



Policy Board Meeting
Albemarle-Pamlico National Estuary Partnership
April 29, 2016
10:00 am –3:00 pm
East Carolina University, Greenville Centre,
2200 Charles Boulevard, Greenville, North Carolina 27858

DRAFT MEETING NOTES

Policy Board Members Present: Tom Allen, Wilson Laney, Todd Miller, Carl Hershner, JoAnn Benante, Holly White, Mac Gibbs, Kirk Havens (VIMS, via phone), Susan White (UNC-Sea Grant and NC WRRRI, via phone)

APNEP Staff Present: Bill Crowell, Dean Carpenter, Jimmy Johnson, Coley Hughes, Stacey Feken, and Katia Griffin-Jakymec.

Guests: Rob Howard (ECU)

10:00 a.m. Call to Order Dr. Tom Allen, Policy Board Chair

Tom convened the meeting.

Welcome & Introductions

Everyone did introductions, per Tom's request (see list above).

Review/Approval of Agenda (*Action Item*)

Bill Crowell asked for any changes to the agenda. There were several additions. Wilson asked that Bill brief the board on the status of the Governors' South Atlantic Alliance.

10:15 a.m. Public Comments

There were no members of the public present, so there were no public comments.

10:30 a.m. Adoption of Policy Board Meeting Notes (*Action Item*)

The notes from all the previous meetings were approved as written.

Joint PB/STAC Meeting July 2015

Approved.

PB Conference Call December 2015

Approved.

PB Conference Call March 2016

Approved.

10:12 a.m. Director's Report Dr. Bill Crowell, Director

Bill noted that the meeting venue had been changed to Greenville, from Raleigh. He noted that Tom Reeder would not be joining us as originally planned. He said that APNEP was settling into its new structure in the NC Department of Environmental Quality (NCDEQ) Division of Water Resources (DWR) and noted that there are some positives associated with being moved under DWR. While items go through Tom Fransen and Jay Zimmerman for review and briefing, they recognize that APNEP is different, and that the Policy Board is the entity that directs the program. Also, the staff all have their own offices now as opposed to being in cubicles, which is good since many of them spend so much time on the telephone.

Bill noted that change in DEQ is continuing. The Louis Daniel, Director of the NC Division of Marine Fisheries (NCDMF,) resigned and Braxton Davis has been appointed as Director of the DMF, along with his existing role as Director of the NC Division of Coastal Management. (NCDCM). Bill noted that APNEP does have finishing up study with RTI and NCDMF, a [cost-benefit analysis of the shellfish restoration program](#) and that the final report is available on the APNEP [website](#). The report highlights that for every dollar spent on oyster restoration, the state receives four dollars in return. He also noted that Todd Miller served on the steering committee that guided production of the report.

Additionally, APNEP contracted with RTI to produce an [economic valuation](#) report of resources in the program area, which was undergoing review at the time of the board meeting. All the reports that originate in NCDEQ and are published or submitted to the legislature, must go through NCDEQ review, prior to their release. Bill felt that APNEP should not be subject to this provision; however, APNEP has agreed to provide a "courtesy review" to the Department. Bill noted that staff in the Department now must go through a lot more preparation prior to any commission meetings, since all their presentations and other materials should be reviewed. An incident happened recently where a report was posted by another section without prior review, which caused a great deal of concern. However, the cost benefit and economic value studies that APNEP has shared reflects positive information for the state and the Department, and there is interest within DEQ in sharing the report with the legislature.

Bill noted that the state Legislature is in town for the short session. Senate Bill 789, which sounds mundane in that it deals with oversight of contracts, could affect APNEP's ability to contract in a timely manner. Another Bill, Senate Bill 794, reduces reporting requirements, like those for the CHPP or the State of the Environment Report. The draft of the bill stated that the General Assembly would no longer require a State of the Environment Report. Bill noted that for APNEP, not producing such a report with monitoring information would really disrupt our Ecosystem Based Management approach and the adaptive management cycle, so this is of concern. APNEP plans to continue producing its own report on the state of the sounds or ecosystem.

Bill asked Wilson to give an update on the Governors' South Atlantic Alliance, as we learned that it may be dissolving. Wilson talked to Roger Pugliese of the SAFMC, who said it is anticipated that the GSAA as presently constituted would be disbanded. It is likely that North Carolina will drop out and other Governor's will follow suit, there is speculation regarding oil and gas leases as part of the reason. They are not sure what will happen to the staff such as Christine Cherry. There is supposed to be a regional ocean planning body, he is not sure if it will continue. Todd Miller said the NCCF had collaborated with them on a series of workshops including one on Living Shoreline with EPA funding but understood they would run out of money by the end of the year. He indicated that there is a Transition Team, and Braxton Davis is going to chair it.

Bill said he had been working with NCDEQ legal counsel on the APNEP Delegation of Authority and is working to explain APNEP to them. As discussed, DWR understands but DEQ leadership is still trying to figure out the structure.

Bill introduced new APNEP staff. Dr. Coley Hughes was originally hired as the APNEP Project Manager late last year, but she applied and interviewed for the Ecosystem Analyst position and was hired into that position. Coley earned here PhD at ECU and her expertise is in coastal ecology. Stacey Feken has been hired into the Policy and Engagement Manager position. Her background is in marine sciences and she moved from Florida where she worked on Everglades restoration and water resource issues. Katia has moved from her AmeriCorps position into a temporary Education and Outreach Assistant position which is funded through the end of the fiscal year.

Bill noted that since the staff have been hired, they are now activating more of the Action Teams which will be responsible for CCMP implementation. Bill indicated that Dean will give us an overview on the teams later, but Bill will be contacting members to see if they still want to continue serving as liaisons to the teams to which they were assigned.

Bill indicated that we would be reviewing the Draft Work Plan later in the meeting, we have the same amount of funds as last year.

Congress passed and reauthorized Section 320 of the Clean Water Act, which funds the NEP. One subject of discussion on the floor of Congress was that 85 percent of the funding for the NEPs has to be passed on to the NEPs. A portion of the funding will be pulled out of the line item and withheld for competitive proposals and special projects. Bill noted that came about in part due to the situation with the Indian River Lagoon NEP. The bill was on the President's desk for signature.

