



Science and Technical Advisory Committee

Partnership for the Delaware Estuary:

A National Estuary Program

www.DelawareEstuary.org

19th STAC Meeting Minutes

Wednesday, December 15th, 2010

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

Partnership for the Delaware Estuary - Wilmington, DE

Attendees:

Sue Kilham (Chair) – Drexel University

Gregory Breese – USFWS

Lance H. Butler – PWD

Alan Everett – PADEP

Tom Fikslin – DRBC

Jeff Gebert – Army Corps of Engineers

Steve Hughes – Cheyney University

Desmond Kahn - DNREC

Jerry Kauffman - Univ of Delaware

John Kraeuter – Rutgers University

Danielle Kreeger – PDE

Ken Strait - PSEG

David Velinsky – Academy Nat. Sci.

Eric Vowinkel - USGS

Non STAC:

Priscilla Cole – PDE

Angela Padelletti - PDE

Laura Whalen – PDE

Sherilyn Morgan – EPA (alt. for Searfoss)

Gerald Bright – PWD

Andrew Homsey – Udel

Jessica Sanchez – DRBC

Jay Springer – NJDEP (alt. for Belton)

1) Call to Order & Introductions

Minutes were sent around for edits and minor corrects were made. John Kraeuter's name was misspelled again. Items were added to the agenda by Danielle: PDE measurable goals update, and updates from other non-STAC committees which STAC members serve on.

PDE Measurable Goals

A document was passed around showing PDE's draft measurable goals, which included previous STAC feedback. These goals will be a topic of discussion at the next Steering Committee. Any additional comments from STAC members should be submitted by early January to Jen Adkins. Lance Butler asked if a measurable goal could be created for implementation or creation of management policies, such as salinity criteria, nutrient criteria, pesticides & herbicides criteria. The Steering Committee will meet in February, and many of the details will be tackled after the Steering committee agrees to these goals. Some of the policy issues could be discussed at that time, and STAC is encouraged to recommendations on policy issues. For now PDE needs general comments on this presentation to the Steering Committee.

There was some concern about the goals document section on redeveloping access under Healthy Cities and Towns, because as it reads, there is nothing about restoration. No net loss is mentioned under that goal, but a bulk head could achieve the goal as written. Jen reminded the group that the CCMP is not strictly about the ecosystem and there are many human goals such as creating access. Goals for getting people

involved, gets them to care more about the resource. The recommendation was made to add language about restoration and 'greening' to the public access goal. **Action item:** The STAC was asked to offer specific suggestions for wordage changes.

In the goals document, restoring striped bass and shad were mentioned as target species to improve. It was noted that the restoration of these species is potentially at odds, and that the factors affecting fish are out of the estuary program's control, so maybe they're not the best examples of goal species. PDE picked these as example species for the goals document.

The STAC wanted to know what the purpose was for commenting on this goals document? Should STAC carefully consider the goals from their agency's perspective? This document was the product of consensus from EIC and STAC meetings; however Jen will carefully consider any feedback and likely incorporate it still for the Steering Committee.

2) STAC Updates

DRBC Updates

Action Item: The STAC agreed to do a brief on the shale drilling, to be used when PDE is asked to give comments on this issue.

DRBC created draft regulations on natural gas drilling. An official comment period hasn't started, but will be 90 days, closing on March 16th. They expect potentially thousands of comments, so all comments are asked to be submitted through the DRBC site, using the NPS electronic PEPC system. A draft fact sheet was passed around. DRBC has regulations on water withdrawals, and buying water from different sources. The most contentious issue is the well pad citing requirements; New York has regulations on high volume fracturing already. Some debate about the role of the states v. DRBC regulations. DRBC wants plan development for lease holdings, so that the first 5 wells can be individually reviewed, but after 5, a company needs a natural gas development plan. This plan is not an EIS, but a plan to get approval to drill more wells by DRBC. The plan requires submitting a circulation plan for roads and infrastructure around the wells. There are no maps of lease hold areas right now, so as this process continues, DRBC would like further development to occur in previously cleared/altered areas. The following pre and post project monitoring will be required by the natural gas development plan: water quality, biological indicators, groundwater monitoring around each of the well pads. Annual reports will be required and data will be accessible online.

The states are in control of restoration requirements after the wells cease to function. DRBC welcomes public comments on the issue of when a well ceases to function.

What is the collective impact of these wells? Is there any talk of a mitigation plan? Insurance and financial plans require bonds of \$125,000 per well. Samples must be provided for all fracking fluids.

Another issue brought up is the noise pollution impacts on wildlife from drilling activities. Danielle told a story about deer hunting and hearing some of this activity.

There will be at least 3 public hearings through the process of creating regulations for drilling.

PWD is asking agencies to become members of the Delaware valley early warning system for spill alerts.

NPS with USGS is installing WQ monitors at Montague and Callicun, and several remote and smaller creeks.

PDE would like the following topics covered in a STAC brief on drilling: water quality, water quantity, forest, where the waste products are going to be treated (in the Estuary area). **Action Item:** People who volunteered to help with the brief: David Velinsky, Lance Butler, Sue Kilham, Danielle Kreeger

Updated Toxics Advisory Committee (TAC)

TAC updated the water quality criteria from 1996, and extended the criteria to the Delaware Bay. This meets an action item of the CCMP to extend the criteria to zone 6. TAC had a public hearing in September, and 2 comments were submitted in total. All of the human health criteria were lowered by a factor of 3, with the exception of PCBs. A question was asked about pesticides. In the week after the science conference, there will be a meeting on drilling.

