

**Science and Technical Advisory Committee**  
**Fall Virtual Meeting**  
**Albemarle-Pamlico National Estuary Partnership**  
November 16, 2023

STAC Members: Paul Angermeier (Virginia Tech/USGS), Jud Kenworthy (NOAA ret.), David Glenn (US-NWS), Wilson Laney (NCSU), Bree Charon (NCCF), Paul Cough (US-EPA ret.), Don Field (NOAA ret.), Timothy Goodale (ECSU), Nathan Hall (UNC-IMS), Pete Kalla (EPA-R4), Rua Mordecai (USFWS-SECAS), Dan Obenour (NCSU), Hans Paerl (UNC-IMS), Jonathan Phillips (UK ret.), Kelly Somers (EPA-R3), John Walker (EPA-ORD), Rich Whittecar (ODU ret.)

EPA Staff: Angela Padeletti (Reg 3)

APNEP Staff: Dean Carpenter, Tim Ellis, Bill Crowell, Steve Anderson, Jimmy Johnson, Heather Jennings

### **Call to Order**

Angermeier: called the meeting to order.

- Welcomed all members and others to the meeting.
- Provided an agenda review and meeting objectives.
- Meeting notes from the STAC spring and summer meeting were moved/seconded and approved.
- There were no public comments.

Kenworthy: Asked if any new members were attending for first time.

Sommers: First time participating as a STAC member, having participated in the past as an EPA representative.

Carpenter: Nathan Hall and Bree Charron participated in the summer meeting as observers, so this is their first meeting as STAC members.

### **APNEP Staff Update**

Carpenter: Members received the staff updates report prior to the meeting. Wish to highlight a couple of the update topics (since the STAC summer meeting in late August):

- SAV Monitoring & Assessment Team (MAT): high salinity fall aerial surveys (Tier 1) in the “Pamlico South” subregion, the third of four subregions within the footprint running from Ocracoke to Avon, occurred on October 9. Regarding boat-based operations (Tier 2), like the spring survey the objective was to survey 150 stations, yet only 90 stations were surveyed due to very poor fall weather conditions.
- Water Resources MAT: Staff is developing an estuarine waters and sediments strategy and plan to hold four estuarine metrics sessions in November, who participation

includes MAT members and additional partners who have expertise in particular indicators. The strategy should be completed in the first quarter of 2024.

- Air Resources MAT: This team is developing a short-term precipitation events metric report as an initial climate report. Earlier the team produced a total nitrogen deposition report as their first chemical composition report. They also in the early stages of developing an air resources monitoring strategy.
- Other MATs: Aquatic Fauna, Human Dimensions, Terrestrial and Wetlands have been inactive. Dean hopes that scheduling for these will begin soon after this meeting. The first activity will probably occur in January. Two of the teams have technical leads, Aquatic Fauna and Wetlands. The other two do not presently have technical leads.

Cough: How does the proposed work for estuarine waters and sediment line up with what NCDEQ has been doing for water clarity?

Carpenter: Four STAC members are on NCDEQ's Science Advisory Committee (SAC): Kenworthy, Paerl, Laney, and Hall. They could probably better answer the question.

Cough: Would any of the four members be willing to fill in that gap and thus provide an example of actionable information?

Kenworthy: There are many opportunities to interact. To some extent we all understand how things operate in stovepipes, and it is important for APNEP to interject itself into the process. The science part of the water clarity standard is completed. It is now in the hands of the implementation committee. They will decide on the sample site number and locations, and how agencies will participate. It will be important for APNEP to track developments. The SAC is now starting to focus more on chlorophyll. APNEP need to be proactive and remain involved.

Paerl: Chlorophyll is an important parameter. Also, CDOM and other optically active components need to be addressed as well. We have chlorophyll covered. There are other metrics that also could be monitored. The next stage is to see how we will incorporate the monitoring programs, and the nutrient analyses that would have to be done. We are putting up ModMon as a template. That is a good start, and it does include all of the nutrient measurements. It does dovetail with the state's nutrient monitoring program. We haven't had a meeting yet to discuss using ModMon as a template. It is complementary to the state's ambient monitoring program. ModMon is surveying at a much higher frequency than state surveys. All of that needs to be ironed out. The state is getting less and less involved in intensive monitoring, for financial reasons. The universities are going to have to step up more to cover the temporal gaps that we see. With respect to remote sensing, we have had some interactions with folks involved in that approach. Currently that is where we are. With the busy field season over, now is the time when we can have some all-hands meetings.

