



Annual Joint Meeting of the Science and Technical Advisory Committee and the Estuary Implementation Committee

Meeting Minutes

Monday, September 18, 2017

9:30 A.M. to 3:00 P.M.

EPA Region 3 Office, 1650 Arch Street, Philadelphia, PA

STAC Attendees

Lance Butler – PWD
Tom Fikslin – DRBC
Dorina Frizzera* – Getting to Resilience, LLC
Desmond Kahn – Fishery Investigations
Danielle Kreeger - PDE
Kari St. Laurent – DNREC
Lori Lester – NJDEP
Daphne Munroe – Rutgers U
Kristen Regan – EPAR3
Allison Rogerson* – DNREC
Pete Rowe* – NJ Sea Grant
Ken Strait – PSEG

EIC Attendees

Jen Adkins – PDE
Kelly Anderson – PWD
Kimberly Cole* – DNREC
Michelle Price-Fay – EPAR3
John Kennel* – DNREC
Megan Mackey – EPAR3
Rhonda Manning* – PADEP
Ken Najjar – DRBC
Irene Purdy – EPAR2
Jay Springer* – NJDEP

Other Attendees

Emily Baumbach – PDE
Stefanie Kroll – ANS, DRWI
Angela Padeletti – PDE
Metthea Yepsen – NJDEP

**Participated on phone and Adobe Connect*

I. Welcome & Introductions

- 9:30 am: **Jen Adkins** (PDE, EIC Chair) called the joint STAC/EIC meeting to order
- **J. Adkins** informed participants that the meeting will focus on key topics and issues pertaining to two large documents – the draft revised CCMP and the draft 2017 TREB
- **Danielle Kreeger** (PDE, STAC Science Advisor) noted that Sue Kilham would be unable to join the meeting
- **Ken Najjar** (DRBC) noted several corrections needed to the May 11th EIC minutes
 - Edits to DRBC update
 - Revise to include that the dam removal was funded by a natural resource damage claim (Page 3, bullet 4)
 - Revise to clarify that action may be taken in June based on feedback and discussion following comments (Page 4, bullet 8)
 - Grammatical errors
 - '2)' is duplicated (Page 5, Spring Steering Committee Meeting/Call)
 - Correct the word 'discuss' to 'discussion' (Page 6, third paragraph)

- **D. Kreeger** noted that a few comments were received via email from DRBC on the previous STAC/MACC minutes and requested for any additional changes
 - **K. Najjar** noted a correction needed from ‘hydroelectric power’ to ‘thermal electric power and consumptive use’ (Page 4)
 - Need to also delete the word ‘will’ (Page 13, bullet 1)
 - Contingent upon the edits, motioned to accept, and minutes were approved for previous STAC/MACC meeting minutes

II. PDE Board and EIC Updates

- **J. Adkins** provided an update from the PDE Board meeting on September 7th
 - Details for the Experience the Estuary Celebration on October 11th taking place at the Waterfall in Claymont, Delaware
 - Discussed future plans for the Philadelphia-based mussel hatchery project
 - Reviewed the CCMP revision process, and gave board members the opportunity to provide some feedback on draft strategies
 - Announcement of the new Director of Outreach, Renee Brecht (formerly with American Littoral Society), who is excited to be working for PDE and held a successful Pennsylvania Coast Day
- **Emily Baumbach** (PDE) reported out on 2017 NEPORT submitted projects
 - There is an online, interactive NEPORT map available to view project locations
 - 6,321.2 acres were submitted (4139 DE, 454 PA, 1407 NJ) at 36 projects total
 - Top habitat types included tidal wetland, forest/woodland, forested wetland
 - Top restoration techniques included berm/dike modification, land acquisition, and nutrient management
 - Over 75% of the projects submitted were categorized as rehabilitation projects
 - \$4.98 million were submitted through leveraging at 53 projects total
 - State funding accounted for the largest portion of leveraging by source at \$1.7 million and roughly 40%
 - Received a high level of submissions from USFWS this year to assist with accounting for a wide variety of leveraging projects
 - A habitat project at Prime Hook Wildlife Refuge was an unusually large DNREC project captured this year at 4,000 acres