Bill noted that we had submitted some proposals to EPA, trying to secure additional funding for our monitoring efforts. Rhonda Evans had worked with staff and headquarters on those proposals. We don't know what their status is now.

Bill noted that APNEP is scheduled for its next review in 2018, and will be on a five-year basis thereafter.

Bill noted that the South Atlantic Landscape Conservation Cooperative (SALCC) has a new Coordinator, Mallory Martin, who had retired from the NC Wildlife Resources Commission. Bill and Mallory have talked and he may ask him to give a presentation to the board.

The EPA Senior Policy Advisor for Water, Ellen Gilinsky, has expressed interest in coming down and visiting the APNEP. Bill noted that he and JoAnn would like for her to meet with the STAC and the Policy Board. Bill asked if there was anything that we would like for her to see. He mentioned specifically that he would like her to see some of the restoration projects that the North Carolina Coastal Federation and the Nature Conservancy are involved in, as well as some of the oyster reef projects. He noted that she will likely come in September.

Carl Hershner indicated that he had some additional ideas. He said knows Ellen well from her time in Virginia as head of the Department of Environmental Quality. He suggested that it would be good to discuss with her what needs to happen in North Carolina's government structure to make progress on the implementation of coastal BMPs. She is uniquely positioned within EPA to guide funding and resources to various programs.

Bill noted that there is another draft bill, which would require NCDEQ to do a study of its nutrient management strategy. Tom Reeder made a presentation to the legislature in December, which resulted in the study. We will see where that goes.

Bill noted that Tom Reeder was absent, as he is meeting this morning with the Department about nutrient criteria.

Tom Allen asked if APNEP has drawn many benchmarks out of the NC State of the Environment Report. Bill stated that we had not. He noted that past reports have focused mostly on the number of permits processed and other metrics. Dean indicated that back in the 1980's, under Governor Martin, the report was a rigorous attempt to really report on the State of the Environment, but in recent history, the report has been more of a "coffee-table" type of book, certainly not anything like the scale we are trying to achieve with the APNEP Ecosystem Assessment.

Tom asked for any additional comments.

Tom noted that Bill had mentioned press releases and asked if there is a new process for the releases in addition to the report.

Bill indicated that Jimmy will report on the CHPP and can address the new process. The report was reviewed prior to the press release. As far as Bill knows, the Department did not require any changes to the CHPP, but the Commissions did want some changes. Jimmy will address those. Bill explained that Jimmy had some travel challenges last evening, so had to drive here from Charlotte, and only had two hours sleep.

10:38 a.m. [Coastal Habitat Protection Plan \(CHPP\) Update Mr. Jimmy Johnson](#)

Jimmy explained the history of the CHPP, which originated from the Fisheries Reform Act of 1997. It is now in its third review. The desire is to shorten it and make it more user-friendly. The committee responsible for the new CHPP has six new Commissioners on it. Last August, the new CHPP was ready to roll, and had been cut down to 400+ pages. The Steering Committee has created a “chippet” of some 30 pages, basically an Executive Summary, which will be distributed to the public, along with a Source Document. Jimmy noted that they have asked for an extension to get the documents before the three Commissions who need to approve the documents. The Coastal Resources Commission, and the Marine Fisheries Commission, both approved the documents. One commissioner on the Environmental Management Commission requested several editorial changes, which are going to be sent now to a conference committee. The membership of that conference committee is partially the same as the Steering Committee. The Conference Committee is going to meet this Monday, to consider all the edits. The EMC member took exception to the word “voluntary” relative to BMPs. He considers that a political term. There were some places where “NCDENR” was still in the document, that needed to be changed to NCDEQ, and those changes were made. He also wanted to see “dredging” for navigational purposes, be distinguished from “dredging” as a harvest method. With three exceptions, all the changes are in the Source Document. They added some language to explain the change from NCDENR to NCDEQ. Anne Deaton was also able to go in and change all the logo graphics, to the new NCDEQ logo. Jimmy noted that the new 2015 CHPP has designated priority issues. One of them is oyster restoration. The second is living shorelines. The third is sedimentation and erosion control. The fourth is metrics, seeking consistency in the way things are measured. Jimmy noted that redundancies in the document were removed. Since each of the six habitat chapters had “threats” sections, they pulled all of those out and put them in one “threats” chapter. Jimmy indicated that he hopes things will go very smoothly on Monday. The commissioner who wanted the changes has indicated that he is pleased with the changes. Once the Conference Committee signs off, it goes back to the Department for Review. Once that is complete, it will go to the EMC and the Joint Commission for Rules Review, and once approved by them, they will begin working on implementation plans for the CHPP. Jimmy noted that they are going to recommend changing the date on the CHPP to 2016, so that will buy us another year and a half until the next review. Jimmy noted that NCDMF has the lead for the review, but they worked very closely with the other divisions, so this one more than the past versions is more of a true departmental document.

Wilson noted that ASMFC Habitat Committee had done the same thing with the “threats” discussion in several of their source documents. He and Jimmy both serve on the committee.

Carl asked about the next steps and the implementation plan. Jimmy explained that they would develop a two-year implementation plan, which would go through review, and then be implemented. Carl asked who monitors the implementation plan. Jimmy said in the past, they had provided annual reports, but with this new legislation, such reports are no longer required. Jimmy noted that all the past reports are in a database. He noted that it would be interesting to see what the CHPP implementation had resulted in, and what had occurred to undo some of the things that had resulted from CHPP.

Tom asked where the CHPP aligned with our CCMP and action teams. Bill and Jimmy noted that the CCMP and CHPP implementation were pretty closely aligned, which was done purposely. The CHPP is the likely the most coordinated and aligned with the CCMP out of the 50 published plans that were reviewed during CCMP development.

Tom asked about further changes with DMF and CM. Jimmy noted they have not seen many yet, but there were several positions that have been rather cross-bred between NCDMF, and NCDCM, such as Kevin Hart’s and Shane Staple’s positions, which could be beneficial in the long run.

Carl noted that when we were working to transition to EBM, we had looked at outside programs. He suggested that it would be good to look at the CCMP actions, and what was assigned to APNEP, and what everyone else was supposed to do, and how things have gone. We need an analysis of the outcomes, reporting progress, then we can evaluate what APNEP can contribute moving forward.

