rules for discussion and sought input regarding additional rules.

Input was sought regarding the four CCMP actions assigned to the workgroup, aside from the nutrient criteria process. Jim asked which attendees were primarily interested in working with pharmaceuticals and metals. Sid Metra and Tom Augspurger expressed an interest in these topics, and Dean Carpenter agreed to facilitate a discussion to frame next steps for these two related actions (A2.4, A2.5). With the exception of estuarine nutrient criteria, further discussion regarding actions C1.1 and C1.2 was tabled.

Jim sought input regarding other people who might serve on the workgroup. He also noted the absence of workgroup members from the Albemarle Sound area and sought support from the workgroup in recruiting these members. Recommendations given were:

- NCDACS (generally) is a great source for accessing monitoring data for various contaminants and nutrients (especially phosphorus from hog operations).
- Greg Cope, NCSU for toxicology and risk assessment advising.
- David Spring, Greenville Utilities for nutrient implications impacting WWTP.
- Bob Christian. Dean noted his participation on another workgroup.
- Carl Crozier, NCSU
- Deanna Osmond, NCSU
- Diane Hardison, Domtar
- Martin Lebo, Weyerhaeuser
- Ana Zivanovic-Nenadovic, NCCF

Discussion turned toward approaching the nutrient criteria for Albemarle Sound. Jim asked the group what types of resources they might be able to provide, and resources they might seek. Attendees noted that this might be premature, as identification of the uses and ecosystem attributes to be protected through nutrient criteria had not yet been discussed. Other items of note included:

- There may be biosolids risk assessment documents from employees in DENR. Also, there are several soil scientists from NCSU that have the ability to provide insight into biosolid nutrient impacts.
- It was agreed by several attendees that it would be helpful to determine what data is available now for the Albemarle Sound, and what data is not available. The creation of a general Excel parameter table of where known data was measured, why it was measured and how long it was measured was recommended by several attendees. (Chlorophyll, DO, Turbidity, TSS, SAV etc...) We may be able to create preliminary tables from the USGS datasets.
- There are regional models and models for the Albemarle Sound that the USGS may have. If necessary, we should adapt the model that already exists and modify it. What questions do we

hope to answer with the models? We may not have enough data to complete model simulations for future events.

- Regression analyses with current data may be useful for correlating nutrient inputs and resulting environmental changes.
- Several members offered to provide publications and data sources to assess changes (if any).
- It can be difficult to reference nutrient levels without knowing residence times (Jim's note- residence time for water in Albemarle Sound is approximately 45 days.)
- Depending on the workload, it appears it may be necessary for a contractor, graduate student or some other source to assist in assimilating relevant data for this project.
- It was suggested that the workgroup should focus on a smaller set of promising nutrient criteria further in-depth, rather than assessing each causal and response variable individually. Chlorophyll a and turbidity were suggested as promising candidates.
- How important is phosphorus in controlling primary production? There are some organisms that can fix their own nitrogen but bloom with excess phosphorus.
- General consensus appeared to suggest support for the water body use designations in and around Albemarle Sound (SB, primarily). Differentiation in these uses primarily relates to bacteria and pathogen issues rather than nutrient inputs.

An in-person meeting was recommended in approximately two months (October).

Support for file sharing and a listserv was requested, which Jim agreed to investigate.

The Contaminants Management Workgroup Meeting concluded at 2:59PM