III. Revised CCMP Orientation and Timeline

- **J. Adkins** reviewed several key topics for the CCMP revision process
 - Focus area is on the lower half of the Delaware River Basin and fits in with NEP values
 - DELEP plays a coordinating role with the plan meant for all of these partners
 - Used the framework from the original CCMP and moved to a three-part framework: Clean Water, Strong Communities, Healthy Habitats
- **J. Adkins** gave an overview of the strategies for each of the goals outlined in the revised CCMP, highlighting the following:
 - Clean Waters
 - Nutrient Pollutants: Philadelphia’s *Green City, Clean Waters* program, Green Guide for farmers, educating homeowners on the importance of rain gardens,

- research on freshwater mussels and wetlands and their interaction with nutrients
 - Other Pollutants: Formally the “toxics” goal that targets contaminants of emerging concern, storm drain marketing, providing information on hazardous waste cleanups, tracking and reporting on PCBs, research on fish consumption and shellfish beds
 - Sustain Flow: Gathering new information on salinity tolerances for species, improving techniques for water conservation through utilities and outreach and assistance to businesses, the inclusion of regional sediment management
 - Strong Communities
 - Resilience and Access: Restoring working waterfronts, providing tools and technical assistance, strengthen waterfront economies, public benefits and access for people
 - Engagement: Marketing and communications, events to build engagement, programs for teachers and schools as well as local communities and partners, assessing impacts of outreach strategies through surveys and focus groups
 - Healthy Habitats
 - Wetlands: Tracking and improving wetland health, focusing on non-tidal wetlands, noting the \$625 million saved due to the existence of wetlands
 - Forests: Emphasis on protecting coastal forests as well as headwater forests and their influence on water quality (e.g. riparian corridors), establishing forest baselines, promoting forest stewardship and land protection by working with forestry departments and land trusts
 - Fish and Shellfish: A focus on oysters and mussels, as well as other iconic habitats for horseshoe crabs and birds, restoring oyster beds and productivity, promoting living shorelines and aquaculture, freshwater mussel recovery, rare and endangered species, species management for invasive plants and animals
 - Currently, about half-way through the CCMP revision process after working with experts during topical workshops, listening sessions, and climate vulnerability workshops
 - Attendees of the CCMP open houses are provided with a simplified version of the Core Elements document
 - Next steps will include refining the current draft CCMP, providing this refined version to the Steering Committee, followed by a public comment period
- **E. Baumbach** provided an update on the CCMP Open Houses
 - 8 meetings total, structured in a 2-hour open house format to engage stakeholders and local residents
 - Highlights from the 3 meetings that took place so far include ideas for teachers, incorporating historical and cultural aspects into programming, water monitoring for citizen science, defining healthy water, and including more actions on environmental justice and diverse communities
- **Desmond Kahn** (Fishery Investigations) asked if there is any consideration for fish passages in the plan
- **J. Adkins** noted how fish passages come into play for some of the strategies, but PDE is not conducting most of the work on fishery management

