

Science and Technical Advisory Committee
Spring Virtual Meeting
Albemarle-Pamlico National Estuary Partnership
May 18, 2023

STAC Members: Paul Angermeier (Virginia Tech/USGS), Carolyn Currin (NOAA ret.), Lee Bodkin (USGS), Paul Cough (US-EPA ret.), Bo Dame (Chowan Univ.), Timothy Goodale (ECSU), John Iliames (US-EPA), Pete Kalla (US-EPA), Jacob Peterson-Perlman (ECU)
EPA Staff: Angela Padeletti (Reg 3), Megan Mackey (Reg 3), Kelly Somers (Reg 3)
Others: Brandon Puckett (NOAA-NOS)
APNEP Staff: Dean Carpenter, Tim Ellis, Bill Crowell

Call to Order

Angermeier: called the meeting to order.

- All members and other meeting attendees welcomed.
- Since assuming leadership last July, STAC co-chairs have worked to bolster member engagement, so on that theme a couple of points: (1) having only one member provide updates is disappointing: members are not expected to submit updates every quarter, but there is interest in seeing anything with the member's region or organizational network that might be of interest to the STAC, so we encourage more reporting of highlights; (2) need to recruit STAC members to serve as technical leads for the water, terrestrial, and human dimensions monitoring & assessment teams (MATs).
- Meeting notes from the STAC winter meeting were approved.
- There were no public comments.

APNEP Staff Update

Carpenter: Members received the staff updates report prior to the meeting. Wish to highlight a couple of the update topics, as is custom:

- SAV high-salinity spring surveys in the "Pamlico South" subregion, the third of four subregions within the footprint running from Ocracoke to Avon, will commence later this month. NC-DOT Photogrammetry team acquired on May 12 aerial images for SAV interpretation (Survey Tier 1). Boat-based operations (Tier 2) will take place May 23 – June 16, where the objective is to survey 150 stations.
- Spatial targeting project, which began with member contributions at the STAC winter workshop, will be recruiting a small steering committee that will include STAC members.
- There were no questions.

Crowell: STAC leadership asked for a staff update on enhanced funding coming to APNEP for the next five years. Such funds are set to come to all National Estuary Programs under the

Infrastructure Investment Jobs Act of 2021. APNEP's core funds will continue to run about \$700K, but for the next five years the partnership will be receiving an additional \$900K for program implementation. Last year APNEP submitted to EPA a two-year plan and received approval in February 2023 to do many activities preferably within the first two years. We are also updating our Comprehensive Conservation Management Plan (CCMP), which will have a five-year horizon as opposed to ten years of the previous CCMP. The Leadership Council has been the group spearheading plan development to date, which we hope to complete by year's end then submitted to EPA. The CCMP is our general approach for spending these funds for implementation. Any questions about the funds?

Dame: Are there projects that have been identified, or areas that projects that may or may not been identified that will be addressed?

Crowell: Some example "line item" projects that were submitted under the two-year plan, that supports the five-year CCMP: (1) APNEP financial plan and (2) spatial decision support, which has two supporting projects; one being a spatial targeting strategy exercise to identify where to allocate restoration funds for priority natural resources (STAC contributed to this project during their winter workshop), and the other being the development of an inventory of uses and resources to support future estuarine spatial planning. The two-year plan also includes general categories of projects or "focus areas": water quality, submerged aquatic vegetation, coastal wetlands, oysters, habitat, and community resilience. Within APNEP's annual work plan (recently submitted to EPA) a list of hypothetical projects is provided as examples. Other projects therein will use an RFP mechanism, perhaps a stormwater retrofit project or green school yard project.

This does provide APNEP will more funds than has been available for many years. We have been stymied too that the state does not provide a cash match. The Governor's budget has a line item to match APNEP's grant, but that funding source is by no means certain.

Regarding the draft CCMP actions that were provided to STAC members, beginning a couple of years ago staff and some partners conducted exercises to review the 2012 CCMP actions to determine whether they should be dropped, combined, refined, or moved "as is" to the next generation CCMP as legacy actions. The resulting list was then given to the Leadership Council for further refinement. Each resulting action includes a short narrative and anticipated key partners. Actions deemed "priority" are those aligned with the focus areas.

EPA conducts a program evaluation every five years of each NEP, composed of two parts: a narrative report in accordance with an EPA template (staff submitted in March) and a site visit by the EPA review team (most likely in late June, early July). Staff may be calling upon a few members to meet with the review team, as was the case during the 2018 evaluation.

Cough: Please provide a bit more context for the CCMP actions. What stands out to me is to make sure that these actions provide actionable information, which is to say somebody uses the information to do something.

Crowell: These are objectives and actions that have been carried over and updated from the previous CCMP. When we put together APNEP's annual work plan or even assigning activities that we want STAC to work on, it must align with a goal, outcome, objective, or preferably an action. The CCMP provides overall direction for our program and is a kind of total guiding document for what we do.

Cough: Are those actions listed as "priority" receive the biggest infusion of funds for this five-year period?