Jimmy noted that APNEP has been highly featured in the past annual reports. Some of that has been since he writes the reports. Carl noted that it is good to highlight that to demonstrate what APNEP can bring to the table to the legislature and to USEPA and other NEPs.

Tom noted that a lot of the priority issues do jive with EBM, and if they are persistent from one five-year period to the next, that would be a good thing.

Bill noted that a report that was pulled from the last EMC meeting, a report on the effectiveness of buffers, which is a CCMP element, so it will be interesting to see how that review turns out. DWR is the lead on that effort.

Jimmy noted it will be interesting to see how the changes in membership on committees may change the focus of some of the groups. He knew where Steve Tedder stood, but doesn't know where some of the new members stand.

Bill noted that typically during the spring board meeting the major task was reviewing the workplan. He said Coley will be highlighting some of the actions from last year's plan. Everything is in the document. Coley is going to do a sort of "best of" for us. We would also mention the "worst of" as well.

10:58 a.m. 2015-16 Partnership Activities Overview Dr. Coley Hughes

Coley introduced herself and noted that she has had some limited interactions with the folks doing the grants thus far, but she would refer to Bill and Dean who have had more contact with the contractors. She noted that her presentation was structured around the five CCMP components: identify, protect, restore, engage and monitor.

[Economic Valuation of the Albemarle-Pamlico Watershed](#): This study was performed by the Research Triangle Institute (RTI) in response to a request for proposals. It is the first report to put a dollar figure on the value of both land and water benefits in the region. Carl was on the steering committee.

[Economic Analysis of Restoration and Enhancement of Shellfish Habitat and Oyster Propagation in NC](#): Coley noted that Todd Miller is the PB member on the committee for this study.

Sea Grant/APNEP Fellowship: Risky Business: consumption of self-caught in Tyrrell County, North Carolina. This study was completed by Liz Brown Pickering of ECU. Coley noted that the partnership with UNC-Sea Grant has been extended for the fellowship. Carl asked if this report had to go through Departmental review. Bill didn't think so.

Tom asked where the links were for the documents. Bill noted that APNEP still receives calls regarding old APES reports, so they do try to provide everything on the web so it is accessible (See [APNEP Research and Policy Reports](#)). Katia explained the economic reports were highlighted on the [front page](#) as well.

Jimmy noted that there is some economic work done by ASMFC, regarding oyster reef restoration, and their values came out very similar to those of the APNEP report.

Bill noted that the oyster study took a good bit of time, and required NCDMF time working with RTI as well. Dee Lupton indicated that NCDMF is very pleased with the report. Bill noted that the legislature is very interested in that report as well and wanted to see it before it was complete, but they managed to withhold it until RTI had finished.

Carl noted that APNEP got a real deal and our money's worth out of it, since we didn't have a lot of funding. He noted that these studies are just a first step. Bill noted that one big issue is that there has been little NC-specific, or Albemarle-Pamlico specific, information. There needs to be more localized work. This is a good area for inquiry, perhaps by NC Sea Grant and WRRRI as well. Bill noted that the legislature is very interested in this topic. Bill noted that we are trying to protect livelihoods, the economy and the environment, aquatic and terrestrial aspects. There is opportunity for further investigation in the future.

Wilson agreed and noted that he had asked a question during RTI's webinar about the offshore fisheries being included, and they were partially, but perhaps not completely. He mentioned the ACC statistics program may have some data. He agrees that additional information should be pulled together, economic studies are rarely complete. Also, the question was asked about the value of living shorelines, and natural shorelines, versus bulkhead, as RTI indicated that they had not looked at that aspect.

Dean noted that the intent of this study was to use existing information and get something out that would be very useful. It was a first cut and there certainly is an opportunity for further investigation.

Carl said that based on the valuation studies he is familiar with, we received a good deal, RTI has experience and did a good job preparing based on the available information. There were limitations but there are opportunities to expand. He expects an impact in the General Assembly, it could be used as the basis for a successful funding expansion.

Wilson noted that he felt that there is an opportunity here for us to collaborate with the ASMFC and the SAFMC on further economic studies.

Mac noted that he felt that the numbers seemed really small, for the area, although the relationship seems to be there. Bill agreed that the RTI felt that the numbers were low as well, but those are the ones that they can defend. Dean and Katia explained that the numbers reflect the net return/profits, and are not the gross expenditures. Mac stated even with that explanation, the numbers still seem low to him. Mac said typically, the return to farmers is around six percent. Mac asked how many counties they looked at; Dean indicated he thought it was 36. Mac noted that he had to do annual reports for Hyde County, and these just seem low to him. He believes that the relationship is right through, and agreed with Wilson that more study is warranted. He noted that it will take a lot more resources to do a more thorough study.

Bill noted that there were a lot of caveats that were provided by the economists, but it is a good start and shows there is value in us doing more in this area.

Wilson noted that the Council has an SSC, which has a socio-economic capability, and the ASMFC has the CESS, so he felt that there is tremendous potential for future collaboration to conduct a more in-depth pilot study, with the APNEP as a focal area, which could then serve as a pilot for other studies. Wilson suggested that we might want to ask Dr. Doug Wakeman of Meredith College to review the report and make suggestions for future studies. He agrees with Carl that we received a good deal. He noted the focus had been on biology/natural resources and we could add the cultural dimension as well.

Bill mentioned we may also want to involve the SALCC in further discussions. H

Dean noted that he and Wilson had discussed the fact in the past, that the NC sounds are important to more than just NC, since they are used as nursery areas for many fisheries all along the Atlantic seaboard, and this value was not considered in the report.

Bill believes it will be of interest to EPA headquarters as well, and will be of value to the other NEPs. He hopes that there may be additional funding from EPA at some point.

Todd and Mac noted that some of the numbers on the slides needed to be reexamined, since they don't think that the slide states them correctly, such as the total rental value and willingness to pay, it is challenging to

explain. Todd noted that the agricultural and timber numbers on the slide are different for those two categories. Coley indicated that she was more worried about the numbers in the press release being correct.

Carl noted that the numbers that they derived in this report, were not intended to yield maximum values. The numbers are valid, given the methodology used. He noted that we could go back to George and ask him for assistance in crafting the press release, but further work would take a lot more funding. Carl noted that we should be careful in throwing out big numbers, because we know they aren't usually correct. We need to explain how these numbers, fit in with all the others. Carl felt that they didn't make any mistakes in the way they went about it.