- Asked for other STAC and EIC members to provide feedback on other areas where fish passages could be incorporated
- **K. Najjar** noted how Strategy H3.1 covers fish passages, but that this area could be expanded further in other locations in the plan
- **D. Kreeger** informed the group how indicators outlined in the TREB were developed to provide scientific data for the CCMP for reference to help guide actions and strategies
 - Encouraged the STAC and EIC to review both the TREB and draft CCMP and provide information on recommendations that could feed into actions
 - Reminded STAC members how they were invited to expert workshops to provide initial feedback
 - This is another opportunity for draft review to provide additional recommendations based on expertise
 - STAC members are invited to provide information that might still be missing in the plan since it's not typical for EIC members to flag research and monitoring needs
- **Tom Fisklin** (DRBC) noted how the Nutrient Pollution goal displays redundancy on agricultural runoff
 - There's an opportunity to combine some of these actions into one rather than watering down agricultural runoff information into multiple strategies
- **K. Najjar** noted how the first two goals listed in the Healthy Habitats theme deal with loss while the third goal is more positive since it displays "Increase and Improve" in the title
 - There might be a way to rephrase this differently to be more fluid with the other goals since there is a loss aspect to the fish and shellfish habitat goal as well
- **D. Kreeger** noted how each of the three themes in the CCMP has an introduction page outlining the theme as well as an introduction page for each goal
- **J. Adkins** noted that the additional incomplete strategies will still need to be added to the current draft CCMP documents which might result in some more information added to the introduction section
 - Two other sections will also be drafted on Financing and Monitoring
 - A team of PDE staff members will be drafting the finance portion
 - Danielle Kreeger will work with the MACC on the monitoring approach
- **J. Adkins** reported that IAR feedback was received from a majority of partners
 - PDE will be providing a compiled IAR document with feedback on the Core Elements to assist with providing comments on the full draft document
 - The EIC can then review their submitted comments along with the IAR comments
- **K. Najjar** asked if the Core Elements document should be shared for review at this point since the full draft CCMP document is now available
- **Megan Mackey** (EPA R3) noted how providing the Core Elements document to other agency partners was very helpful since it was a good outline to review
 - The next IAR round will provide the full draft CCMP to staff members
- **D. Kahn** noted how it could also be helpful for the overview comments on the Core Elements document to continue to be reviewed when seeing the fleshed out version of the draft CCMP
- **J. Adkins** reminded EIC members to provide written comments on the draft CCMP by October 2
(Note: The EIC shifted the CCMP revision timeline resulting in a new deadline of November 15th for both IAR and compiled EIC comments)

- A summary of additional partner meetings and open houses will also be compiled and sent out in November
- **Irene Purdy** (EPA R2) asked if there was a way PDE could promote the CCMP revision process and associated meetings more (e.g. through a direct post on the PDE website at the top of the homepage)

IV. Revised CCMP Key Issues for Discussion and Guidance

A. Defining Partners and Key Collaborators

- **J. Adkins** gave an overview of the leads and partners document that was drafted with the assistance of Ingrid Irigoyen of the Meridian Institute which provides preliminary definitions to three types of partners involved in the CCMP revision process
 - Core Partners: Partners that have representation on the Steering Committee and are committed in written agreement to provide direction and involvement in the implementation of resources for the CCMP (e.g. DNREC through strategy W2.2 on contaminated sites)
 - Collaborating Partners: Organizations that are working closely with Core Partner agencies and others to implement actions that support strategies in the CCMP, but are not represented on the Steering Committee (e.g. USFWS through strategy H3.4 on horseshoe crabs)
 - Contributing Partners: Organizations and other entities whose missions and actions support CCMP goals and objectives, but may or may not directly coordinate with PDE or Core Partners in taking on those actions (e.g. Alliance for Watershed Education for the Delaware River Basin through strategy C2.2 on teacher and school programs)
- **K. Najjar** noted how other organizations will assist with gathering information for the CCMP, but the responsibility for writing and tracking seems to lie with the Core Partners
- **I. Purdy** cautioned listing some of the other organizations as partners in the current version of the draft CCMP if they have not all been made aware that they are called out in this document
 - Want to ensure we are also gathering the right feedback from these organizations on what they are currently doing in relation to CCMP strategies
- **J. Adkins** reminded the group that there will still be another round of edits on the draft document
 - Many of these groups were recently added based on the results of the expert workshops
 - Once a more refined version of the draft is available, all groups will be made aware that they are listed on the document
- **D. Kahn** raised concerns over focusing on horseshoe crabs in the draft CCMP since only USFWS has authority for any actions related to the management of the species
 - The species is managed by the Atlantic Fisheries Commission, with USFWS part of this commission
- **D. Kreeger** reminded the group that PDE does not have any regulatory authority, but is deeply involved in restoration of horseshoe crabs and beach restoration to enhance spawning
 - PDE could assist with providing scientific data related to horseshoe crabs through providing information on monitoring results, spawning surveys, or restoration projects