Crowell: That would be my current assumption, but since we're still evaluating, whatever actions ultimately receive that label are those the Leadership Council wishes to direct initial support or focus for the program.

Discussion Topic: Feedback on Candidate "Legacy" Actions for the 2023 Comprehensive Conservation Management Plan (CCMP)

Angermeier: Staff and STAC co-chairs have asked members to submit comments on the draft CCMP actions by today. These actions will eventually need to be finalized and ratified this fall. The STAC co-chairs Jud and I will meet with the Leadership Council on Monday (May 22) and convey whatever commentary the STAC wants to offer and that will be processed in terms of how this infusion funds really impacts outcomes, create new opportunities, and has the potential to elevate the role and profile of the STAC. Thus, it is important for us to pay attention to these things and offer commentary and direction if we can and it will be one of the last chances that members get to do this in the context of this five-year plan. With that in mind, we can talk more specifically about the actions.

In my compartmentalization of the nine actions listed as "priority", they essentially fell under three themes:

- Develop maps of current and future conditions for all sorts of species,
- Develop strategies to protect, restore, and enhance a wide range of natural features, and
- Facilitate ecosystem management in the integrative sense and do that by way of coordinating various monitoring and planning among the partners.

Would any members care to share their submitted comments with this committee?

Cough: On the first page, regarding the series of assessing the impact of target ecosystem threats:

- Reinforce the importance of having these actions be actionable and I having an EPA background that means here's some information: what decisions or what specific actions are taken because of that information that wouldn't have happened otherwise. The greatest value of information.
- Indicate specifically whose resource management decisions will be improved.

- Under improving projections of climate-change impacts, be more specific about the impacts (perhaps at the work plan stage).

Under wastewater management, pleased to see work with the Division of Water Infrastructure on improving wastewater infrastructure.

Suggest that the “C” series should be a priority, the strategies facilitating hydrologic restoration. Floodplains and streams stood out as broad scale areas where we can make a difference.

Currin: Folks may be familiar with the organization “South Atlantic Saltmarsh Initiative” (SASMI). When I read through APNEP’s CCMP legacy actions, I kept thinking how to narrow this down because it is so comprehensive. Perhaps there is some synergy opportunities between SASMI and APNEP, including mapping and protecting migration space. Also, the most immediate need are the impacts from rapid coastal development, such as water quality.

Angermeier: I wonder if maybe the APNEP proposal process is where those opportunities are made evident, and projects are selected that best meets APNEP criteria.

Currin: Agree. There are opportunities where APNEP can be a leader and address issues that are not receiving attention, and opportunities to build synergies with others on issues where there is attention.

Dame: Agree with Carolyn’s comments on coastal development. Similar concerns about the Currituck Sound area, where the concerns including water quality and unlike other areas there is not a lot of water quality testing. Collaborating and identifying gaps, that a key if not the number one thing in my mind.

Crowell: The new CCMP will indicate primary partners under each action. APNEP is not trying to do things alone: it is important to be able to leverage both resources and funds to accomplish objectives.

Dame: Does SASMI address just saltmarsh, how far up the wetland salinity gradient to they go? Most our wetland areas are forested in freshwater.

Currin: SASMI addresses marsh migration, but they are particularly focused on preserving salt marsh habitat.

Cough: A great gap is the ability to connect the dots in the causal chain between human activities to ambient conditions to ecological impacts. APNEP’s funding of Nathan Hall’s research to link stressors to water clarity to SAV impacts an example of addressing such gaps.

Angermeier: In addition to feedback on draft legacy actions, we can also think about non-legacy actions, those that we might now recognize as important that were not on the radar a few years ago. This give the STAC the opportunity to be proactive in how we might influence APNEP.

Carpenter: I wish to address an issue that Paul Cough raised earlier, which might be helpful when reviewing these CCMP actions. The notion of the lack of specificity and explicit deliverables or outputs from these actions. The CCMP actions are not overly specific by design because it was recognized that some flexibility was necessary to develop project plans involving decisions on where in our vast program area and what specific actions need to be accomplished. That charge was the province of APNEP's implementation action teams, who each would be responsible for developing implementation plans for a handful of CCMP actions.

Crowell: While it was stated that members' feedback on the CCMP actions was desirable before next Monday's Leadership Council meeting, staff would still welcome comments by month's end.

Cough: What are the interfaces between APNEP's five-year CCMP and the North Carolina river basin plans, which influence what the loadings into the estuaries?

Crowell: Each of the river basin plans within APNEP's program area are scheduled for updates. We help provide information to the DWR planners that shape plan recommendations. They are probably the DWR group we had the most contact with after the DWR nutrient group.

Ellis: Those basin plans do reference APNEP's CCMP so there's a crosswalk both ways.

Crowell: APNEP is referencing basin plans, and the same crosswalk is occurring with the North Carolina Coastal Habitat Protection Plan (CHPP).

Dame: On the topic of aligning plans from other coordinating committees, such as multi-state, Virginia and North Carolina, how about fish passage actions?