Wilson asked if DMF had reviewed the report, and Dean said they were on the steering committee.

Mac stated that he is concerned about the value of fishing being listed as only \$20 million, could cause the legislators to be less enthusiastic about providing more funding to the responsible agency. Mac wanted to be sure that the numbers were not misinterpreted. Carl noted that the \$20-million-dollar figure was profit to the fishermen. He noted there are other aspects that may not be including, such as charter boat operations, and the tourism aspect including duck hunting, land rents, etc. depending on how you report it, it could go up and even be double based on his knowledge in Hyde County. Wilson noted that just needs to be crystal clear; but even if it is made crystal clear, that still doesn't mean it will be properly reported or interpreted.

Tom noted that the oyster restoration sector report might be good to demonstrate a particular issue. There are strategic issues and policy implication issues.

Carl believes the numbers are appropriate for the methods used, based on the natural capital of the area. He noted that a key point is that the area has tremendous value, and that it needs to be kept high-quality, to keep the value up.

Coley noted that the \$4.3 billion-dollar return (values to households) needs to be further explained as well.

Katia, Bill and Carl suggested that assistance from George be sought about how the numbers are reported. Carl noted again that these numbers can then be used to generate additional numbers, by using multipliers.

Bill gave an example from previous sessions of the legislature, when they were having discussions about river herring restoration, and funding needed from the legislature. At the time, the value of the resource was far less, than what was being proposed for funding.

Coley returned to the presentation of projects. Protection: Coley noted Jimmy's work with the latest iteration of the CHPP, which Jimmy had already presented. There is a State Parks Habitat Enhancement project, to plant trees at Great Dismal Swamp State Park, where Atlantic White Cedar trees are being planted to replace burned areas. Bill noted that the first iteration of this project done last year won an award. APNEP purchases the trees, and a local volunteer group organizes the event. The Shad in the Classroom project also continues. This gives students hands-on experience with raising American Shad in the classroom. The students also get to experience electrofishing. This is a collaborative project with the NC Museum of Natural Sciences and USFWS. The partners have managed to raise a lot of matching funding.

Wilson noted that he was pleased to report that the USFWS Regional Fish and Aquatic Conservation Program had contributed \$5,000 to the program this year. Wilson and other USFWS staff assist with egg deliveries, and fry releases.

Engage: Coley reported on the Teacher Institutes, which provide training for teachers regarding water quality and other issues, and provide lesson plans. This is done with UNC and NCCF. Teacher workshops are held in collaboration with project WET (Water Education for Teachers), and the participants then go out and teach other teachers.

Monitoring: Coley noted that APNEP has an ongoing SAV mapping and monitoring project. ECU is also a partner in this project, monitoring using underwater video. Dean has worked with NCDOT to have aerial photography flown, on a five-year basis. The 2012-2014 survey map will be coming out this fall. Coley showed a video about the program.

The information derived from the SAV work is used to map the SAV. Dean noted that we can't afford to conduct annual surveys, but we are trying to do it every five years. We are establishing sentinel sites, which can be monitored on the ground, on an annual basis. Ten stations have been established in Albemarle Sound. We are establishing similar stations in the Tar-Pamlico and Neuse systems. It takes about a day to do an individual station. In the Albemarle, we are sampling in spring and fall to try to determine the optimal season for sampling. Logistics are still being worked out. This applies to the freshwater portions of the system, but we also intend to establish stations in the more saline sounds.

Bill noted that as we begin mapping SAV, there has been more interest in oyster/shellfish mariculture, and we have gotten the understanding that there is conflict between SAV and shellfish mariculture. There needs to be more dialogs between the two groups. If area is to be allocated for mariculture, we need to be able to say where it should occur, and where it shouldn't. It is good to be able to say where the SAV is located.

Todd noted that the nationwide and regional permits for aquaculture are being reviewed currently. The regional review was completed this week, but the national one is still open. Todd noted that Virginia has a different standard than NC. Carl indicated a lot of it is gone from their waters.

Bill noted that in drought years, we tend to see an expansion of SAV, in part due to lowered runoff and nutrient inputs.

Carl noted that in VA, they were trying to designate areas for aquaculture, which considered SAV, but their efforts were defeated due to opposition from the aquaculture industry, which considered their efforts government intervention.

Coley continued her review. The Neuse River Estuary Modeling and Monitoring Project is being done in collaboration with NCDWR and UNC-IMS. Bill noted that funding also came from the Lower Neuse River Basin Wastewater group.

Recreational Water Quality Monitoring: Coley noted that funds leveraged for this one is \$283,000. Dean explained that APNEP has stepped in on this one, to compensate for the funds returned by the state to USEPA. Bill noted that EPA had questioned the use of APNEP funding to cover this project.

Carl asked if there were any shellfish in Albemarle Sound. Wilson didn't believe there was much in the way of mollusks there, with the possible exception of Rangia. Todd and Mac confirmed that was the case, noting that oysters pretty much stopped at the Manns Harbor bridge. Todd noted that the funding for shellfish monitoring north of the Manns Harbor bridge was eliminated.

Bill noted that there are more sites monitored, than the ones shown on the map, which are just the ones which APNEP is monitoring. Mac noted that NCDMF does have some funds for shellfish monitoring, and Bill noted that they are doing the monitoring in Core and Bogue Sounds.

Coley noted the work that APNEP has done under the National Coastal Condition Assessment Sampling program. Bill elaborated that APNEP had secured some equipment, and the use of a state van. He noted that one side benefit was public outreach, when the teams came into boat ramps.

Coley asked for questions. She noted that she had not presented the entire list of projects that were done, but all of them are covered in the report.

Tom asked if this work would be repeated. Bill and Dean indicated that USEPA would be repeating the work in five years. Bill explained that EPA periodically does coastal condition assessments. But, their focus in

national, so there are usually not enough samples to provide statistically significant comparisons. That for the APNEP area, would require doubling the sample size. APNEP agreed to collect water quality and sediment samples, but not fish tissue samples. He hopes that we will be able to make some statement regarding the condition of our waters.

