



# Science and Technical Advisory Committee

Partnership for the Delaware Estuary:

A National Estuary Program

[www.DelawareEstuary.org](http://www.DelawareEstuary.org)

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## 27<sup>th</sup> STAC Meeting

Tuesday, January 8<sup>th</sup>, 2013

9:30 A.M. to 2:30 P.M.

Partnership for the Delaware Estuary - Wilmington, DE

**Sue Kilham** (Chair) – Drexel University

Gregory Breese – USFWS

David Burke – PADEP

Lance Butler – PWD

Dave Bushek – Rutgers HSRL

William Eldridge – Stroud Water Res.

Tom Fikslin – DRBC

Jeff Gebert – Army Corps of Engineers

Desmond Kahn - DNREC

John Kraeuter – Rutgers HSRL

Jerry Kauffman - Univ of Delaware

John Kennel- DNREC

John Kraeuter – Rutgers University

Danielle Kreeger – PDE

Jerre Mohler – USFWS

Megan Mackey- EPA Region 3

Tracy Quirk – Academy Nat. Sci./Drexel

Renee Searfoss – EPA Region 3

Ken Strait - PSEG

Jeff Fischer - USGS

David Wolanski - DNREC

**1) Call to Order & Introductions** – Sue Kilham, Chair

**9:30 – 9:40**

**2) STAC Updates** – Sue Kilham

**9:40 – 9:50**

- Sent around minutes to review from 10/1-10/2/12<sup>1</sup>
- No changes to agenda
- Introductions

**3) Goals and CCMP Updates** – Danielle Kreeger, Priscilla Cole

**9:50 – 10:15**

- Thanks for all those who helped in STAC/EIC meeting to set measurable goals for the Delaware Estuary Program
- P. Cole shared results from the scoring sheets
- PDE incorporated all input from the STAC and EIC to create a revision, and a selected subset were then highlighted for consideration by the Steering Committee in October
  - Healthy waters: 10 goals were taken up to Steering Committee; and none were accepted
  - Part of the problem seemed to be that the water goals had become too

<sup>1</sup> Meeting minutes were circulated for preview and hardcopy will be passed around for edits at the meeting

<sup>2</sup> See draft of STAC DO Brief, sent by email for preview

<sup>3</sup> Draft article by Des Kahn for Estuary News to be shared in STAC meeting

<sup>4</sup> ALS Hurricane Sandy Assessment Report 12/17/12, sent by email for preview

- lumped - may need to break out goals into more detailed goals so they are more clear, appropriate and measureable with different tactics
  - Healthy Communities: 4 goals were posed to Steering Committee, and they accepted all 4
  - Healthy Habitats: 6 goals were posed, and all were accepted
- Steering Committee had some exceptions and caveats: need to document assumptions and needs for actions needed to accomplish the goals. NJDEP also noted that they want to take a closer look at how the goal effort would affect their programs. The SC also asked that we define brownfields. In healthy habitats, EPA asked for a note be included to clarify that EPA canoe solicit funding for oyster shell planting
- Priscilla Cole will now work with the various goals subgroups to come up with revisions for the goals that were not accepted, plus include a column in the table to summarize key actions and assumptions. Contact Priscilla if anyone has any issues or comments.
- Presentation will be emailed out to STAC along with Jen's table from S.C.
- The STAC noted that Jay Springer from NJDEP should be contacted to help facilitate internal NJDEP review and decisions about the goals that they need to study more
- **Action Item – ask Jeff Springer (NJDEP rep to the EIC) or Dorina Frizzera (NJDEP STAC rep) to summarize NJDEP stance/decisions about earlier goals by next STAC meeting.**
- CCMP Updating Results: Summary data from the EIC/STAC workshop were compiled regarding which CCMP actions need deleting, updating or adding. In summary, the consensus was that:
  - Habitat and Living Resources: 3 actions need updating (H4,5,7)
  - Education and Involvement: 4 actions need updating
  - Water Use management: 7 need updating
  - Toxins: 1 needs updating
  - Monitoring and RIMS: 3 need updating
  - Land Management: most need updating
  - Uncertain on how to do updates as of now; working on strategic plan currently and this might be done concurrently or after; stay tuned
  - STAC: should look at CCMP when looking at goals; instead of trying to update CCMP why not use goals to “re-write” a CCMP? PDE staff noted that there is no budget or interest in doing a complete new CCMP edition – rather, the likely model will be to prepare an update as an addition to the existing CCMP that focuses only on the changes

