



**Joint Meeting of the  
Estuary Implementation Committee  
(EIC) and Science and Technical  
Advisory Committee (STAC)**

STAC Meeting No. 41  
Wednesday, 28 September 2016  
9:00 A.M. to 3:00 P.M.  
EPA Region 3 Office, 1650 Arch Street, Philadelphia, PA

**MINUTES**

**Attendees - EIC:**

Jen Adkins – PDE  
Ed Ambrogio – EPAR3  
Kelly Anderson– PWD  
Rhonda Manning – PADEP  
Megan Mackey – EPA R3  
Nesmarie Negron\* – EPAR2  
Ken Najjar\* – DRBC  
Irene Purdy – EPAR2  
Gregory Breese – USFWS  
John Kennel – DNREC  
Bob Scarborough – DNREC  
Jay Springer – NJDEP

**Attendees – Other**

Emily Baumbach – PDE  
LeeAnnHaaf – PDE  
Jim Eisenhardt – RK&K  
J.B. Smith – ACOE

**Attendees - STAC:**

Danielle Kreeger – PDE  
Hoss Liaghat\* – PADEP  
Dave Bushek – Rutgers HSRL  
Laura Craig – American Rivers  
Thomas Fikslin – DRBC  
Jeff Fischer – USGS  
Dorina Frizzera– NJDEP  
Heather Jensen\* – ACOE  
Josef Kardos – PWD  
Jerry Kauffman – DWRC  
Kristin Regan – EPA R3  
Alison Rogerson\* – DNREC  
Peter Rowe – NJSGC  
Kelly Somers – EPA R3  
Kari St. Laurent– DNREC  
Ken Strait– PSEG  
Elizabeth Watson – Drexel  
Andrew Ross\*– PennState (for Ray Najjar)

**\* participated by phone and AdobeConnect**

---

**1. Welcome & Introductions – Jen Adkins**

- 9:20AM: Jen Adkins calls the meeting to order
- JA: Brief overview of the day's agenda and informed attendees that the morning would be devoted to regular items, with discussion regarding the CCMP revision process to begin

at 10:30AM, where workshop data, survey results, and drafted CCMP Goals & Strategies that were shared prior to this meeting will be discussed in further detail

- Notes from previous STAC and EIC meetings are disseminated for comment
- New STAC member: Kari St. Laurent, Ph. D, Research Coordinator at the DNERR – St. Jones Reserve, DNREC

## 2. PDE Board Report and EIC Updates

- Jen gave an update from the September 1<sup>st</sup> PDE Board Meeting
  - This meeting had a focus on development, including the Experience the Estuary Celebration event taking place on October 6<sup>th</sup> (Deptford Township, NJ)
  - PDE submitted a comment letter in response to ACOE request concerning new streamlining regulations for Living Shorelines (shared in EIC/STAC meeting materials) - Any comments and concerns should be sent to Danielle Kreeger
  - The Advocacy Committee of the Board updated PDE's guidelines for advocating on issues related to the Estuary; provided more detail, examples.
  - Jeff Long presented updates on Oyster Shell Recycling program, recently launched in Wilmington, DE - PDE looks forward to launch in NJ, followed by PA in the future
- Emily Baumbach gave an update on PDE's NEPORT Habitat and Leveraging Results for 2016
  - At this time, results presented projects from PDE partners that have simply been submitted to NEPORT; A majority of these projects have been submitted and approved, but still waiting on final confirmation for all projects from EPA HQ
  - Submitted 2889 acres in total; Projects in DE came to a total of 1694.92 acres, 515 in PA, and 678.43 in NJ
  - By Project Type: 1410 agricultural land; followed by forest/woodland projects 821 (18 projects in total in forest/woodland category), followed by 531 acres of Forested Wetland
  - By Land Activity: Protection at 2363.62 acres, Rehabilitation at 410.89 acres, and Establishment at 112.50 acres
  - By technique: Land acquisition at 2366.94 acres, Stormwater/Runoff Controls at 397 acres, Planting at 112.495 acres; Other restoration techniques used included Fish Passage, Erosion Control, and Containment Removal/Remediation
  - Total Leverage – \$2.65 million (\$2.12 million cash, \$0.53 million In Kind)
    - By Source: ~\$8548000 by Private, \$726,000 by State, \$830,000 by Local, and \$242,000 by Federal sectors
  - Irene Purdy mentioned that there is a new EPA website for NEPORT(National Estuary Program Online Report Tool) and how EPA will be looking at how the site was used this year for tracking data and implementing changes to make the site more efficient and user-friendly for next year
  - Jen Adkins mentioned that leveraging projects are not conducted completely by PDE, noting that it is important to think about the CCMP as not just a function of PDE, but as collaborative projects taking place with partners