Carl asked what they are sampling. Dean replied they are using a very specific, rigorous protocol, and Bill noted it was very stringent. Todd noted it would be interesting to see the results. Tom asked if we would get the data from EPA. Dean indicated it would be provided, but it could likely be a while. Dean would like to see the information incorporated into our 2016-2017 assessment update. Hawaii was the only other state that increased the sampling effort to increase rigor. Dean noted that we have for a long period talked about the lack of monitoring in the sounds. He suggested perhaps we can have a subset of stations which are monitored on an annual basis. Hawaii does it on an annual basis.

Carl asked Dean if they participate in the National Wetland Inventory assessments. Dean noted that NCDEQ had pulled out of that effort, so we have been working with NCSU on that project. Carl and Kirk work with EPA to do this for Virginia. Carl noted that Kirk can tell Dean all about how it works. Dean noted that EPA has four monitoring components, Coastal Wetlands, Coastal Condition and Water Quality. This one is the one that replaced EMAP.

12:03 p.m. Bill noted to Kirk and Susan that he just realized that they didn't have the slides. He is sending the slides to them via e-mail, for Dean's presentation.

12:04 a.m. Implementation Action Teams Update Dr. Dean Carpenter

Dean noted that this is his third update on the Implementation Action Teams. He noted that this was borne from staff's attempt to portray the difficulty in achieving implementation. This presentation will highlight the progress being made in getting the teams up and running. The message in this presentation will be much brighter, in that we are moving forward with implementation.

Dean showed us the adaptive management cycle and noted that we are in the upper right-hand quadrant of the cycle. The CCMP came out in late 2012, and was based on four CCMP questions, and the fourth one is what is our strategy for addressing the threats. The strategies and actions are rather general and there are 58 of them in the CCMP, on a ten-year cycle. They are super-aggregated into five components, and aggregated into 15 CCMP objectives.

Dean gave us an example using 3b. Nutrients and pathogens do not harm species that depend on the waters. He showed us a slide with the outcomes, actions and teams assigned to each task.

Dean showed us the slide which shows the staff assignments for lead, and staff support. It showed the teams that were started during 2014 and 2015. Dean noted when we last met in March a little over a year ago, four teams had started, and two more began shortly thereafter. Six of the thirteen teams had been started.

The new graphic, picking up in March of 2016, shows that there was nearly no movement. This was because the small staff lacked capacity, and was concurred by the Policy Board. Bill was also serving only half-time during that interval. The decision was made that until APNEP had some staff capacity back, action would be deferred. Staff have now been hired, so they are moving forward. Meetings have been held in March and April, and more team meetings are scheduled.

Bill noted that Jimmy is also now full-time for APNEP. Prior to this, part of his time was allocated to Clean Water Management Trust Fund, as well.

Dean noted that the teams include members from various APNEP partners with expertise in each area. The hope is that the work aligns with their missions, and little extra work is involved. The team's schedules are not dictated by APNEP, but they do encourage and facilitate.

Todd asked what our thinking is about shorelines. Bill noted that they had decided to leave that one blank and ask Todd about how to proceed. Bill noted that there are multiple actions ongoing related to shorelines, but we haven't been doing them as a group. Bill noted that Todd, Aaron and Alexi attended a workshop on living shorelines in Jacksonville. We also had a workshop for contractors. They had problems getting the contractors to attend, so they videotaped the next one, so that contractors can view them on their own time.

Dean noted that staff had also asked STAC members to serve as liaisons with each of the teams, to make sure that there are ways to evaluate the actions.

Bill noted that this is the new table to which he referred. He or Stacey will follow up with board members to see which teams they would like to serve.

Dean indicated that once a quorum of teams has been established, they will then "boot up" the Implementation Committee.

Bill noted that we may have an Implementation Committee in November. Dean explained that the teams will elect their own leaders, which usually doesn't happen until they have had time to get to know each other. Dean noted that there is also some overlap among teams, regarding their missions. Bill noted that they want to make sure that the teams are populated by folks working in the geography, not just political appointees.

Dean noted that the STAC will be meeting two more times this year, and will be doing some technical integration regarding the teams.

Dean noted that the EPA staff person depicted in the van was Simona Platukyte. Rhonda Evans also had come up to assist with the sampling.

Tom asked the group to take ten-fifteen minutes to grab a lunch, then he will begin his presentation.

12:19 p.m. Working Lunch: [NC Coastal Atlas](#) Dr. Tom Allen

12:41 p.m. Tom noted that the NC Coastal Atlas is an idea that he had a few years ago. He noted that NC has a good GIS system, called NC One Map. The coastal atlas arose out of some work that he did while at UNC-Chapel Hill, and emulates some existing atlases in MD, VA and other states. He noted that he proposed the project to NOAA, and the Coastal Zone Management Program wound up funding the work. There is a Steering Committee, on which APNEP serves, along with NCDCM, NOAA, Sea Grant and some other groups, including the Coastal Studies Institute. He noted that they are approaching a crossroads of sorts, and he noted that Rob Howard has contributed to his presentation.

He explained why a coastal web atlas for NC was created. ICAN has a long definition that says what a coastal web atlas should provide: "...collections of digital maps and datasets with supplementary tables, illustrations and information that systematically illustrate the coast, oftentimes with cartographic and decision support tools, all of which are accessible via the Internet." The NC Atlas is described somewhat differently.

The Atlas provides maps, data and information; attempt to explain the coastal environment; and help with decision-making and discovery.

Personas developed from a UX study of the NC Coastal Atlas: coastal educator, coastal researcher, two more.

Tom showed us his map of the Atlas. The components are data, information and decisions.

One of their cornerstone features are thematic maps. Estuarine and Ocean shorelines; wetlands, habitat and threats; flood inundation vulnerability; dissymmetric population mapping; and others. They also include story maps.

They have over 100 layers in their data catalog. Many of these are not on the ECU server, but are pulled in from other sources. There are 12,000 miles of shoreline categorized. There is a name search function. There are swipe tools. Tom noted that there are some rapid changes occurring in our estuaries and you can measure them using the Atlas.

They added output capabilities last year, so that you can make your own maps and output them. In the future, you will be able to just provide a URL to someone for a map you have created.