Cough: This information is appreciated and look forward to more information about what APNEP is proposing for monitoring.

Laney: The next SAC meeting is tomorrow. Assume the public could listen in.

Paerl: Tomorrow's SAC meeting will begin the discussion of which he spoke. We need to involve some of the NCDEQ staff who are monitoring some of the other river systems, like the Neuse and Chowan. The Water MAT in September held a session about remote sensing, led by MAT member Darryl Keith.

Carpenter: The Water MAT is focused on the sounds at present. Once they finish that task, they will work on the rivers, the tributaries. The rivers and tributaries are quite dark insofar as far as monitoring goes. If the NCDEQ staff participate in the forthcoming sessions, they should be well engaged.

Paerl: There are some data sets we would like to incorporate, but we have had difficulty getting them. He gave the Pamlico River as an example. We must depend on the state's ambient monitoring program.

### **Discussion Topic: Proposed 2024 Operations**

Angermeier: The following is a short presentation on this topic. There have been a couple meetings of the STAC Executive Board, with staff, and our objective is to increase STAC participation and engagement. We came up with an ad-hoc "focus team" approach. These would involve shorter-term (first phase no longer than three months) work that would allow a focus on one or two specific actions. There is also the opportunity to provide some grad student and/or faculty funding. The focus teams would be led by STAC members who could recruit others as they see fit. They could come from APNEP's Citizen Advisory Committee (CAC), or the Leadership Council (LC), or other arenas. The STAC Executive Board would craft and offer focus team assignments. Member contributions to the MATs would remain unchanged.

A second tweak we considered is to still have quarterly STAC meetings, but focus on STAC administration, and cross-MAT integration. These would be virtual meetings of 90-150 minutes. We would have a shift from more general meetings to meetings by the selected teams. Paul asked for feedback.

Somers: Would the focus teams would have "challenges" identified by the LC, CAC or internally by the STAC?

Angermeier: All of the above. We haven't identified a process. When the STAC member sees a problem that they can speak to, we want a process to allow them to react with as little bureaucracy as possible. The LC can provide input as to how urgent they are, how many members are on board to address them, and so forth. Any of those starting points would be acceptable.

Kenworthy: The option for getting STAC members to take initiative would be a priority. But the Executive Board could also offer some potential topics that might provide food for thought, for members to think of their own topics. The survey results indicated that staff members do have some particular projects they would like to see addressed.

Cough: Supports the idea of focus teams. Like the idea of initiatives that have a beginning, middle, and end, as opposed to ongoing projects without defined timelines. What are a few examples of focus team topics?

Kenworthy: A starting point would be for members to review some of the responses to the member survey questions. Some those answers were clearly pathways into some of the potential focus teams and may guide their initial development.

Angermeier: Does any member have concerns? All we have heard so far is more or less positive feedback to go ahead and try this mechanism for engaging members. Does anyone see any potholes?

Laney: Perhaps as a next step, given that no member appears to have an objection, would be for the Executive Board to derive an initial list of potential focus team topics as you suggested.

Kenworthy: We may be able to draw some of those out of the survey responses for the more complex questions that elicited more than a “yes” or “no” response.

### **Discussion Topic: 2023 STAC Member Survey Results**

Kenworthy: The important thing for the STAC membership to understand is that we approached the survey as an effort on the part of the Executive Board to reach out to them to give them the opportunity to lead us forward and not rely solely on the Board to lead us into the future. This is a pretty favorable time: we have good funding, there is many very important and I think interesting topics that are part of our mission, especially the priority items. There are also things in the region that are important that came out clear in some of the survey responses. There are probably five survey questions that we can address today and are straightforward. The remaining questions are quite complex with interesting and informative responses that we will need further thought to help make the survey responses useful to us in the future.

Kenworthy: We had a good survey response rate, in fact the response (n = 17) was more than twice the response of the STAC 2012 member survey. For those members who did not submit a survey response, yet want to comment or respond to any of the questions, feel free to email either Co-Chair and we will ensure your responses will be incorporated anonymously.

Kenworthy: Provided first impressions of member response to survey Question 1 (STAC meeting format preference).