## 3. STAC Updates: Danielle Kreeger (PDE) provided updates on the Summit and Technical Report

for the Delaware Estuary & Basin (TREB)

- Summit (22-25 January in Cape May): 20<sup>th</sup> Anniversary of PDE
  - Theme: “Reflecting on progress, charting the future”
  - Confirmed Speakers: Margaret Davidson (Monday Keynote) and Ben Horton; Waiting until after elections to contact Cory Booker
  - 2006 White Paper from first Summit: Used to complete PDE’s strategic plan, this Summit will be a time to reflect on these accomplishments that have been highlighted
  - Summit Abstract Submissions: 107 Total (75 science talks, 17 posters; 14 outreach talks/posters)
  - There is currently still poster space available
  - Sessions will include the following topics:
    - Post Sandy
    - Estuary Restoration & Water Quality
    - Wetlands
    - Monitoring
    - Physical & Chemical Processes
    - Hot Topics
    - Living Shorelines
    - Marsh Enhancement Using Dredge Material
    - NJ Bayshore and Vicinity Resiliency Projects
  - Panels will include:
    - Wetland Monitoring
    - CCMP
    - DRWI
  - DK reviewed finalized sessions, panels, and moderators, and briefly talked through the general day-by-day agenda and reviewed moderators
  - She noted that poster sessions will be taking place on Monday and Tuesday and that PDE is still in need of:
    - 2<sup>nd</sup> moderator for Physical & Chemical Processes: *Kari St. Laurent volunteered to moderate with Peter Rowe*
    - CCMP high level panel members
    - Additional sponsors and vendors
  - In response to inquiries about abstract acceptance deadlines, Danielle mentioned that notifications will be sent out within the next two weeks by Emily and Sarah (PDE)
  - Jen Adkins pointed out potential CCMP-related sessions, including one a high-level panel presentation for which PDE seeks Steering Committee interest/feedback.
    - Monday evening session for CCMP-related discussion/input for which PDE is working with RK&K and Meridian; ideally, this will be interactive in nature, and not intensive (goal to receive additional feedback)
    - Danielle noted that there will be presentations on CCMP related topics throughout the Summit.

- Jen asked for feedback on ideas for a pre-lunch panel presentation on Tuesday with Steering Committee speakers. Suggestions included:
      - Focus on what the CCMP is comprised of and future plans for the revision process, and orienting people to this process
      - Tracing back on the evolution of the Summit over the years
      - Review of the congressional support and challenges, other accomplishments
      - Historical back drop displaying projects/accomplishments
      - 20<sup>th</sup> Anniversary: Providing an evolution of the summits, climate change was not on the radar then as much as it is now, beneficial for participants that are new attendees; Past, present, and future summit themes
- Updates to TREB (Technical Report for the Estuary and Basin)
  - Danielle highlighted which indicators (out of the 50 in TREB 2012) are the focus of the update, based largely to their nexus to CCMP revisions
  - \$32,000 allocated to 4 subcontractors with writing groups for each of the chapters that are being reviewed:
    - Penn State-Ray Najjar (Climate), Chapter 7: Climate Change
    - University of Delaware-Jerry Kauffman (Habitat), Chapter 1: Prioritizing public access points, land use/land cover, Chapter 5: Fish Passage
    - Delaware River Basin Commission (Water), Chapter 2: Prioritizing water withdrawals, Chapter 3: Dissolved oxygen, nutrients, contaminants, fish contaminants, emerging contaminants
    - Des Kahn (Living Resources), Chapter 6: Prioritizing Horseshoe Crabs and Atlantic Sturgeon
  - TREB contractors are currently pulling in data and will have figures and tables prepared in December, in accordance with this timeline:
    - Subcontractors will soon acquire their newest sets of data for the selected indicators
    - 31 Dec 2016: Have trend lines extended from 2012 report; Want to make sure still working with the most accurate trend lines, have them prepared and ready to share
    - 28 Feb 2017: Writing team update, coordinate writing and interpretation, updates to text coordinated with writing teams
    - 31 March 2017: PDE compiles draft, and shares with STAC, EIC, MACC, other authors for peer review; Will work with PDE on compiling first round of drafts
    - 31 May 2017: Incorporate review comments and finalize report
  - This is an update to the 2012 TREB and will act as a supplement (depending on how much content is changed; there is potential for writing and publishing completely new TREB if content is there to support the report)
  - Each of the subcontractors gave a brief update of their current progress in each of their sections:

- **Andrew (PSU; filling in by phone for Ray Najjar):** Has acquired the latest versions of climate variables, results currently not looking particularly different in terms of rates from previous reports conducted in the last several years, including air temperature, precipitation data; increasing at 1cm per decade for precipitation data that has been collected per each watershed location has been noted so far; team is currently in line to get data presentable by the end of December
  - People have signed up to be on the climate change writing team
  - Once ready to share data, bring together via email/conference calls to begin sharing the data
  - DK encourages teams to share data ASAP as it becomes ready
- **Jerry (UDel):** Responsible for Chapter 1 covering public access points, currently 1 for every 2 miles and mapping these public access points; Currently much more expansive data available on these topics than was available several years ago; Fish passage via NOAA databases; mapping population data (estimates for changes in the past mid-decade); economic work embedded in Ch. 1 update assumptions; also covering land cover and wetland habitat mapping
  - Will be on track and ready by the end of December
  - UD student assigned to assist (research assistantship via UD)
- **Tom (DRBC):** Water supply Chapter 2 covering new trends in water use. For chapters we are collecting data regarding DO, nutrients, emerging contaminants and the effects on water column, sediment surveys, fish tissue contaminant studies
  - We worked with with University of Maryland on a study of productivity in the Bay
  - Ken Najjar: Looking to update records on contaminants and water use up to 2014
- **Des Kahn** (Update given by DK since he was unavailable): Living Resources; Will likely need additional assistance with some areas of living resource indicators:
  - Oysters
  - Horseshoe Crabs
  - Sturgeon
  - Mussels
- Danielle reminded TREB writers that Emily and Sarah (PDE) are available assist support for e-mail follow-ups, facilitating meetings/conference calls, general questions

#### 4. CCMP Revision Process—Status and Timelines

- Jen Adkins summarized the CCMP revision process noting that so far in 2016, experts were engaged and public listening sessions were also held this summer (1 in each state); information and plans for workshops are underway and the next step to engage experts in

workshops to start drafting actions. Goal to post the plan for public comment by the end of 2017.

- Expert survey demographic results include 172 respondents; 76 organizations (8 core); 1933 actions, core partners produced 982 responses (951 partner)
- Contracting – 4 responses to requests were evaluated by PDE staff/board
  - RK&K selected for overall coordination/facilitation
  - Meridian Institute selected for strategic input on agency engagement
- Currently on PDE webpage, there is a Google Form available for additional input from the public (open-ended regarding each action area)
  - The Google Form can be viewed [HERE](#)
  - Available on PDE website: <http://www.delawareestuary.org/plan>
  - All can feel free to forward link out to interested individuals for additional feedback on CCMP revision process

## 5. CCMP Revision Process—Expert Workshop/Schedule

- Jim Eisenhardt (RK&K contractor for facilitation/coordination) talked about goals and assumptions provided by PDE in order to ensure efficiency, success, and participation/accessibility by the expert groups; emphasized the need to optimize expert time for prioritization of ideas
- Jim asked that partners provide any suspected conflicting dates for workshop timing to ensure accessibility for expert participants - Group identified several conflicts October 25<sup>th</sup> to the 27<sup>th</sup>
- RK&K has created 3 potential scenarios for EIC/STAC consideration
  - PDE will also be very engaged in all workshops (logistics, attendance, organizing documents needed)
  - Planning for equal time to be spent in locations over the three geographies (NJ, DE, PA)
  - Workshop schedules presented don't yet include a kick off webinar in late October or early November, Climate Vulnerability workshops, and/or additional webinar dates to accommodate low attendance, unanticipated heightened interest or inclement weather issues)
  - Climate vulnerability workshops are scheduled to be held at the end of the workshop timeline for data collected on refined action items can be incorporated into Climate Vulnerability Assessments; will use formal tools to conduct EPA vulnerability assessment to identify, analyze, prioritize, and reduce climate change risks
- **Workshop Schedule A** – 12 half day (~3 hr) workshops
  - Week Oct 31-Nov 4: Wilmington, DE + NJ Bayshore
  - Week Nov 14-18 (avoiding 17/18): Trenton, NJ + Philadelphia, PA
  - Week of Nov 28-Dec 2 (or next week): Norristown, PA + So. New Castle/No. Kent, DE
  - **Schedule A Feedback:**
    - GB: Notes that there are not necessarily even geographical distribution of topics as each location will have 2 half day sessions that discuss 1 topic (e.g.