- **J. Adkins** noted how the horseshoe crab is also an iconic species from a public standpoint and plays an important role unique to the Delaware Bay
 - This is a habitat PDE and partners are actively looking to restore
 - The Atlantic sturgeon is also listed in the plan even though the species is tightly regulated
 - Horseshoe crabs also deal with intertidal habitat which potentially opens up more opportunities for PDE to assist with related actions
 - The plan will highlight key species (e.g. horseshoe crabs, sturgeon) and incorporate background information in the introduction and different species sections to highlight how there are many other species of concern
- **K. Najjar** recognized how some organizations may no longer be around or be actively engaged around certain topics after the 10-year timeframe on the revised CCMP
- **D. Kahn** recalled how STAC did discuss how sturgeon are sensitive to dissolved oxygen, and PDE came out with a STAC brief covering this sensitivity and how PDE can take a constructive role to call attention to issues that might affect the resources
- **J. Adkins** also reminded the group how there is a strategy that talks about the role of the STAC, and how the plan won't be limited to the specific species called out in the CCMP
 - Sections covering water quality and critical habitats are left somewhat open to give the STAC the opportunity to choose how they'd like to deal with some of the species issues
- **K. Najjar** advised that the plan should still hold people accountable and acknowledge those doing good work while also ensuring that the correct organizations have been captured
- **J. Adkins** noted how some strategies may simply list "local watershed organizations" since capturing and listing all corresponding organizations might be difficult
- **Michelle Price-Fay** (EPAR3) shared an idea about capturing change in the revised document through an annual workshop that produces an updated list of current organizations
- Several STAC/EIC members requested that an acronyms list be made available moving forward with the CCMP revision process

B. Tracking Implementation

- **J. Adkins** provided an overview of a first draft tracking table for the CCMP
 - Tracking success pertains to outputs, outcomes, as well as impacts
 - For the CCMP, these fall under "How we will measure success"
 - Impacts can be reviewed on 5-year cycles and through the TREB
 - Still working on how to track outputs and outcomes across different strategies
 - Preliminary tracking ideas include providing additional information to the current GPRA process when asking partners to report out on NEPORT data to gather outputs (e.g. # projects, # people, trends in data) and outcomes (e.g. lbs removed, gallons saved, acres protected)
- **J. Adkins** asked the group how they would feel about additional categories being added to the NEPORT excel sheets collected each year and if this approach would work for EPA
- **Kari St. Laurent** (DNREC) addressed the need for a baseline to ensure you are working towards something to help put the tracking aspects in context
- **K. Najjar** expressed concerns over subjectivity and the importance of knowing the time frame of reporting for partners

- Rather than reporting annually, can report out every 5 years depending on the projects
- **I. Purdy** noted how EPA cannot add another layer to NEPORT for these tracking purposes, but PDE could utilize an updated excel file or another database to collect information
 - Data collected could go into STORET or another database that the states collect
 - Having this data readily available for managers would also be helpful
- **Kim Cole** (DNREC) informed the group how tracking is already taking place within the states and how there should be some reservations about creating something completely new when the data is already being collected
 - Could tap into what is already being used to collect information
 - Gathering the number of projects might be a difficult aspect to capture since different organizations have different ways of defining a project
- **J. Adkins** informed the group how the TREB provides impacts rather than outputs
 - Some strategies will be easily tracked while other will not
- **M. Mackey** noted how it won't be necessary to track every single strategy, but will need to come up with a reasonable way to track a multitude of different aspects and reevaluate them on a frequent basis
 - Since each strategy will be different, some actions will be over 1 year while others may take place over 5 years
 - Gathering data will help officials and the public know what PDE and the Estuary Program are doing for the region
 - Shouldn't limit the tracking to a certain number of years
 - Include annual check-ins to help the process
 - Could ask for the NEPORT and tracking data at the same time and ask agencies about what they are already calculating and what would be appropriate for them to provide within the timeframe
- **K. St. Laurent** also noted how it might be challenging to ask for specific numbers from partners if we don't yet know what the outcomes are
 - Need to see what the best tracking options can be for each strategy and then evaluate
- **J. Adkins** asked partners if there were any specific areas already being tracked that would be suitable for collection while providing NEPORT information
- **Ingrid Irigoyen** (Meridian Institute) recommended creating a small group to dive deeper into the aspects associated with tracking and ask for volunteers who cover this perspective to get together and have an in-depth discussion on tracking
 - Having a small group devoted to discussing different tracking methods may be the most efficient way to handle shaping future tracking strategies for the CCMP