**4) 2013 Science & Environmental Summit – Lisa Wool, Danielle Kreeger 10:15 - 10:40**

- Elizabeth Horsey: 192 currently registered, on par with past time
- 70 unique organizations are registered
- Still expecting 300 people to attend at end
- Monday night dinner has been added back into the schedule, that is the only change

- Late registration goes up on the 18<sup>th</sup>, so please register by then
- Judging: Greg Breeze, Jeff Fisher, Danielle Kreeger, Tom Fisklin, Renee Searfoss, John Kennel, Dorina Frizzera, Sue Kilham
  - Difficult to volunteer for moderators and during polling and not time to network
  - If everyone could at least take a form and do one or two; not needed to sign up for specific talks/posters

## 5) Dissolved Oxygen<sup>2</sup> – all

10:40 - 11:10

- EIC asked STAC to present
- D. Kahn, S Kilham and D. Kreeger worked up; E. Silldorf; Dave Wolansky, Jerre M.
- This was started in February 2012; goal is to finish by end of January
- DRBC can add final comments by end of January – Tom F.
- Should be more fish species; possibly Alewife? (but is there data available?)
- Don't need a long list but if there are data out there we should include them.
- The long term D.O. is what is the key
- Look at Chesapeake Bay program, but they end their criteria at June 1, right before it gets hot
- Just reference other species but keep the key on the "signature species"
- Should finish by EIC meeting if not by Science Conference
- Recommendation might want to include guidance on how to determine "continuous"
- Regulatory standards are often weak on methodology
- Should lay out methodology that would be recommended
- Should include designated use change and long term goals which would bring in other species
- The internal standard is important for the yoy sturgeon
- Suggest a hypothesis and then talk about what it would take to answer the question about yoy and larval sturgeon
- Should include research and the call for further research, including ammonia
- DRBC's plan: update designated use then up highest attainable use
  - DRBC also working on eutrophication model currently
- Climate change should be mentioned in the brief as well
- **Actions:**
- **Should include summary of process- Tom F will write**
- **Including other fish work with Jerre Mohler**
- **Goal: early March be done, Danielle will coordinate revisions**
- **Renee Searfoss would help with process and talk with Denise C.**
- **Dave W. and Jeff Fisher and Greg B and John K will help review**
- **Include some temperature/salinity/% saturation data**
- Other considerations: flow, climate change
- The goal is to coax the powers that be to change the DO criteria
- Highlight that progress was made but is sliding back currently

- **Is Des's paper online? PDE should put up on website. Tom will get Dez comments on that**

**6) Urban Stormwater Impacts on Living Resources - Leander Lacy (NJ TNC) 11:10 – 11:30**

- TNC: Delaware Estuary and Chesapeake are specifically looking at green infrastructure to manage urban storm water runoff
- TNC is setting goals currently
- How does storm water runoff affect DO? Literature from the west coast exists, but not locally
- Incorporate CSO's in "run off" for this discussion
- Significant impacts on fish from possible run off – see Jim Uphoff's paper
- [LLancy@tnc.org](mailto:LLancy@tnc.org)
- DK: for fw mussels, fine sediment runoff and accumulation is critical, which links to storm water runoff
- Does urban storm water pose a threat to people and nature? Comments:
  - Trying to augment MS4's, currently trying to figure out where TNC fits in
  - PWD is working hard with their green structures program,
  - Sue was involved in Valley Creek and will send Leander a copy
  - Freshwater tidal wetlands and the effects of smothering of trash that is impairing the wetlands, related to storm runoff events
  - State of DE bought houses that were impacted by stormwater run off (in Red Clay Creek, Newark)