This year, they are working on a coastal permitting application. The idea is that everyone involved in a permit application can see the same information. It also may make the permitting process more efficient, and enable more efficient decisions. Tom noted that Google Earth has some resolution issues, so this would address some of the concerns.

They have a geotagged bibliography, which includes a bibliography and depicts the location of research, as well as the documents. They are up to thousands of items.

They are also socially connected through Facebook and Twitter, and Google+. Tom noted that there is a synergy which comes from sharing each other's material, between groups such as APNEP, Sea Grant, and others.

Tom reviewed what is next. Atlas version 2.0 will be coming out this summer. It will have a guided tour to enable better use. It will support tablets and smartphones. It will enable the editing and sharing of maps and collaborating with friends and colleagues. You can share maps by sending a link via e-mail or social media. It will enable integration with ArcGIS online.

Tom noted that they have added this spring, the Charles Kuralt Trail, as part of a project to digitize some of the cultural resources of the area. The points on the trail are all mapped. Another one is the Sounds Discovery Trail, created by the Partnership for the Sounds. Historic markers are all mapped. They have added paddle trails and access points, for trails that are somewhat established and have good access. They added a new Scuppernong and Columbia Trails and Access map. Inland and Joint Waters are mapped to facilitate fishing. Boat access and marinas are available. The NC Boating Access Areas are all on the Atlas, along with marinas. Clicking on the locations will also provide associated information. Tom noted that the Atlas will note if facilities are private, and if they charge.

There is also a layer for Surf Spots. They have mapped most of the surf spots used on our coast, although Tom noted that he left a few secret ones out. They have included a URL for web cams and include a link to surf line forecasts. They also included kite- and wind-surfing spots.

A group of students volunteered last fall to produce a Coastal Wind Atlas. Jacob Twarog and Nick Lucchetti from ECU did that work. You can click on a station and pull up a wind rose for a given site.

Bike routes are in the Atlas, along with Hiking Trails. They are looking at crowdsourcing, as a future feature, in which personal GIS data will be harvested by the site.

One of the Story Maps is NC Land of Water: The Scuppernong Story. This one was assisted by Dr. Stan Riggs, and also employs LIDAR data, historic maps, and other information.

Recently, they worked with Niels Lindquist and Steve Fegley to create a salinity database. It is a huge database of historic salinity observations. They plan to work with them to publish this in the Atlas. It will include FerryMon data, which is an enormous volume of data. They are working to create filtering tools, and download and upload tools. Tom noted that salinity is a huge factor in many of the topics we discussed this morning. Tom noted that he felt that the Atlas will be very useful.

Wilson asked if they would consider expanding the salinity layer to offshore. He noted that he didn't see why it couldn't be expanded, but the researchers working on it focused on inshore.

Coley asked about beach access and campsite data. Tom indicated that they do have beach access sites, but not campsites yet, with some exceptions such as the Roanoke River platforms. They will provide all of the data they use to the NC1 database.

Tom noted the site is NCCOASTALATLAS.org.

Todd noted that the mapping of the estuarine shoreline was interesting to him, since they now say that we have over 12,000 miles of shoreline. Tom noted that they had estimated erosion rates for all of the coastal counties, but NCDCM had asked them to keep that off the Atlas. Tom noted that we certainly have erosional hotspots, which should be relevant to permitting. They had no problem with depicting historic shorelines. Tom noted that one area eroded 300 feet in one year, following a hurricane.

Mac asked why NCDCM would not want to have the erosion rate data available. Mac noted that he knows one site, where a man put a post in the corner of his property, and now it is 20 feet out in the water, and this is on a marsh-dominated shoreline. It bothers him that folks do not want to address erosion. Tom stated that he doesn't have an answer.

Tom noted that they put sea level rise projections from NOAA on the site. He had to re-name the data to "wetland migration potential" rather than calling it sea level rise. Tom noted that they have taken some measures "under the hood", to prevent some maps from drawing at a fine scale, for example looking at individual homes, as this information could be subject to misinterpretation. However, the information is available, people can contact Tom if they are interested.

Bill noted that Lindsay Smart had been working with APNEP on a decision support tool to look at sea level rise, and they are interested in seeing that work continue.

1:30 p.m. Discussion of [Draft Workplan](#) and Budget (*Action Item*) Dr. Tom Allen

Tom noted that the structure of the workplan stays the same every year. It goes in as part of our EPA grant application. Bill noted that the condensed way to review the plan is to look at the budget page 47. Several years ago, the PB asked that the previous year's budget be included, which is on page 48. We have the same amount available this year as last year. The budget this year is like last year's. Shad in the Classroom and the Teacher Institute are both still there. The funds for one workshop were carried over. A big difference this year is the indirect costs. In the negotiated agreement between NCDEQ and USEPA, it is 8.7 percent, so it decreases to about \$30,000. Bill is pleased about that reduction. Bill noted that when he started the job, he went through the entire budget and didn't realize that he had to pay indirect costs to the Department. The reason it dropped is because they are now in the DWR and have fewer positions funded by state funds. Bill noted that it is somewhat of a black box, but regardless, he is pleased that it dropped. We have more funds to put toward implementation projects. The Action Teams are gearing back up, and ideas for projects will come from the teams. Bill gave us an example. Five small projects were completed last year, from one team, Education and Engagement. The teams can use their funding how they see fit. The idea behind the Implementation Committee is that they would evaluate and fund projects using these funds.

Bill noted that in lieu of the Implementation Committee, the STAC and PB make these decisions.

Carl asked if the Teacher Institute and Shad in the Classroom has been ongoing for six or seven year, with APNEP engagement. Bill noted that both have been long-term projects. He noted that the PB has felt that Shad in the Classroom was a good symbolic project for us, since it links the ecosystem connecting folks inland to the coast and back.

Carl noted these projects combined take about a third of the funding that APNEP has available. He noted that the funds are leveraged, but it is critical to explain the value. He asked if we have some metrics that we could use, to justify and explain the value of the project. You could use that information to convince folks who may ask about continued investment in the program.

Bill said yes, they usually do pre-workshop and post-workshop evaluations, with the teachers and students. He gave an example of some of the questions used to determine if they had used what they had learned, had they written any grants. One year they followed up to produce a one-day workshop with the teachers based on feedback. We would like to have more follow-up metrics for all of our projects. Bill noted that we want to have reportable metrics that tie back to CCMP actions. Bill noted that it is up to the board to determine what percentage of the budget to spend on which project.

