

## **APNEP Scientific and Technical Advisory Committee**

University of North Carolina at Chapel Hill, Institute for Marine Sciences  
3431 Arendell Street, Morehead City, North Carolina 28557

### **Spring Meeting Notes, May 7, 2010**

**STAC Members Present:** Robin Dennis, Wilson Laney, Kirk Havens, Mike Piehler, David Mallinson, Joe Fridgen, Joel Fodrie, Enrique Reyes, Wayne Robarge, Larry Baldwin, Brian Boutin, Joe Rudek, Helena Mitasova, Robert Diaz, Mark Brinson, Tim Spruill, Laura Taylor, Toddi Steelman.

**Agency Science & Technical Liaisons:** Bill Swartley (NC-DENR-DFR)

**Guests & Invited Speakers:** Denice Wardrop (Pennsylvania State University), Scott Chappell (NC-DENR-DMF), Lindsay Dubbs (UNC-CH-IMS), Tony Reeve (UNC-CH)

**Staff Present:** Bill Crowell, Dean Carpenter, Lori Brinn, Chad Smith.

**Call to Order: Wilson Laney:** Wilson welcomed everyone at 10:00AM followed by introductions. Wilson acknowledged Tony Reeve, Chair of the APNEP Policy Board. Wilson asked if anyone had any changes or corrections to the minutes from the STAC winter meeting. Minutes were approved by consensus with no changes. There were no members of the public present to offer comments.

### **APNEP Update: Dean Carpenter and Bill Crowell**

- Dean briefed the STAC on the resignations and new members of the STAC. Resignations: Richard Anderson, Matt Flint, Robert Reed. New members: Tom Crawford, Aaron Moody, Toddi Steelman, Sylvia Terziotti, Jessica Whitehead.
- Dean also welcomed Toddi Steelman to her first STAC meeting and that she would be arriving shortly.
- Dean reminded the STAC that the terms for one-third of the members end each year on June 30. This year the terms for the following members will end: Diaz, Field, Fodrie, Hamilton, Kenworthy, Piehler, Pyne, Smith, Steelman, Stolte, Wadman. Inquiries of interest to serve a new term will be extended to STAC members in good standing. The STAC Executive Board terms also end June 30 on even years, so an inquiry of interest to serve as Co-Chairs will also be extended.
- Dean recognized Bill Swartley as an agency liaison who has been faithful in attendance. Dean also acknowledged Tony Reeve being here to facilitate dialog between the STAC and Policy Board. Dean also mentioned that beginning this year the Policy Board is now meeting more frequently (quarterly).
- Dean thanked members who provided news items. They have been compiled and will be posted on the SciTech area of the STAC website.
- Dean gave us an update on STAC-related activities. The STAC Board had their quarterly teleconference on February 22. The "Ecosystem-Based Management" (EBM) transition team (including STAC members Havens, Laney) met on February 25, March 31 (teleconference), and April 28. The Comprehensive Conservation Management Plan (CCMP) revision is also ongoing and a public-review draft is planned by year's end.
- Dean noted that the EPA Coastal Carolinas effort has new co-directors, Darryl Keith and Brenda Rashley (former director Deb Mangus remains engaged as well). They want to maintain dialog with APNEP staff on a monthly basis. Dean and Tim Spruill provided an April 8 briefing on APNEP to Holly Weyers, the new USGS NC Water Science Center Director.

- Dean noted that DENR's Secretary has proposed to move the Division of Natural Resource Planning & Conservation (including APNEP) into the Division of Soil and Water Conservation, effective July 1. Dean noted that the Policy Board will be addressing this topic at their spring meeting (May 13). Dean noted that STAC members will have the opportunity to share their thoughts with the Policy Board Chair, Tony Reevy, later in this meeting. In addition, Kirk will be attending the Policy Board meeting to represent the STAC.
- Bill Crowell noted that during his attendance at the national NEP Directors' meeting in late February, he announced that APNEP is incorporating EBM into its planning processes, and a number of the other directors have requested to be present for the signing ceremony of the new CCMP. EPA is pleased for APNEP's new direction.
- Tim noted that this estuary is only one of three (from the 28) that has not produced an assessment report since 2000. Tim stated that for those members who feel that they haven't been effective this is their chance to do so. This is the members' chance to serve the Albemarle-Pamlico system and to provide information to the state and the nation. Tim is hoping that this particular meeting will be a good forum for moving forward with the assessment, and the indicators and monitoring program.