- Communities + Habitats; or Waters + Communities)
    - Schedules with half day workshops may be an issue for people driving long distances for only a three-hour workshops segment; Might also be a huge issue for waters workshops since large topic overall, as well as certain habitat projects that will take much time for robust discussions
- **Workshop Schedule B** – 9 full day workshops to focus on one topic (same weekly schedule as described above)
  - Habitats: Wilmington, DE; Trenton NJ; Norristown, PA
  - Communities: So. New Castle/No. Kent, DE; NJ Bayshore; Chester, PA
  - Waters: Dover, DE; Philadelphia, PA; Camden, NJ
- **Workshop Schedule C**—Hybrid: Mix of A & B format
  - First two weeks reflect schedule A, last week is Sched C (full days at Dover, Philly, Camden on Waters)
  - Schedule Type Comparisons—Pros and Cons
    - Full days can be quite long, but offer more discussion
    - Full days can be strenuous for PDE staff
  - **Schedule C Feedback:**
    - Potentially moving the waters up in one or multiple dates noted to have a more even distribution. If waters are all in the same week, it may increase the likelihood that experts may not be able to attend since there is only a one week window for these workshops)
- **Additional Workshop Feedback (Schedules A, B, and C)**
  - Overall, there needs to be a more structured method for the spread of workshop schedules and locations
    - If there was strategic planning in order to choose these options, this needs to be evident in the workshop draft and why certain locations were chosen for particular workshop action areas(Ex: Did healthy waters experts notify that the last week would be best for workshop schedule?)
    - Currently appear as random decisions since there is no evidence in the plan as to how dates/times/location were tentatively chosen
  - The workshops will probably not be recorded; but summaries will be provided and notes will be taken throughout the workshops. Jim pointed out that, even if it was feasible, having webinars available for each of the workshop action areas might dissuade folks from actually showing up
  - There was also some discussion about making workshops remotely accessible; but with the level of interaction anticipated, that would not be very effective
  - There was a suggestion to make the kick-off webinar/youtube/video an option for people to view prior to attending to ensure participants will be prepared when attending workshops and know what to expect, which RK&K and PDE will explore
  - There was concern that half day workshops will not be enough time to get into meaningful, in-depth discussions, and inquiries into if there is a reason to keep a hard weekly schedule, or if there is flexibility in scheduling.
  - Jim noted that week by week data review of each topic and follow up summary may

- be more efficient than doing all analysis of workshop results
- It was noted that the NJ Bayshore might be a good location for Healthy Communities and Healthy Habitats, and similarly that the conversation of these topics (tidal wetlands, resilience) best suited for DE is more southern (e.g. southern Kent/northern Sussex, instead of New Castle)
  - A question was raised about habitat workshops and if more than 3 hours would be needed to cover all living resource issues (e.g. wetlands and others). A full day allows for potentially scheduling break out groups too. Multiple people expressed support for full day workshops.
- It was noted that if a participant wants to be engaged on all three topics, the extra travel might be too much; proposing a one-time meeting to discuss all 3 topics at once would address that.
- There was some discussion about having a more even distribution of topics over space and time.
  - Logistics of scheduling in a short time period, and somewhat limited capacity, is complicated; main goal of schedule is to respect participant's time – if chose to do 9 full days, perhaps the 3 extra days planned for webinars could be used to do a wrap up of all 3 topics.
  - A hybrid schedule (similar to C) that enhances and equalizes the time spent one each topic might be best
  - Geographic distribution – seems to be duplicative locations, such as Philadelphia is very similar to New Castle County in terms of participants who will be attending workshops at these locations
  - There was a suggestion to concentrate efforts on geographical locations, dividing topics by time; using 3 specific geographic locations to hold 3 full days for each topic
- There was support expressed for schedule C, but with concern about real participation numbers for each topic at the specific locations; and support expressed Healthy Waters full day workshops at centralized locations in each state
- It was suggested that a 2 workshop 2 topic schedule might work well
  - A more strategic geographic spread should include one workshop in the northern section of the region and one in the southern section of the region
  - Perhaps to fill in the gap topics via webinar would be beneficial
  - Hold a total of two sessions for each topic, provide the 3<sup>rd</sup> session as a webinar to make accessible to new participants as well as previous
- Tom Fikslin noted that DRBC is the lead on water, and agreed that a workshops targeting both Healthy Habitats and Healthy Waters would be very attractive to some individuals on the expert list
- Jen noted that the DRBA offices at the Delaware Memorial Bridge were used for Delaware Bay Oyster Restoration Task Force meetings and were a good location for people on both bayshores
- It was noted that full day workshops are probably best in terms of allocating the amount of time that will be necessary to achieve the end results; Might also be