V. 2017 TREB

- **D. Kreeger** gave an update on the 2017 TREB
 - The TREB has gone through targeted review and is fairly polished at this point
 - Currently looking at edits pertaining to factual accuracy and overall messages
 - The 2017 TREB provides a richer compilation of data compared to the 2012 TREB and also includes a better special resolution
 - Restoration Chapter 8 is the only chapter that is not tracking indicators, but looks at how well we are currently doing

- Often a struggle on what to include in the Restoration Chapter
- Nothing major has changed in the 2012 top indicators and trends
 - Articulated the basis for a 'fair assessment' through the top 10 positive and negative indicators with no major changes for the top negative indicators
- The 2017 TREB will also follow the new PDE style guidelines
- There are potential plans to create a trifold brochure to provide key messages to the public
- Article from Science of the Total Environment focuses on river systems and points out ways that managers and researchers can improve the way they think about indicators
- Next STAC meeting will focus on moving structure to function and providing more direction on how researchers think about function
- **Angela Padeletti** (PDE) requested for TREB comments to be sent in by October 2nd after reviewing the document posted online at https://s3.amazonaws.com/delawareestuary/TREB_2017_FULLDRAFT.pdf
- **J. Adkins** reminded participants how the TREB works to inform the CCMP in addition to the State of the Estuary report
 - STAC members should keep an eye out for parts of the TREB that should be referenced in the CCMP since there will not be a public-friendly version of the TREB produced
- **Ken Strait** (PSEG) noted how the 2017 TREB could be noted in the PDE newsletter
- **K. Najjar** asked if the current TREB results suggest that the CCMP is working
- **D. Kreeger** informed the group that the revised CCMP gives us the opportunity to focus on the areas where we have not seen improvements

VI. Monitoring Workshop Planning

- **D. Kreeger** gave an overview of the current plans for a future monitoring conference
 - Strong interest in revisiting monitoring infrastructure collectively to fill current data gaps
 - Plans for this conference are in good sync with some of the current Drexel University Academy of Natural Sciences research
 - There is some concern over having the capacity to hit all of the different sectors pertaining to water quality monitoring
 - Need to carefully articulate the goals of a monitoring meeting to align with the goals of the lead agencies
 - Need to look at how to best market the conference to make sure the right groups are able to attend the event and share information with each other
 - Will be polling the group on when to hold the meeting so people can hold dates on their calendars
 - Potentially looking at dates in the fall to not conflict with spring/summer fieldwork
- **J. Adkins** informed participants that the monitoring approach is an item that is still needed in the revised CCMP
 - There are plans to create an inventory around monitoring which would then be linked to the CCMP
- **D. Kreeger** reminded the group how the first PDE Science Summit led to the creation of a white paper
 - Participants at the summit reported out on current work related to monitoring and created future monitoring needs

- Resulted in a top 10 list of current monitoring needs based on the feedback received during the monitoring sessions at the summit
- **D. Kreeger** noted the importance of a needs assessment along with an inventory which could be fed into the CCMP
 - An action item would be listed in the CCMP to hold a monitoring conference
- **T. Fikslin** noted the need to continue attracting researchers for this conference and the importance of working with universities (e.g. Rutgers, Drexel, UDel) and find ways to attract these individuals
- Representatives charged with the planning of the monitoring conference include the following: Stefani Kroll and Carol (ANS), Tom Fisklin (DRBC), Angela Padeletti and Danielle Kreeger (PDE)
 - Danielle Kreeger will send out an email chain to the planning members to discuss next steps for the monitoring conference