**Indicator Development to Support Chesapeake Bay Program's Assessment Activities: Denice Wardrop** *\*note: presentations will be posted on the STAC area of the APNEP website. "Rough outlines" only are provided in these notes.*

- Denice opened her talk defining a cautionary tale and that it is never too early to align goals and monitoring. She stated that you can't manage what you don't monitor. She also mentioned that the Chesapeake Bay Program (CBP) had not been assessed for 25 years.
- Denice presented six steps in environmental management. She noted that she rarely sees an environmental program that successfully implemented all six steps.
- Denice talked about the Chesapeake Bay agreement, which was signed by the five state governors. Goals and objectives are within the agreement. The assessment program should match but after 25 years, both the monitoring program and program goals had diverged. So the question is how the two can be merged back together.
- The CBP-STAC agreed to design a process. They developed criteria in process design. The process is to identify the priority management endpoints in current goal attainment and decision-making. They should provide a basis to reexamine, and if necessary realign, the information needed to support decision-making.
- Kirk developed the process and listed criteria. The steps were: identify existing goals, identify existing monitoring programs, compare goals and monitoring programs to identify gaps, recruit a professional facilitator, and end with implementing program changes.
- Once the process was designed, the CBP-STAC began to lead stakeholders through it. Denice noted that CBP goals are eerily similar to those of APNEP. Denice noted they unpacked the management endpoints under each of the goals. They looked at the monitoring endpoints under Healthy Watersheds, Healthy Habitats, and Fishery Management Endpoints. They examined the monitoring which would be required.
- The CBP senior managers stated that the operation of the monitoring program in status quo was unacceptable. They decided that the most important thing for the next two years is the delisting of the tidal segments of the Bay and determining the effectiveness of management actions. After 25 years, they didn't know the answer. So they decided to focus on Goal 3, which is to protect and restore water quality.
- Denice identified their hindsights and insights. "Phase 1" identified partnership priorities in a consensus framework. Knowing who to ask is important. She also noted that there are concerns with freedom of resource allocation and that re-prioritization equals reallocation.

- Denice mentioned not to lose track of the different monitoring programs and to use the data. She mentioned that the CBP had ample data but there was no analysis and management [from the Watershed team].
- Denice also mentioned the importance of telling managers how to utilize the published management papers. Without proper handling and distribution, their efforts can go unnoticed [from the Optimization team].
- Denice mentioned that the Communications team documented multiple uses of monitoring data for communication. Communication priorities include: linking restoration activities to pollution reduction, identify success stories, identify struggling situations, look at smaller scale systems, and highlight long-term trends. A better job of such linking needs to be conducted.
- Denice reviewed the outcomes to date. Conversations between managers and scientists and regular interaction planning needs to take place. Focus should be on analysis and synthesis. Additional sources of data and partnering opportunities were identified.
- Denice went on to talk about “Phase II,” which provided a strategic roadmap for future investments and disinvestments, monitoring to meet priorities, misperception of where consensus was appropriate or possible, mismatch in maturity of tidal/watershed monitoring programs, and lack of value parameters.
- Denice ended with this message, “Don’t wait 25 years, it was an enlightening experience but frustrating.”

**Data Management and Needs in Support of North Carolina’s Coastal Habitat Protection Plan (CHPP): Scott Chappell** *\*note: presentations will be posted on the STAC area of the APNEP website. “Rough outlines” only are provided in these notes.*

- Wilson introduced Scott Chappell. Scott noted that NC-DMF Habitat Section Leader (his supervisor) Anne Deaton usually gives this presentation. He wished he had known about Denice’s presentation earlier since he could have meshed his presentation with hers.
- Scott noted that the Albemarle-Pamlico system is the second largest estuary on the east coast, behind Chesapeake Bay. The Fishery Reform Act of 1997 established the CHPP process. It was created for the “long-term enhancement of coastal fisheries associated with each habitat.” Scott explained the involved management agencies.
- Scott reviewed the CHPP timeline. The full new document will be presented to the North Carolina Commissions next week and the following week (MFC, EMC, WRC and CRC). There will be public meetings in June with incorporated changes in July. The new document, which will be smaller than the original 2005 document, is expected to be completed by year’s end.
- Approximately 50% of the text is new or reorganized information. There are new sections on sea level rise, climate change, invasive species, point sources, and endocrine disrupting chemicals.
- Scott noted there are six major accomplishments: interagency coordination/cooperation; storm water runoff management, habitat mapping, compliance monitoring, oyster reef restoration, and beach nourishment management.
- Scott continued his talk by reviewing the new CHPP document by chapters. The first chapter talked about the water column. Status and trends were discussed followed by accomplishments and priority needs.
- The following chapters that were discussed by Scott were: shell bottom, SAV, wetlands, soft bottom, and hard bottom. He addressed status and trends, accomplishments, and priority needs of each chapter.
- Scott reviewed Ecosystem Management and Strategic habitat Areas. There is a chapter devoted to this topic. Scott showed us the map which he has compiled from various sources. Scott noted that some of the colors were difficult to discern at the scale projected. The SAV and shell bottom maps were incomplete.