Carl stated that we should have the metrics in our hip pocket. Bill noted that the educators have been much better about documenting the results of their studies.

Wilson noted that there are some factors that are difficult to control, such as one case where complete mortality of the shad eggs occurred because a student added lotion to the tanks. Bill agreed that we need to document things, but some factors are hard to control. He pointed out that the experience is valuable regardless of whether there are high mortality rates, that success can be determined in other ways such as the impact and impressions on the students and the teachers. Some of these benefits are not measurable. In past years APNEP and partners have received stacks of thankyou letters, they create banners welcoming their fish, etc.

Carl noted that to him, it is important to tie everything back to the CCMP. Bill agreed and explained we do ask when requests come in for funding.

Tom noted it was great to have the extra funds this year, and asked if the change in overhead meant more funding for implementation.

Bill noted that if he puts a contract in today, we don't have to meet a September 30th deadline. If we can cross years, it usually means that projects are completed in a much better fashion.

Todd asked how we are doing in terms of the current budget and expenditures. Bill indicated that he didn't have those numbers with him and we are behind in determining that due to the move to a new Division. On the old grant, expenditures will be completed with the two RTI studies. For the current one, we still have funds to expend because we have had vacancies for a while, and some projects have come in under budget. We will have more funds than we have had last year, and those funds can be used for implementation projects. Bill noted that those funds usually do go to implementation projects.

Tom asked about the APNEP Conference. Bill explained it was budgeted last year, but wasn't held. They want to hold some type of workshop in late fall. He is talking to Susan White about the Sea Grant Coastal Conference and possibly combining forces with them but there is value in holding an APNEP specific conference. Dean is going to talk to the STAC about any ideas they may have.

Dean noted that this year's workshop will make up for last year's. The STAC co-chairs had sought input for future STAC meetings. We suggested that for the upcoming symposium, we could possibly use the suggested themes as topics, such things as nutrients, and align them with CCMP actions.

Todd asked who the target audience would be, ourselves?

Bill noted that for an annual conference, we have usually focused on projects we have partnered with folks on, and projects that partners are engaged in. For future ones, we would like to focus on tying that to CCMP implementation. Partners have usually presented their projects and what they have accomplished.

Todd noted that given the major fall elections coming up, and uncertainty regarding the outcome, we might want to focus the workshop on education. If we hold it before the elections, we may wish to focus on stressors, and possible actions that could be undertaken. We could focus on pollution and other issues.

Bill noted that we would want to see a focus on issues and possible solutions and not just a gripe session.

Bill noted that as far as staffing, they are currently trying to fill the Project Coordinator position and there is also an Outreach and Education position. He has been waiting to see what will happen with the university, and depending on that outcome, may well broaden the focus of that position.

Tom asked about the workshop line item. Bill indicated that those funds were carried over from last year so they aren't a line item.

Tom asked for any other discussion. There was none. Bill noted that he needs a motion to move it on to the Department and EPA for their consideration.

Carl moved to adopt the workplan and budget so that it could be submitted to DEQ and EPA for approval. Mac seconded the motion. The motion passed without objection. The adopted work plan can be found [here](#).

Bill wanted to point out one thing we hadn't discussed on page 46. He noted that often he didn't have these numbers, but he did want to report funds leveraged this year. He pointed out that some of the board members staff helped report some of the figures. Some of the funds come from projects we are directly involved in. Last year, APNEP received 6.9 million dollars, off the \$600,000 we received. Carl asked what is typical for other NEPs. Bill said it is not as high, Bill noted that part of this was since both he and Jimmy were half-time on CWMTF funds. Bill explained the trust fund, which was established in part due to the first CCMP. APNEP used to report part of all the CWMTF projects, but EPA headquarters noted that this skewed the numbers of the other NEPs, so they halted that practice. Bill noted that he is very confident about this number. On average, for every dollar we get from EPA, we tend to get four to seven dollars in return each year.

Todd stated that we do spread the funds around to a lot of different projects, but it does make it hard to fund major work. He asked if perhaps next year, we select one signature event or initiative that we could focus on, about which everyone could get excited. For example, this year the RTI reports.

Bill noted that we do have the economic assessments, so we should decide what to do next. He noted that APNEP often works to fill gaps that other partners can't fill on their own. Bill noted that he struggles with conducting studies, versus accomplishing on-the-ground restoration. He noted that it is a good role for the Implementation Committee to determine how to expend those funds.

Todd noted that we aren't competing very well nationally, for example with Farm Bill funding, in comparison with some other states. He suggested that we might want to look at how we might better leverage the funds and pool our resources together. Perhaps we can think of some innovative ways to use the funds.

Carl agreed, and noted that using the funds to do on-the-ground projects just doesn't go very far. The economic study may enable us to better see where the threats are in relation to economic value, and go after some of the Farm Bill, or other funds. Carl noted that this is one of those "multi-state" programs that is only being done by one state partner. He noted that Virginia is always complaining about other partners in the Chesapeake Bay, not pulling their weight, yet as far as he knows, his and Kirk's involvement is the ONLY contribution that VA is making to APNEP. Perhaps we could identify areas where VA could step up and contribute resources.

Bill agreed that he is short on leveraging Virginia dollars. However, he noted that Kirk and Bill are not the ONLY VA partners involved, and he noted several others, as we have partnered with the Virginia Chapter of the Nature Conservancy, and APNEP is engaged with the Albemarle-Chowan Watershed Roundtable, and there is some interaction there with VA DEQ. He did agree that APNEP is NC-focused in many ways. Bill noted that the \$600,000 is a measly amount, which won't even purchase one acre of waterfront property. He noted that one of the benefits of the program is bringing in more funds.

2:00 p.m. Old Business

Association of National Estuary Programs Dues

Bill noted that Stan Hales, Director of Barnegat Bay, and also president of the [Association of National Estuary Programs](#) (ANEP), had noted that APNEP does not pay dues to the Association. Our operational funds are solely tied to 320 funds, and EPA will not allow us to use funds to pay dues. Also, almost all of the NEPs that are housed in government agencies do not pay dues. The Association is 501(3)c and does engage in some lobbying.

