

**Albemarle-Pamlico National Estuary Partnership
Air Resources Monitoring & Assessment Team**

WebEx Meeting

10:30 – 11:30 AM

July 23, 2018

Meeting Notes by Tim Ellis

Team members in attendance:

Robin Dennis (USEPA - ret.; Team Lead)
David Glenn (USNWS)
Jim Hawhee (NCDWR)
Heather Murphy (NCDAQ)
Donna Schwede (USEPA)
John Walker (USEPA)
Jess Whitehead (NC Sea Grant)

APNEP staff in attendance:

Dean Carpenter
Tim Ellis
Stacey Feken
Jimmy Johnson

Agenda/Summary:

The purpose of this meeting was to develop a course map for the remainder of 2018. The agenda included making a final review of the team's list of indicators and associated metrics to date and confirming which of these most aligned with specific team members based on their expertise and interest.

Dean Carpenter began the meeting with a brief review of the team's history. He noted that by the end of the year there needs to be solid draft reports summarizing the status and trends of 3-5 of the metrics being considered by this team. These reports will be approximately 5 pages long and should target technically-inclined environmental managers. Later, there will be a distilled version of some of these reports for non-technical audiences. Dean noted that at this meeting, the team needs to identify individuals who can lead on each metric. The indicators and associated metrics being considered by this team reflect the anthropogenic stressors to the ecosystem that are associated with air resources.

Dean informed the team that APNEP has been unsuccessful at recruiting someone from the North Carolina Climate Office to join the team. He asked if there were other suggestions for new team members. [no suggestions from the team at this time]

Heather Murphy introduced herself to the team. She is new to NCDAQ and works in the Ambient Monitoring Section. Heather is taking Jim Bowyer's place as DAQ's representative on this team.

Robin Dennis led the team through a full review of the team's current list of indicators and associated metrics. Key notes from this discussion are below.

- *Nutrient Deposition*
 - John Walker and Donna Schwede will lead an assessment of *total nitrogen deposition*. Donna informed the team that the EPA has results from a 2016 model coming out soon.
 - Jim Hawhee noted that following the team's meeting on 3/27/17, he had an action item to develop a short paragraph explaining the relevance of *atmospheric phosphorus deposition* as a potential new metric. He emailed a draft of this paragraph to Dean Carpenter and John Walker on 6/7/17. Jim was unaware of the team's 1/29/18 meeting (due to APNEP's error in emailing), but would like to now revisit the discussion on this potential metric. He noted that the NC Policy Collaboratory and UNC-CH are currently doing some new modeling as part of a nutrient management study for Jordan Lake and Falls Lake.
 - Donna Schwede noted this metric was dropped at the last meeting because there isn't a data layer to work with and it isn't something that is routinely monitored. She noted that there is still much to understand regarding the atmospheric deposition of phosphorus, but some groups are working on a phosphorus inventory. Donna stated that there is a postdoc in their lab at the EPA who is studying phosphorus related to forest fires.
 - After further discussion, the consensus of the team is to include a narrative (couple of paragraphs) in the assessment of this indicator (*nutrient deposition*) about the importance of phosphorus and why the status and trends of this metric (*atmospheric phosphorus deposition*) can't be reported on at this time. Jim Hawhee will lead this effort.
- *Ambient Ozone*
 - Heather Murphy will lead an assessment of *ground-level ozone concentration*.
 - Robin Dennis suggested that the analyses and write-up be similar to what was done for the 2012 APNEP Ecosystem Assessment.
 - It was confirmed that there are no ozone monitoring stations in the Virginia portion of the APNEP region.
 - Dean Carpenter asked if anyone knew of any Virginia colleagues that could be asked to join the team. Heather Murphy stated she could help recruit someone.
- *Metals Deposition*
 - Donna Schwede and John Walker will lead an investigation of *mercury deposition* to determine if there is sufficient information for an assessment in the APNEP region.
 - It was noted that North Carolina has a limited number of mercury monitoring stations. There are two wet deposition sites, one in Greensboro and the

other in Wilmington. Information on mercury deposition in other places in the state comes from data generated in Canada and extrapolated to North Carolina with high uncertainty.

- *Regional Climate*
 - Jess Whitehead, David Glenn, and Dean Carpenter will lead assessments of *ambient air temperature, precipitation, and storm frequency and severity*.
 - It was noted that data are available for these three metrics, and David and Dean will work together to coordinate efforts on these climate data.
 - Jess Whitehead will contact Jordan McLeod at the Southeast Regional Climate Center for quarterly reports on North Carolina climate data.
 - Donna Schwede will contact John Iames (USEPA) regarding the type and availability of data to assess *photosynthetically active radiation (PAR)*.

An updated list of indicators that includes the edits made during this meeting will be emailed to the team.