- Scott noted that ecosystem services mapping will focus on multiple services. Ecosystem management is clearly needed where multiple habitat functions overlap. Scott noted that many of the threats are not habitat specific. They have provided a table which shows the level of impact on each habitat from a particular threat. This table is keyed to various chapters.
- Scott reviewed the Strategic Habitat Area (SHA) assessment approach. Scott showed the map which represents an assembly of all the alterations done to the habitat. Scott reviewed the process used for developing the map and designating SHAs. He showed the map of SHA nominations; how the designations are being used is not exactly clear. The data which support the SHA assessments will be provided to permitting agencies to help evaluate impacts from any proposed human alterations.
- The CHPP has four goals. “Goal 1” is to improve effectiveness of existing rules and programs for protecting coastal fish habitats. There are multiple strategies under each goal. “Goal 2” is to identify, designate and protect strategic habitat areas. “Goal 3” is to enhance habitat and protect it from physical impacts. “Goal 4” is to enhance and protect water quality.
- Scott ended his talk by acknowledging the CHPP team members.

**Working Lunch Discussion: Activities for Consideration in the 2010-2012 STAC Action Plan.**

*Led by Wilson Laney.*

- STAC members took a five-minute break and continued their discussion during lunch.
- The discussion focused on candidate activities and products to be included in the revised STAC two-year action plan. Discussion topics included the National Estuary Program’s 2009 implementation review and APNEP monitoring strategies (assessment topics would be addressed in the next meeting agenda item). The recommendations from this discussion will be considered when the STAC Executive Board drafts the new plan.
- Following the discussion, Dean requested that STAC members join him outside to take the annual group photo.

**Committee Discussion: APNEP 2010 Regional Ecosystem Assessment.**

*Led by Denice Wardrop.*

- Tim noted that members need to discuss products of great urgency which are expected by EPA.
- One is the “State of the Sounds” report. The last one done for the Albemarle-Pamlico was in 1991. The second one is the “Indicator and Monitoring Plan.” The third one is the CCMP. Tim noted that the goal for today’s meeting is to come up with approaches and possibilities. Tim noted that he had offered to members how the STAC could help accomplish this in 2010 (May 3 email). Tim indicated that Denice will facilitate a discussion of a process to achieve these reports.
- Denice asked if APNEP wants to include status (for goal areas); changes/trends (define time frame); and effect of management actions. Bill Crowell agreed that those topics should be included. The new CCMP has three goal areas: Waters, Natural Communities, and Stewardship.
- There was further discussion on whether members should go back and look at the 1991 APES assessment and update the status of the indicators assessed in that report. It was agreed that they should at least look at those to the extent that they fall within the new CCMP goals areas.
- Denice suggested that APNEP format the document in a tabular form, with indicators, and link them to management actions.
- Dean suggested in this initial assessment that APNEP not address the effect of past management actions (diagnosis). He envisioned only status and trends would be addressed in 2010.
- Kirk asked if anyone had looked at the 1991 document and removed the indicators that were no

longer relevant. Dean noted that during indicator development former STAC member Steve Smutko had extracted indicators from the original CCMP for reference but the 1991 status and trends report wasn't considered.