VII. Roundtable Updates

- **J. Adkins** invited STAC and EIC members to provide updates on current work taking place within their organizations as well as the opportunity to share how each organization conducts their Interagency Review
- **T. Fikslin** reported out on current DRBC initiatives
 - Developing regulations for natural gas development within the Delaware River Basin
 - Will be reviewing regulations into November
 - The last natural gas regulations were published 7 years ago, with the regulations being reviewed looking for a new direction in the development of well pads
 - Wrapping up PCB TMDL Stage 2 Report
 - DRBC produced a draft report and is currently reviewing comments
 - Public hearing will take place in early 2018
 - Over the past several years, there has been discussion about a pathway for evaluating designated use of the Estuary for fish and aquatic life
 - Laying out a 6-year program to eventually determine designated uses for aquatic species that will include a list of future actions required, input from an expert panel on field study eutrophication models, fish species research, input on the Endangered Species Act with respect to sturgeon, determine nutrient loading, how to optimize technology and achieve higher levels of DO, and review highest attainable use for the Estuary
 - Resolution was passed for increasing designated use in Zones 3 and 4 to provide studies with other regulators, the states, and EPA
- **D. Kreeger** asked how the panel will decide which species are included in the plan since PDE would like to understand which species will be considered
- **T. Fikslin** noted the need for allocations and the availability of treatment technologies as the process moves forward and how an important component will include reviewing key species
 - A species list has not yet been developed, but will be working closely with the Water Quality Advisory Committee to take additional input on species
- **J. Adkins** asked about the natural gas regulations with the November 30th deadline and the questions and comments put out by staff regarding the original regulations
- **T. Fikslin** noted that no one can speculate or indicate the regulations until the results are released with the official comments that were received

- **Rhonda Manning** (PADEP) provided updates on an enhancement program in Pennsylvania
 - Working to retire acres of marginal pastureland and reduce loadings of N and P into the river and expect that CREP (Conservation Reserve Enhancement Program) should improve waterways in PA
 - Conducted a training program with landowners in Monroe County, PA
- **Stefanie Kroll** (ANS, DRWI) reported out on DRWI Phase II planning
 - Targeted in specific watershed areas rather than only farmlands
 - 8 groups participating in the basin are getting finalized over the next few weeks and will be posted on the DRWI website where plans for the agricultural restoration, land preservation, and stormwater restoration will be posted
 - The Academy of Natural Sciences has been leading on the science of biotic integrity of streams around the projects
 - Through this fall and into the winter, technical and nontechnical reports will be shared with stakeholders
 - Additional future plans include creating a data dashboard to provide a map of the sites to review sample locations and a more user-friendly interface to see trends and IBI scores
 - People can request raw data and additional information from Stefanie and view information on ansp.org/DRWI
- **Pete Rowe** (NJ Sea Grant) reported out on an upcoming symposium
 - The symposium will review the red knot, horseshoe crabs, and intertidal oysters along the Delaware Bay
 - Recently completed a proposal review and will be supporting 7 proposals in 2018
 - Not directly related to Delaware Estuary but will have some transferrable information on ocean acidification from the Mid-Atlantic Coastal Acidification Network
 - Looking to support graduate student fellows across PA, DE, and NJ
 - National Sea Grant office is looking to get a program officer out to see each of the state programs which will increase established dialogue and opportunity for feedback and review
 - Will help make sure that annual reports are written properly
- **K. Cole** provided some updates and reminders on behalf of DNREC
 - Delaware Coast Day will take place on Sunday, October 1st
 - MARCO (Mid-Atlantic Regional Ocean Council) currently working on an economic resilience study for the Mid-Atlantic region spanning from NY to VA
 - New economist in the DE Sea Grant program and is reviewing how far up the Delaware the study should review
 - MARCO will have a large focus on marine debris
 - Following the CCMP Open House in Lewes on September 26th, there will also be a showing of the *Ocean Frontiers III* film followed by a panel presentation to discuss public workshops and non-consumptive recreation use and the National Estuary Research Reserve updating a 5-year management plan
- **Allison Rogerson** (DNREC) provided an update on the Delaware Living Shoreline Committee
 - Group held their last meeting at the end of March and will be meeting again in October
 - Working on expanding and updating outreach materials to connect with landowners and interested professionals