**7) Impingement & Entrainment - all 11:30 – 12:00**

- Estuary News article<sup>3</sup> - Des Kahn
- There has been a lot of discussion
- Does the STAC want to do a white paper on this discussion? No consensus.
- Delaware Estuary is an industrialized waterway, and there are multiple intakes along the river
- No one is looking at the cumulative impacts of the yoy and juvenile fish populations with all the impacts together
- Previous study done in the Hudson River, which looked at worst case scenario and looked to establish compensation
- The point of the article is that there is no cumulative regulation on fish kills
- What is missing is a proper ending to the article, should conclude with that there needs to be future study but that we do have some good healthy populations
- PDE does not want to shy away from a discussion about topics that might be difficult. We believe there is enough evidence to do the story but note that there are some unanswered questions (are we actually seeing lower fish populations because of). **Dez will add to the end**
- Ken S.-Not problem with saying there is a need for cumulative data, but using old data is not a good use and there was evidence that that old data was flawed and

there is new 2000's data.

- Possibly call for an estuary wide need? But juvenile abundance trend can tell you that
- EPA and DRBFW Co-op is on the hook for working with regulations, perhaps wait till Jerre M. is around to talk with
- Delaware Legislature has supported closed cycle, and that should be put into the article possibly
- **Jerry K.** volunteered to add context to the article, **maybe put a call out box to add to the article** or a second article??
- Renee concerned about consensus, and don't want to put something out to public if don't have consensus
- Contesting validity of Des's study, the article and it's message is clear, some of the details within it are what is being contested
- **Danielle will ask Jen to give changes to STAC to review again**  
*[Follow-Up Note: The article was extensively revised by Des and PDE staff, vetted again to STAC, and Jerry K added a second article to talk about regulatory changes. No significant negative comments were received by PDE after the issue went public]*

Break for lunch

12:00-12:45

#### 8) Hurricane Sandy<sup>4</sup> – all

12:45 - 1:30

- Sharing of impacts, observations, studies, future needs
  - ALS- did report to USFWS did a quick analysis of needs
  - With the abnormal weather conditions over the last few years, are there things that STAC should be focusing on? What should we be going in the future?
  - Would be nice to have a collective wish list from the STAC regarding scientific studies, monitoring needed to look at climate resilience, science
  - PWD- storm has made top level impacts on how PWD thinks about the future, CSO's, localized flooding. A formal committee is formed on Climate Change under the department
  - In DE bay/river 2011 was way worse than Sandy
  - State of NJ asked for approval of city sludge to import that affected BOD
  - On DE side, the 2008 Nor'easter was more intense
  - In BB- they ran new shoreline satellite LIDAR just before and after Sandy- Jeff Fisher
  - Dorina- LIDAR done for Sandy, Rutgers agreed with USGS to do ground truth
  - NJDEP was asked for needs and put in the need for shoreline erosion and accretion state wide
  - On Maurice a dike got busted through for Sandy, which could cause Bivalve to have issues
  - Fortescue is having large issues with slips and houses being lost
  - Is there a list of issues in the Delaware Estuary side? Sarah Dunkin from EDA went around and is coordinating stuff from Federal agencies. She asked for a

short list.

- There is a federal funding opportunity from ACOE that are recovery projects that have natural resources spin. Could talk about Maurice River. SAGE? **Dorina will send info**
- Clams in BB have had no significant damage, other than at one site that is near inlet that is having a viral spike that has closed the fishing there
- **If you have specific ideas or issues that need to be elevated due to Sandy please send them to Priscilla**
- Is there a brief addendum that could be added to DK's and Ray's report, possibly do new report? After new IPCC at end of year. Global changes will affect us: blocking high's changes our regions weather (NOAA NAO)