Whittecar: I find it extremely handy to meet other members in person, particularly those who you have never met before, to share ideas and build relationships.

Moredcai: If you are doing updates and making some lighter decisions and feedback, then the virtual format works well. If, however, you are in-person and maximizing the time members have to interact, that a good use. Also, for really hard decisions for the STAC to make, like complicated trade-offs, those are better in-person. For the in-person meetings, making as much space for those interactions that Rich was referencing, and doing more of the regular virtually, I think is a good approach.

Laney: I think all members would probably optimally prefer in-person interactions, which do provide that opportunity for networking. Yet I know that during the pandemic we all were grown accustomed to save time and money by meeting virtually that there is a bias in that direction. Now, that perspective comes especially from those folks in the agencies who oversee the travel budgets, but we should keep on that same track for the focus teams. It's going to be important for those teams to meet in person. Does APNEP have the funds to have some in-person meetings when the STAC feels they are warranted?

Crowell: Yes, as long as we are not being extravagant, we can cover travel reimbursement, cost and meeting calls where necessary.

Kenworthy: Provided first impressions of member response to survey Question 2 (STAC meeting facilities requirements).

Somers: Returning to Question 1, in addition to scheduling the meeting dates for the upcoming year, it would be helpful to flag the meetings that will be in-person, so members have one or two months advance notice.

Laney: When an in-person meeting is scheduled, it might be good to combine that with a focus team meeting to cut travel costs down. Yet that may necessitate overnight stays.

Kenworthy: Provided first impressions of member response to survey Question 3 (STAC meeting frequency).

Somers: Participates in a couple of other NEP science & technical committees. One of these meets twice annually and it does feel like a long time between meetings. Another meets quarterly, in which two of these are combined meetings with an implementation committee. Another one meets with a monitoring advisory committee and a management advisory committee separately. Just some insight of meeting frequency and joint meetings by other NEPs.

Crowell: Suggest scheduling at least four meetings annually.

Kenworthy: Provided first impressions of member response to survey Question 4 (STAC shorter meetings + subgroup participation).

Kenworthy: Provided first impressions of member response to survey Question 7 (New method of STAC candidate recruitment).

Laney: Where would the advertisement be distributed?

Angermeier: It would depend in part on the expertise sought.

Carpenter: APNEP has an effective engagement network, include via the MATs, newsletters and other various publication staff utilize regularly to get the word out.

Crowell: NCDEQ Human Resources just hired a recruitment person, so they could assist APNEP in increasing diversity and reaching out to groups.

Angermeier: Another option is professional societies.

Kenworthy: North Carolina Coastal Federation publications may be another outlet.

Laney: Particularly their flagship daily publication "Coastal Review".

Kenworthy: Provided first impressions of member response to survey Question 5 (Integrative and cross-resource topics).

Paerl: Depends a lot on the question or issue. Perhaps if this question can be rephrased to challenges or research projects that would encourage interdisciplinary or overlapping kind of involvement.

Mordecai: Regarding Question 10 (Main role of STAC member), is a good question to ask occasionally.

Somers: Sharing the STAC bylaws is helpful too if there is recruitment.

Kenworthy: It would be nice to get feedback from members as to what they thought about the survey., how it benefited them and how they think it may benefit leadership and helping guide the STAC forward.

Somers: The survey was easy, and it really was no time effort. Happy to participate in these kinds of things in the future and viewing the results was interesting.

## **Discussion Topic: Proposed 2024 CCMP Actions**

Angermeier: We do not have time to address this agenda item in depth, we will take this up later. Keep in mind that the CCMP actions are under revisions now and they do tie in very closely to much of what was discussed today, particularly with respect to the focus teams, and even the survey topics. I encourage members to revisit the proposed CCMP actions. Within the CCMP actions most recently distributed to members, I will just call attention to a couple of new actions: (1) regional wetland protection and management strategy, and (2) developing and refining a second-generation regional ecosystem assessment and supporting assessments such as indicator metric reports and syntheses, so essentially a revised assessment.

### **Action Items**

- Staff distribute to members the 2023 survey results in spreadsheet format.
- Executive Board to (1) develop a short list of focus team topics, (2) think about how to budget time at STAC workshops to expand networking time, (3) develop further STAC recruitment methods, (4) explore further the survey results.