Ellis: For the coordination committee of the Alosine Task Force, there is common interest in habitat access as well as habitat quality. Topics and a memorandum of understanding was developed between the two state agencies, so it is a focus point. APNEP doesn't have the capacity to deal with larger scale fish passage projects, but we do focus on smaller scale habitat projects.

Dame: It was suggested earlier that emerging contaminants were off the table because of expertise and capacity, yet at the last Alosine meeting that was a topic raised as one of the factors behind population declines, so just some food for thought.

Somers: Marine debris and microplastics were also mentioned as issues that APNEP has not been active before. There is work going on in the region, so it's still an opportunity to report on, it doesn't necessarily have to be led by APNEP, but there could be a way to partner. There is a lot of progress happening in the NOAA marine debris program, which did receive extra funding for derelict fishing gear removal and interception technologies. Also, I would hate to see

something like emerging contaminants get dropped. As staff knows, there's so many opportunities to report out and to get funding there must be a link to the CCMP.

Ellis: North Carolina Coastal Federation has been heavily engaged in marine debris and has tapped some of that funding. It's not that APNEP is not trying to enter the space or not trying to be part of the space, it's just that there are partners who already doing a lot of work for the region and so that might not be an area where we devote limited resources relative to other priorities. Other groups are already taking advantage of federal funding and making a difference in that space, but we do partner with Coastal Federation on many things. Their director is on our Leadership Council. We will continue to work with partners on that topic.

Somers: I'm not suggesting APNEP need to do additional work in that space, but in your partnering you could capture progress on those actions. Similarly, for microplastics, given the research revealing the potential risks by microplastics on fisheries.

Crowell: Leadership Council did provide guidance to ensure that APNEP with staff and funding develop actions where we have some type of control and priority. So for microplastics as an example, we still address those things through contaminants in the water column. Although it is not identified as a single item in an action, we are not out of the sandbox. Thank you all for this helpful input. It's all a long process.

Angermeier: Very good then. This is very helpful. Thanks everyone.

Discussion Topic: Gaps in STAC Expertise

Angermeier (see accompanying presentation): I wanted to re-visit the topic of gaps in STAC expertise that we addressed last summer. We made some progress, but it's been a bit like two steps forward and one step back. We do have several valuable recent additions to the STAC (Cough, Hallac, Walker), although we are facing near-term losses as well with Carolyn (Currin), plus Heather (Deck) moving to the APNEP Citizens Advisory Committee. We also anticipate that three or four members will be cycling off when their term ends in June. Furthermore, with the departure of Carolyn and Heather, we will have lost 40% of the Executive Board, which is particularly troubling for us co-chairs. Plus, we do not have technical leads for three of the monitoring and assessment teams and that hinders us as well. We have a list of possible candidates that goes back to early 2022, but not sure whether they are the right folks to approach. Strategically, criteria for candidates include needed expertise and organizational representation. The STAC is thin on state agency representation, especially from Virginia. And finally, a very large elephant in the room in my view is the almost embarrassing predominance of "old white guys". During recent Executive Board discussions was consideration of a recruitment tactic used by the Chesapeake Bay STAC, who sent an announcement requesting applicants for what they are calling "at large" members with particular expertise or interest. They look to folks to self-nominate, in contrast to relying on a network within the STAC

membership to identify candidates. Any kind of feedback on the strategy and tactics to go from here to shore up our membership needs are welcome.

Dame: The Chesapeake Bay solicitation model would be posing a burden to shuffle through the applicants but it will provide a wider range of backgrounds and interest, and potentially candidates that really want to serve and spend the time. We need bodies that are going to be active. Another option discussed in the past is the use of graduate students, a different category of member to work on specific issues with the assistance of a faculty advisor.

Cough: I suggest going with the Chesapeake Bay approach, then review it, and evaluate at an upcoming meeting.

Action Items

Angermeier: Perhaps an action item is to more clearly lay out what following the Chesapeake Bay model might look like for recruiting and learn more about how that would work operationally. At some point we obviously need to draft an actual announcement.

Dame: How does the Chesapeake Bay STAC distribute the announcement?

Carpenter: I happen to subscribe to their email distribution.

Somers: I'm the vice-chair of the Chesapeake Bay plastic pollution action team, and when looking for a nominee the announcement went through the Chesapeake state management board. The Chesapeake Bay program have formal processes in the sense they have a plan on how they share information.

Angermeier: I assume with can contact Leadership Council members Havens or Hershner, who can provide contacts to get more details.

Carpenter: It STAC leadership wants to customize the Chesapeake Bay model and get something out, we do have staff whose specialty is getting information out to the network, so to speak. While we're on the topic, I wish to introduce Ezekiel Snyder, APNEP's summer intern and it happens his contribution will be working on engagement strategies and such. Also, the agenda says the next meeting will be August 17. Your summer meeting will be moved to a later date, pending feedback from the co-chairs.

Closing Comments & Adjournment

Angermeier: Thanks to everyone for joining today. We made a good bit of progress and did have some good discussions, so this has been helpful.