- better to plan workshops to begin at 9:00am rather than 10:00am
- Jen noted that the goal is to use the STAC/EIC input collected today to quickly (within in the next two weeks) get the logistics set an out to invitees, to give folks time to plan for participation; there will be a follow up round of workshops to check back in and address Climate Vulnerability, details of which are still to be determined
- Danielle noted that Climate Vulnerability Workshops should also include linkage discussions
  - RK&K and PDE also plan to host a consolidated webinar to update and have available prior to each of the workshops. That webinar would refresh what the CCMP is comprised of, the goals and future of the plan, and could repeated or recorded to make it available prior to all workshops for all areas. Jim sought feedback on dates to not schedule webinars:
    - October 28<sup>th</sup> is Steering Committee Meeting
    - October 24<sup>th</sup> is EPA Retreat
- RK&K also plans to hold extra backup dates on workshops, in case of low attendance and/or too many people signed up for a single session, etc.
- At workshops, a facilitator will play a key role in keeping the group on track with agenda, will need to thoroughly clarify this at the beginning of the workshops to ensure participants will not be going in other directions and not using their time unwisely
- Workshop information will also be reviewed at the Summit, and give the opportunity to present the 3 upcoming dates on hold for the climate vulnerability workshops

Action items:

- *Workshops are tentatively starting in ~1-month, need to get dates on calendar ASAP to give experts enough time to prepare – full day workshops with topics spread across multiple weeks/months seems to be the group’s preference.*
- *PDE will continue taking input through **Friday, October 7<sup>th</sup>** to send out materials following Monday for the first set up upcoming workshops*

**6. CCMP Revision Process – Refining Goals & Strategies for Expert Workshops**

- Jen Adkins opened the discussion by providing further background information on expert surveys and public workshops results and how these have acted as a starting point for conversations to take place at the expert workshops
- Jen clarified that this information that will be used for the expert workshops and were items addressed by experts and the public on what is currently being evaluated as well as what is needed, information to act as a starting point for conversations at the expert workshops
- These items are also not specific topics that have been endorsed by PDE/STAC/EIC nor will any of these actions be guaranteed as information that will be included in the new CCMP
- Once reviewed, information will be emailed in advance to expert workshop participants to inspire thinking on these areas and act as a starting point
- These items will be presented at the expert workshops at the beginning in order to start the conversation, will also be sent out in advance of the workshops

- All current sheets being discussed are also available on SharePoint (Draft Goals and Actions, excel sheets with refined expert survey and public listening session data, potential partners and measures of success)
- Drafts are being reviewed for the following information:
  - Take out any errors and revise any misinterpretations
  - Adding any new actions and priorities that are crucial and are still not captured in the current drafts
  - Suggestions for how to present and use this information at the expert workshops
- These drafts simply act as a set of organized ideas and act as starting points for conversation at expert workshops, not a list of ideas that will definitely be used
- The organization of these draft goals and strategies were completed by PDE using the results of the expert survey and public listening session and following the drafted CCMP Table of Contents as a guide; Since Excel sheets include all data collected at a high volume of information, Word documents of draft goals were created to provide a more comprehensive approach to viewing the data and highlights popular trends and themes along with items of concern
- This data is still presented as a draft since many questions arise when viewing the results of the surveys/public listening session; Data was often not complete sentences, hard to decide if organization was saying they were already doing an action or if the action should be done and is not currently getting attention
- Drafts still need to be reviewed for errors, need to be emailed to experts prior to workshops; eventually will be presented, need to review and reword these phrases in order to get rid of any misinterpretations
- Experts attending the workshops will be the individuals going into great detail to formulate the best actions and strategies, does not need to be decided now
- **Healthy Waters Goals & Strategies**
  - Jen quickly reviewed the Healthy Waters ideas—Reduce impacts from toxics & nutrients, improve DO and ecological health, reduce impacts on flow
  - Discussion revolved around ‘reeling in’ workshop conversations, pinpointing responsible parties for actions, and crediting agencies who currently carry out certain actions
  - Need to also work out metrics for the tidal and non-tidal areas, needs to be more descriptive
  - **Notes on Toxics:**
    - Try to develop a better phrases or ‘buckets’ to categorize information in the toxics category
    - Perhaps using term pathogens to cover variety of these topics, instead of Cryptosporidium
  - **Notes on Nutrients:**
    - Nutrients are categorized differently than toxics based on the endpoints and standards that have been set
    - Implementing TMDLS – Has already been done with respect to certain