- Updating a monitoring framework for people to better communicate between different programs, private projects, permitting, and tracking
- Created a new sub-committee to focus on design and engineering
- **D. Kreeger** informed the group of two new projects PDE is working on
 - A new state ecological projects committee was been formed in NJ, with a conference call in October to focus on coastal resiliency workshops and future design and installation work
 - PA has been the missing link for living shorelines with work in DE and NJ spurred by planning studies funded under the Delaware Coastal programs and coastal zone money in NJ, but PA Sea Grant has now funded PDE for a living shoreline study partnering with PWD; we'll be choosing 20-25 sites and create 7-8 conceptual designs
- **Kelly Anderson** (PWD) provided an update on the Interagency review process for PWD
 - All items CCMP-related are disseminated to peers at the department based on their related work
 - There are designated staff that follow of the DRBC committees as well
 - The latest version of the CCMP draft will be sent to expert and technical staff to coordinate comments and send feedback up the chain to the Steering Committee representative
- **Lance Butler** (PWD) informed the group of the 20,000 mussels in rearing ponds right now, supplementary to the larger production facility
- **D. Kreeger** noted that juvenile mussels have been tagged and released in Ridley Creek
 - Expect to produce 0.5 to 1 million seed per year as a goal for the production hatchery
 - Future plans for the hatchery also include the creation of live tank spawning for American shad
- **M. Mackey** and **I. Purdy** provided regional EPA updates on the CCMP revision process
 - **M. Mackey** thanked PDE for submitting their work plan in a timely fashion and noted the grant for the next fiscal year has been awarded
 - Also thanked PDE for getting NEPORT submissions in prior to the deadline
 - **M. Mackey** noted how a work group has been established to identify staff that should provide insight on the CCMP revision process
 - Conducted meetings to review the program and send individual updates
 - Held meetings to discuss the Core Elements document and gather feedback
 - Focus on individual EPA representatives since each person plays a unique role with different strengths
 - **I. Purdy** noted how division directors are aware that certain people will be tapped for their expertise
 - While some individuals weren't as familiar with the Estuary Program and what the CCMP is, their expertise will be isolated as needed
 - Feedback has been cycled into review periods
 - The draft plan has also been sent to other NEPs in the region for additional feedback
- **D. Kreeger** reported that PWD will also be partnering with PDE on oyster shell recycling with plans to expand the program throughout central Delaware, New Jersey, and Philadelphia
 - All shells recycled in the program are released into the Delaware bay after they are cured
 - There is still a need to line up future funding
 - Shell is currently available for purchase for local restoration projects and oystermen through PDE

- Will need to look into other locations to store and bag shell as the volume increases
- **D. Kreeger** also noted that AERS (Atlantic Estuarine Research Society), the oldest professional society devoted to estuary science in the world with nearly 500 current members, will be holding its 70th anniversary in the spring
 - The meeting will be hosted in Rehoboth Beach, DE in April ~5-7
 - Meeting at Sands Hotel with the welcome taking place at the Dogfish restaurant
 - Main local hosts will be PDE, CIB, and Barnegat Bay Partnership
- **Metthea Yepsen** (NJDEP) informed participants of an EPA grant on tidal wetlands working with Penn State reference data which allows for the visualization of averages for several different metrics
 - Currently collecting data on tidal wetlands and also looking at portions of coastal wetlands
- **J. Adkins** noted upcoming events
 - National Estuaries week on September 16-23 with events posted on Restore America's Estuaries website
 - Experience the Estuary Celebration in Wilmington, DE on October 11th
 - Delaware Nonpoint Source Program Meeting in Rehoboth Beach, DE Oct 24-26
 - National Estuary Program Fall Tech Transfer meeting in Boston, MA Nov 2-4
 - Coastal and Estuarine Research Federation Conference in Providence, RI Nov 5-9
 - Annual Board/EIC Meeting at PDE in Wilmington, DE on Nov 30
- **D. Kreeger** will poll STAC members for the next meeting to take place in December or January
 - Introduced newest STAC member, Daphne Munroe, Assistant Professor at Rutgers Haskin Shellfish Research Laboratory focusing on aquaculture and fisheries in the Delaware Bay

Adjourn

3:05PM