- Denice asked if APNEP wanted to use a format of: Status, Trends, Diagnostics, and Effect of Management Action. She indicated that all of these should go into a monitoring plan but noted that Dean proposed starting with "Status and Trends" in 2010; start addressing "Diagnostics" in 2011; and "Forecasting," along with "Effect of Management Action," in 2012 and beyond. Dean noted that the original concept was that the APNEP Management Advisory Committee would address indicators and monitoring strategies for management actions.
- Tim indicated that he wouldn't mind going through the exercise of putting down some of the topics that are to be included in the assessment document. Tim also noted that he would like to walk away from today's meeting with a better idea of the report format.
- Dean noted that APNEP has six monitoring & assessment teams working on the indicators: Living Aquatic Resources, Water Resources, Wetland Resources, Terrestrial Resources, Air Resources, and Human Dimensions. Dean suggested that these teams be asked to complete their monitoring proposal exercises by June 1<sup>st</sup>. The groups should then reconvene, and based on the existing data documented for each indicator they decide on which indicators they want to include in the document.
- Bill Crowell noted that APNEP will have three goal areas and broad priorities within them. Bill drew a matrix on the board to illustrate his point. For water, for example, you may want to consider nutrients, toxins, and other parameters. APNEP needs to consider something being monitored which will be of interest, such as dissolved oxygen, nutrients (e.g., phosphorus), and so forth.
- Robin suggested that if there aren't too many, members need to see the goals under each of the three broad categories. Until they do that, it is too broad and amorphous. Bill indicated that they have them on paper and staff could read them or project them on the screen. Dean read the draft goals to be presented to the Policy Board next week for approval.
- Wilson stated that he felt the most simple and straightforward approach to creating a new assessment, was to take the 1991 document, compare the indicators in it with those on the new list, then begin to relate the relevant ones to the new CCMP goals and objectives. Robin felt that APNEP should aim more toward the new goals and not worry about the 1991 document so much.
- Dean explained that under each sub-goal, there would be assessment, planning, restoration, and monitoring objectives. APNEP staff has been looking at various partner strategic plans and pulling them into each of the four subcategories. Out of that process, management objectives will arise. Lori stated that is how they will identify priority species.
- Dean noted that if the barrier islands were a system APNEP wanted to track, then APNEP can assess it and perhaps tie it to climate changes or other anthropogenic effects. It was noted that the assessment needs to include awareness since the system is dynamic. Denice agreed that was a good point. She noted that APNEP needs to define the list of "sacred" indicators. There has to be an identification of metrics that do not change.
- Denice confirmed that the sub-goal will be addressed by the Policy Board the following week. She asked if the next action would be for the six resource teams to identify the indicators which would be reported in the assessment. Denice suggested that APNEP should categorize indicators into core, those which are responsive to the goals, and "others."
- Joe asked if the indicator mapping was to be completed by the first of June. Dean stated that he envisioned APNEP would compile a list of candidate indicators which are presently being monitored and then use the data to prepare the assessment. To make it tractable in a short time, he was recommending a report which addresses individual indicators but avoiding addressing system interactions.
- Mike asked how far away APNEP is from the monitoring proposals being done. Dean indicated

that different teams were at different levels of completion. The critical piece of information is to complete the portion of the monitoring proposal template which addresses “Existing Monitoring”.

- Tim asked if these topics would correlate with the CCMP. Dean advised the topics under each goal would become the main chapters of the CCMP.
- Joe clarified that the meeting has achieved the desired outcome. Dean suggested that the STAC Executive Board take a shot at writing up what was decided today.
- Wilson asked Tim to clarify more on the format. Tim stated the basic approach would be to plug each of the indicators from the six groups into the new CCMP goals and discuss the status of each.
- Tony noted that 25 of the NEPs have done technical assessments. He wondered if the STAC might pick one or two of these assessments to use as an example or template. Tim stated that is what he originally had in mind but this is a different approach.
- Robert noted that the “State of the Bay” reports were written for the stewardship audience and not for the scientists. Tim stated that is the target group for this report. Tony noted that he happened to have a “State of the Bay” report with him. He asked when the draft monitoring plan would be done and if the draft CCMP was to be completed by June 30, 2011.
- Dean stated the assessment was to come out by December of this year. Bill had a timeline prepared for completion. The monitoring strategy should be out after the CCMP management actions are improved. This list of actions will be taken to the Policy Board next week.

### **APNEP Action Plans to be completed by the STAC Summer Meeting**

*Led by Wilson Laney*

- Wilson switched the discussion topic towards the relocation of APNEP and where it might be the most effective.
- Bill Crowell reviewed the history of the program’s location. In early 2002 APNEP was within a Unit of the NC Division of Water Quality. In June 2002 the program was attached to the Office of Conservation and Community Affairs, which lies within the Office of the DENR Secretary. In December 2007 APNEP was moved to the Natural Resources Planning and Conservation Division. The current proposal is that APNEP will be a branch within the Division of Conservation (former Divisions of Soil and Water, and Natural Resources Planning and Conservation).
- Joe asked how the 2007 move affected the program. Bill explained the effects and discussed possible actions. Wilson noted that members should discuss their thoughts regarding where APNEP should be located for optimal exposure, effectiveness, and impact. Another possible action would be to send a letter to either the Policy Board, or the DENR Secretary, regarding this issue.
- Joe suggested that members should restrict their comments towards the STAC’s role, which is scientific and technical advice. Wilson felt that the STAC could comment on anything it felt would adversely affect the effectiveness of the program.
- Wilson asked for STAC input regarding where they felt APNEP should be located to maximize effectiveness. Potential locations outside DENR could be NC Sea Grant, Water Resources Research Institute (WRRI), or UNC Chapel Hill (Institute of Environment). Robin and Tim felt that DENR was the appropriate location but that APNEP needed to be attached to the Office of the Secretary.
- Bill noted that APNEP is not the only program being shuffled with DENR.

The summer STAC meeting will be held on Thursday, August 5, 2010 at the Pitt County Office Complex.

**The meeting adjourned at 3:20PM.**