- nutrients, dissolved oxygen is the current focus with other endpoints to be developed
      - Need to target whether something is a regulatory issue or something that an agency is already working on, then need to facilitate or acknowledge that actions are already be taken to improve these topics
      - These areas can also take into consideration what still needs to be done in addition to what is currently being covered as well as complete items that have no coverage at all
- **Notes on Flow:**
  - Trying to add value to what organizations are already doing can be very tricky with respect to water quality
- **Feedback on all Healthy Waters:**
  - Will be challenging to ensure that group will not spin off in other directions in workshops and will need to have a method to identify or acknowledge that people already have been working on certain projects; Want to use time as efficiently as possible
  - Need to make clear to participants that we want to find added value or information on what is already taking place
  - Conversations will be very frustrating if duplicative of what is already taking place or if the message comes across that PDE is trying to 'take over' what is already being achieved by other organizations
    - JE: Will be difficult to do an in-depth analysis of all topics for all actions, but attempt will be made to provide best resources for workshops
    - Best if phrased as what is already being done and how can PDE play a particular role to help achieve current projects (Ex: Don't want participants coming in saying we need to implement nutrient criteria for areas where it is already implemented)
  - List items similar to original CCMP with respect to column of responsible agencies to acknowledge what is being done and correct contact information regarding those areas, include the proper authorities to contact, have a sense of the 'go-to' agencies for particular areas
  - To make sure this is achieved in workshops, first begin by asking participants if anyone has already been working on current topics of interest and, if so, what are they currently doing? Workshop participants that do not have well-grounded ideas of what is already being done will need to have someone provide this information to them to help frame what actually needs to be done
  - Do not want to phrase anything in workshops for it to seem as though there already is a plan in place
  - Might be a good idea to start brainstorming a list of "challenge questions" that can be provided at the workshops to stimulate thinking and address the greatest areas of concern and work towards potential solutions

- Taking into consideration original CCMP since it is very well-designed, PDE is an umbrella organization coordinating of the actions
  - Note: This CCMP is focusing on a ~10 year plan, updating and checking in every 10 years, focusing on measurable goals and capturing these current resources and needs
  - Will still need to focus on what niches need to be filled, and will be helpful to ask workshop participants who should be responsible for taking actions covered
  - Very little on point sources in toxics category, even though these areas are well-covered, they should still be touched on in CCMP
  - Need to be more careful with word choice when discussing CSOs/stormwater management; Taking into consideration CWA, how this plays into regulations, final measures are made based off the state regulations have already deemed appropriate
  - Using the 'regulatory framework' needs to still be reworded for CCMP, boil down the bold text used (Ex: Can't simply say to 'eliminate' certain toxics in CCMP)
- **Healthy Communities Goals & Strategies**
    - Jen quickly reviewed Healthy Communities ideas —Promote healthy growth and resilience; improve public access & recreation; improve understanding & participation
    - There was a question and some discussion about what kind of green infrastructure is meant in ideas; Jen noted that this might have to be detailed/discerned later
    - There was a suggestion that outcomes in workshops be clearly stated to help keep conversation circulating around key points (Ex: We are only looking for certain # of actions, etc.)
    - Framing might be key to keep conversations on target; phrase actions as questions; e.g. would standardized restoration techniques help? (Challenge questions, rather than brainstorming or discussing specifics of techniques, etc.)
    - Part of conversation needs to target priority items and who might be responsible for carrying them out
    - Can have a rating system in the workshops for the experts to rank areas that will be priority items
    - Jen noted that PDE has assembled a small healthy communities team (as many STAC, EIC, MACC folks are mostly water and habitat experts) to assist with these action items since HC can use more input; Team will provide input/advice, link to education network with William Penn Foundation
    - PDE staff will also participate in a wide range of outreach and education aspects for CCMP planning
    - Some concern was expressed that rural communities don't seem included, leading to conversation on how communities are characterized/ how they identify