Stan and the Treasurer contacted Bill again and wanted to know if APNEP could either pay dues, or provide some sort of in-kind support. Bill noted that one year, APNEP paid the cost of brochures. Bill noted that the government NEPs had decided that it was inappropriate to use staff time even, since the staff are paid for by the EPA grant. Bill noted that Stan asked him to go to the PB, and asked about a way to pay the dues, which amount to \$4,000 a year. The big benefit is from the lobbyist in DC who works on behalf of the NEPs. Bill noted that he is both comfortable, and uncomfortable, about paying dues, but it is important to have someone working on behalf of the NEPs in the halls of Congress. On the one hand it is a lot of funding; on the other hand, it does purchase lobbying support. He asked if we want to pay the dues, and if so, how do we pay.

Todd asked whether they charge registration at their meetings. Yes, they do, about \$300 per year, which covers food and other expenses.

Carl asked what the percentage would be, for creating a Board of NGO advisors and ask them to pick up the cost of the annual dues. Carl suggested that we could invite them to an annual meeting and solicit their advice. We could establish an annual formal connection where we talk about the workplan and how we can work together.

Bill indicated you could probably bring in funding because it is hosted by a regional association.

Carl asked if there is someone that could act on behalf of APNEP, could one of the board members do it. Bill indicated that someone could do that for APNEP. Bill noted that partners could pick up the cost of some of the dues. He noted that it would likely have to be a Board member who paid the costs even though he would hate to ask.

Carl noted that the costs could be kept low, if NGOs would contribute funds to the dues. Carl felt it might even strengthen the program.

Tom asked if there was an option to have a "Friends of APNEP" or similar group. He noted that if ECU did this, they would probably have their hands tied behind their back. Carl said that they do this at VIMS. There they have a foundation that administers the funds.

Tom noted if you have a workshop, charge \$40 per person, for 100 people, there are your dues.

Holly noted another possible option would be to charge a fee for participation in an annual event, for vendors to have a booth. Carl noted that the downside was establishing an annual expectation and you would have to hustle every year to make sure there were enough folks signed up. Carl stated that it would be advantageous to work through a third party.

Bill noted we could consider having a benefit, held by a third party, from which the funds could go to APNEP. Coley noted that Sounds Rivers and the American Fisheries Society both have annual fundraisers.

Bill noted that we haven't paid dues for quite a while. Our process is working; it is just uncomfortable. Tom asked how the other NEPs that can cover the dues. Bill indicated that some are hosted by NGOs, and others have a state allocation.

Todd noted that you could still charge a registration fee. Bill agreed that we could charge a registration fee, if no one was using federal funds to pay.

Bill noted that we don't have to solve this issue today. Perhaps by the end of the year, we can solve it. Todd suggested that we should consider how much the lobbying is worth. Carl noted that the NEP would not likely exist were it not for the current lobbying efforts.

University Host

Bill noted that he had advised the board in March that things were rather on hold. The UNC Institute for the Environment is supportive of a merger. Bill was asked to wait for a while, until the atmosphere improves for inclusion. Bill noted that UNC is not a land-grant college, so there is some sentiment that they don't want to be involved with all our grants. The new Vice-Chancellor for Research coming in is more amenable to the situation. Bill noted that the program will have to pay something, but that has to be negotiated.

State of the Oyster Report / [Oyster Blueprint](#)

Bill noted that the [State of the Oyster 2015 Progress Report](#) will be coming out pretty soon. He asked Todd Miller to give a report. Todd explained that Erin Fleckenstein with NCCF is the lead, and they are working closely with DMF and other partners. Todd noted that this is part of the blueprint that we adopted last year which requires an annual report. He briefly reviewed the outline for the 2015 report.

Bill noted that the oyster group is a model for what we want all our Action Teams look like.

Todd noted the graph that shows the aquaculture industry in VA, versus that in NC, and noted that Virginia is clearly doing something right. He noted that the motivation is to catch up with Virginia as quickly as we can.

Bill indicated that the [report](#) will be posted on the website soon.

Tom asked about mapping new cultch sites. Todd indicated that it needs to be done.

Mac noted that he loves oysters. He contacted NCDMF and they sent him a map showing all of the cultch sites since 1996. The last year is not yet mapped, but you can go back to 1983 and get locations for all of the sites.

2:30 p.m. New Business

Vice Chair Nominations

Bill asked how to proceed regarding nominating individuals to be Policy Board Vice Chair. We need to have one prior to the end of the year. Tom's term will end at the end of the year and Kirk is the next chair. Todd asked Mac if he would consider taking it on. Bill noted that we could have the election right now, it sounds like we may have a candidate. As the previous chair, Todd serves as an ad hoc member of the executive committee so there is continuity in leadership.

Potential Bylaw Changes

Bill noted that he would like to come back at the next meeting with a change to the Bylaws so that the Vice Chair would be on the Executive Committee.

Also, we need to consider Ellen Gilinsky's visit. Bill suggested that we need to have her visit with leadership, and see some projects. Carl suggested looking through the CCMP and more particularly the Work Plan to identify partners that would benefit from funding, or partnering. He suggested that we seek ways for EPA to make a substantive difference in APNEP, through small investments. He suggested we have a printed out small argument for why small investments could make a difference.

Tom asked what office she is in. JoAnn indicated that she is in the Office of Water. Todd asked about Dave Evans. JoAnn indicated that he was one of the Division Directors in OWOW (Office of Water, Oceans and

Wetlands). Todd noted that September is the height of the hurricane season. Someone suggested that is when we need the NOAA people to visit. Tom noted that his September is wide open.

Bill noted that the Planning Conference is the 14-16. Bill asked about the 19-21 period. Coley noted that a Nutrient Workgroup meeting was scheduled September 21st.

Todd asked what was feasible in terms of moving around, will she be here two or three days. Bill suggested penciling the week of the 19th, for meeting with her for several days.

Todd noted that Steve Murphey from DMF would be good to discuss oyster work. Bill suggested we could add North River Farms, and a mariculture site as well. Perhaps going to the Nutrient Work Group Meeting would give her a good on-the-ground experience and observe a diverse group of stakeholders discussing nutrient criteria development.

2:20 p.m. Adjourn