## 9) Tasks and Updates

1:30 – 1:50

- Regional Sediment Management Review (comments due 1/15)
  - Most STAC have read RSM, the rest plan on reading it
  - If you cannot provide comments, let Danielle know before the 15<sup>th</sup>
  - John Kennel- has concerns about economic loading, did not see it in the RSM
    - Regional Dredge Team could be a better group to discuss this issue
- Workgroups:
  - RRWG: Had meeting, are working on reviewing and are elevating projects to ACES
  - MACWA: had meeting, have funding through 2013, working through issues with continuous funding, Meeting March 6<sup>th</sup>.
  - F&W Coop: Had meeting with policy board about American Shad management plan. Presented funding needs. Discussed DO criteria, writing to DRBC to express concern.
  - TAC: Meeting on the 16<sup>th</sup> of January, Dioxin Fx data have been worked up and to be elevated at next meeting
  - WQAC: meet on Dec 12 with the model experts, will look at interim measures including DO, around March.
  - MAC: next meeting on 9<sup>th</sup> of January, proposed monitoring for 2013, and recommendations from model experts to add parameters
  - Train derailment: Vinyl chloride was released, a model is in place to predict what might happen, it was a spring tide that could put it close to water intakes. DRBC collected water samples, worked with NOAA modelers, the highest measure was 480ppb at the mouth of the creek, took 3 weeks for center of toxins to move down bay, in previous work there was no vinyl chloride background, there was a little in the sediments after the spill and some into the air, very little aquatic life effects known
- New Freshwater Mussel Workgroup – Danielle Kreeger
  - Originating from the DEBI project and benthic workgroup, once formed this new group will focus on interstate coordination, engaging state conservation staff. Something similar is happening in Chesapeake bay. **If anyone is interested let**

**Danielle know.**

- RARE proposal- possibly do 5 yrs later for DEBI
  - EPA R 3 has started to run up the flag pole the possibility
  - There are many products that could be followed up on possibly, SAV, Mussels
  - **IBI from NCA, Hartwell Tom F. will get to PDE**
  - DEBI did not cover, hydraulic escalator, (deep dwelling species) going 15 inches down at least (PWD did that from Trenton to Commodore Berry Bridge)

**10) Upcoming Events and Notices**

**1:50 – 2:00**

- MAC meeting January 9<sup>th</sup>
- February 21<sup>st</sup> or 22<sup>nd</sup> Co-Op in Hancock NJ
- Virginia Marine Debris February 27, 28<sup>th</sup> (**Renee will provide link**)
- AERS will meet in Williamsburg
- Stock assessment February 11-13
- NSA/WAS- February 21-25
- STAC Bulletin Board – you can add or you can give to Priscilla Cole

**11) STAC Business – S. Kilham**

**2:00 – 2:15**

- Minutes are accepted with minor edits
- March/April will be elections, think about if you have anyone to nominate

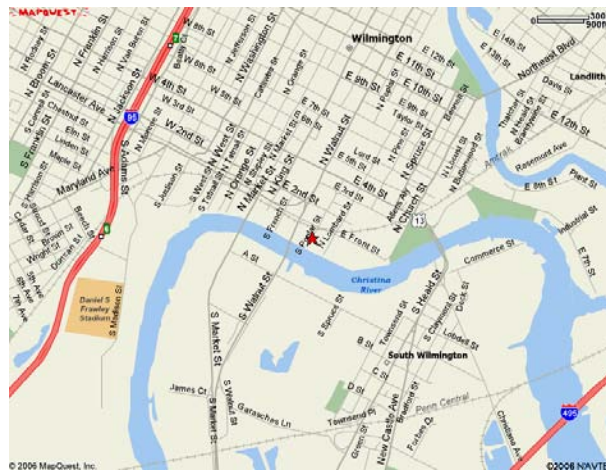
**Adjourn**

**2:15**

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For additional information, please contact **Danielle Kreeger**, Phone: 302-655-4990 x104, email: [DKreeger@DelawareEstuary.org](mailto:DKreeger@DelawareEstuary.org)

A map and the STAC membership follows below. If you have any travel or parking problems the day of the meeting, please call Danielle's cell phone at 610-329-0055.



**Location:** The meeting will be held in the conference room at the office of Partnership for the Delaware Estuary, One Riverwalk Plaza, 110 South Poplar Street, Wilmington, DE 19801  
The PDE office is on the second floor.