- themselves: rural, urban, industrial, working, leisure (vacation)
- Overall, there are many areas presented in the draft that do not cover much detail
- Huge focus on resilient coastal/waterfront communities as a good idea
- Need to have a discussion on what the outcome of these workshops should be ahead of time before making the draft actions, prioritizations, voids that need to be filled
- Overall, the goals and strategies need to have more structure rather just providing information to spark initial reactions to these lists, including what habitat conditions are needed, what types of restoration techniques should be used, where are the current gaps in restoration
- Need to take steps towards creating agendas and the materials that need to be provided at the workshop
- Urban waterfronts is mentioned heavily in actions and highlighted in goal while rural areas information is scarce and could have some more focus since areas also face many issues
  - JA: Language for representing coastal communities was chosen since urban waterfronts might not think of themselves as coastal communities, trying to accurately cover this area in goal description

Consider separating rural and urban waterfronts, within coastal communities large spectrum (beach, residential, vacation homes, working waterfronts, rural) to cover all categories

- **Healthy Habitats Goals & Strategies**

- Wetlands and Forests
  - Consider presenting actions at workshop to use current CCMP actions to amend, replace, edit to focus on new or changes to existing actions
  - Try to prioritize issues perhaps by what is critical to our understanding of climate change now and list a couple more based on criticalness in the next 5-10 years
  - In response to a question about how to incorporate climate change into all these topic, individually, or as its own topic, Jen noted that she envisions climate change be discussed in topical workshops, as well as in the follow up workshops where goals/actions will undergo climate vulnerability assessment. It was suggested that individuals with an eye on climate change be invited.
  - A prioritization scheme should also include issues that are important which are not currently 'covered' by an agency in the estuary
  - More emphasis on migration of wetlands was suggested
- Shellfish & other aquatic fauna (Horseshoe crabs, shorebirds, fishes, etc.)
  - Conversation circulated around how to keep action items discussions on topic Greg Breese suggested that historical context may be necessary for habitat restoration (e.g. SAV) and there was some subsequent discussion of SAV (Some believe SAV is not extensive and is unimportant in the Delaware Estuary, therefore not a priority for CCMP. Others believe SAV is underestimated and needs more study here, especially in the upper system. )
  - Shad is not covered as much as it would have been expected in this draft, look into covering this area more thoroughly; Add shad for measurable goal?

- Consider including additional species; can also work on strategies to link to and pull in other areas/species as well
- PDE will not be the driving influence on fish population and monitoring research; will be relying on others for the majority of expertise on this
  - Atlantic Fisheries project currently has high volume of data that can be used and has already been processed
  - Jen noted that this section, more than others, is still somewhat uncertain and broad but specific at once; needs more direction (especially in regards to fish)
  - Danielle noted that one of the reasons shad didn't make it onto a list and sturgeon did is because of multiagency efforts related to its endangered species listing; would like to see more umbrella species (i.e. those whose restoration efforts would have the greatest effect on other managed species)
- Some areas in this category are very robust, while others seem to be quite minimal
- Using the term 'critical habitat' for sturgeon is not recommended; Wording will make a significant difference on how it is perceived; need suggestions for alternative language
- John Kennel asked if we have enough emphasis on amphibians, reptiles and other nongame species?
- There was a suggestion that the living resources section of CCMP be reflective of the TREB; the STAC spent much time deciding what indicators should be in the TREB, so wouldn't it make sense to use that effort for the CCMP?
- Need to look carefully at addressing wetlands data and interpreting statements about permitting and making sure they are accurately depicted
- Potentially using word clouds in some form at the workshops to spark thinking?
- It was suggested that PDE emphasize that these are just ideas, and be careful not to give the impression that we already have all of the necessary information compiled to create the revised CCMP
- Take a more in-depth approach to covering species responses to salinity/nutrient levels
- Some strategies to highlight climate correctly and most accurately were discussed.
- Jen noted that forests as a second area that hasn't been a big direct focus for PDE, which is why a small Forests team has also been assembled involving people who specifically work on this area (TNC, NLT, Pinchot Institute)
  - Forests are a big part of DWRI and the William Penn Foundation, and we should be looking to link these current projects with CCMP revision
  - Forests are also a significant part of leveraging data collected by PDE from the agencies, although the forestry experts in those agencies don't necessarily participate in the estuary program

Action items:

- *PDE will make any clear/specific changes identified; any other specific changes to the document previously emailed around should be emailed to Emily Baumbach by **Friday, October 7<sup>th</sup>***

## **7. Fall Steering Committee Meeting**

- Jen Adkins initiated a discussion of potential agenda items for the Oct 28<sup>th</sup> Steering Committee meeting
  - Update on CCMP revision & review what approvals may be necessary
  - IP: Citizen Advisory Committee - report back to Steering Committee on how we envision moving the CAC discussion forward
  - Feedback on what role Steering Committee would take for regulatory actions, estuary program, regulatory responsibility
  - Many older CCMPs had memorandums with state agencies, these may need to be updated; CCMP may need to be reviewed for consistency with state's coastal programs, especially in terms of regulatory changes; Ensure CCMP is codified by state's regulatory agencies
  - What is the plan for navigating the approval process (what signatures, who reviews, approves, etc.)? No longer a formal responsibility of the Governors to sign off, so approval is up to EPA and the Steering Committee
  - Should there be an agenda item to discuss Delaware River Conservation Act, and how changes in congressional structures will affect it? There may not currently be answers to questions on this subject, we will need to come back to it at a later time

### Action items:

- *PDE will utilize feedback to put together and circulate the agenda for the Steering Committee meeting on October 28<sup>th</sup>.*

## **8. Other Business**

- Other Updates included a couple of EIC staffing changes:
  - Lori Mohr is leaving PADEP, with Rhonda Manning taking over
  - Anne Witt is retiring from NJDEP in early 2017
- Irene, Megan, and Jen have been working on a document that explains how the NEP is organized
- Danielle made a motion for STAC to approve June 20<sup>th</sup> meeting minutes, which was accepted/confirmed, and Jen confirmed consensus on EIC notes.
- JB Smith from the Army Corps of Engineers gave an update on the Delaware Estuary Regional Sediment Management Plan
  - From 2013, Steering Committee supports the plan and the participation in a workgroup for upholding the plan
    - Following up on restoration projects that involve sediment budgeting to find ways to facilitate the management plan
    - Recommendations on action items and how those recommendations can be implemented

- Regional Sediment Management Workgroup would like to have a larger presence in the CCMP revisions
- JB asks that all agencies continue to support the RSM and consider how it can be incorporated into other actionable items, implementation moving forward
- Projects to enhance regional sediment management in Delaware Estuary, meets quarterly (dredging team that also meets quarterly)
  - Focus areas on northern Atlantic coast: Comprehensive study targeting flooding, inundation, solutions using sediment
  - How to implement regulations, evaluate contamination of sediments
  - Would like to integrate current research and implement workgroup to help develop CCMP
  - Current studies include looking at how sediment management can be used to ameliorate issues with inundation and flooding (mostly back bays/lagoons); interests exists to focus these types of studies on the Delaware Bay/River
  - Danielle asked for a current list of RSM workgroup members so that invitations to CCMP workshops can be extended
  - Heather Jensen suggested looking into the many funding opportunities that may be available, in addition to looking at competitive national funding opportunities by the Corps
- Jen and Danielle noted that CCMP revisions will likely include an item to implement the RSMP, rather than duplicate its strategies/actions in the CCMP.
- Tom Fikslin reported on a grant received by DRBC from the William Penn Foundation, “Modeling eutrophication processes in the Delaware Estuary to link watershed efforts to control nutrient impacts”
  - Still need to calibrate the model and evaluate different but still achievable target levels of dissolved oxygen, how to select the final criteria, protective of propagation
  - A eutrophication model selection committee has and will convene to discuss the best model, how to collect data, and calibrate model for eutrophication
  - One parameter of this study is dissolved oxygen, which is sometimes still an issue in the estuary relative to current criteria; a goal is also establishing new criteria for DO
  - In response to a question about if the model will be robust enough to look at habitat effects on eutrophication, Tom noted that the Corps has used 1 and 2 dimensional models; this new model will have extensive, coverage including the coast
  - Jen suggested more conversations on this subject at other meetings
  - Tom noted that DRBC’s Water Quality Advisory Committee is discussing these issues, with respect to DO

### **3:15PM Meeting Adjourned**

*Please mark your calendars for:*

- *Dec 1<sup>st</sup> – Joint Meeting of the PDE Board and EIC at PDE offices in Wilmington*
- *Jan 22-25 – Delaware Estuary Science & Environmental Summit in Cape May*