How can STAC find out about these public hearings? PDE could do better to advertise on the STAC website. The TAC maintains broad representation and meetings are posted on the state registers.

Action item: Add nutrient update and MAC to next the TAC update. Create a bulletin board page for STAC members to alert about these meetings. (An interactive google calendar was since created on the STAC meetings page to meet this need).

Science Conference Updates

The website for the conference was shown and the agenda was reviewed. Registration numbers are doing well. Sponsorship is a little behind from 2 years ago, but good overall. PDE is not going to print full abstracts in the programs, but abstracts can be downloaded online, and abstract booklets will be available at the conference. The question was asked if PDE could make the abstracts available by CD, or individually available on the website. These items must be considered with the budget. Registration rates have still be kept low, although there was a slight bump in the price. PDE's SAN Coordinator, Tom Davidock, is getting a webcast location in the Reading area to include a large number of participants from SAN who can't attend the conference. STAC members are ambassadors of the Estuary Program and are encouraged to attend and network with other sectors at the conference.

Note that there is a new size for the poster boards 4ft x 6ft. If you know you're bringing extra posters or materials, please email Angela. Today (12-15-10) is the last day of the cheap rate for the Science Conference.

NRDA Workshop

At the NRDA workshop, topics were covered including: the RRI, the new Project Registry, Leveraging NRDA funds with other efforts, and how to achieve restoration sooner. PDE is currently preparing proceedings from the workshop, and will send out to the STAC. The next NRDA meeting will occur soon after the science conference.

STAC was shown a few slides on the new Project Registry, which is a one-stop-shop for restoration projects for the Basin. This is a tool for PDE, and a resource for potential funders. It's not just meant for earth moving projects, and is open to monitoring, science and research, and education and outreach. The Registry will assess needs in the watershed and use this information in Washington DC to make the case for national funding opportunities. Projects in the Registry are assessed for uplift, and gap analysis

where projects are needed. The deadline for PDE Alliance projects ends today (12-15-10). The RRWG will now begin a process of reviewing projects for the Alliance. After last year's Alliance process, PDE did a \$50K challenge, which drew in monies from a variety of organizations. It only takes 15 to submit a project, and the project benefits from greater exposure, and the possibility to get promoted by the ACES group. Only project requirement is that there be a nexus to restoration. Research projects are acceptable, for example, seeking funding to update NWI data for Pennsylvania. Laura gave a tutorial about how to submit a project, and how funders can search for projects. **Action Item:** STAC should submit projects to the project registry, and encourage others to do the same.

Wetland Workgroup

2010 was biggest field season ever for the estuary program. PDE is working with the Academy and the states to set up a monitoring network of rapid assessment and SET tables. We have a schedule to finish rapid assessments at the HUC 12 level through 2018. PDE currently has funding to do a subset of metrics, and is working to get funding to do more metrics at more sites. Barnegat Bay is involved now, and MACWA is growing. EPA's National Coastal Assessment should go into effect next year at the state level, and will tie in well with the MACWA work. There is a great potential for student research opportunities to observe these monitoring areas.

Benthic Workgroup

The DEBI data is moving forward with the help of UDel and PDE has a meeting with Bart Wilson from DNREC soon to pull in Delaware Benthic data. The goal is to have DEBI data ready to release by the science conference. FGDC requirements have held up the release of this data, and UDel is helping to get the data compliant.

Regional Sediment Management

Last meeting, STAC heard a presentation by the Army Corps about the RSM workgroup. 4-5 technical papers have been put together: sediment quality, sed quantity, beneficial uses, etc. Goal is to start small and get the science ready and to put some small projects on the ground. Dredge material is the biggest area to change status quo to affect sediment, but the RSM work extends to more than just dredge.

Oil Spill

STAC released an oil spill brief, which is up on the STAC webpage. Soon after this brief the Oil Spill Advisory Charter was voted to be renewed. A meet will occur 12.16.10, which Danielle Kreeger will attend. This meeting will address many of the questions raised by the STAC in the brief. The Coast Guard requested for another meeting to be held on Friday, Dec 17th. The Oil Spill Advisory Charter will release a report soon on its recommendations.

Fish and Wildlife Co-Op

DBFIT – The Army Corps hosted 17 Federal Agencies to discuss the Delaware River Basin. At the meeting, the Dwarf Wedge Mussel and its DO tolerance was discussed. The adult shad survey in the upper river will get funding again this year. The group formed an American Shad committee, to look at the sustainability of this fishery in the Delaware River. The Interstate Atlantic Commission is also requiring reports on the sustainability of shad fisheries, and they are involved in discussions with the Army Corps about timing of dredging and different species impacts. There was a public hearing on Atlantic Sturgeon to determine if it should be listed as an endangered species, and this is still open for public comment. Co-Op meetings now begin with an open session, and then the meeting closes to members only. The

next meeting is in March in the Trenton area. It is in the STAC's charter to have representatives on this co-op. What are the ramifications of listing the sturgeon for the Estuary? Critical habitat designation in the Estuary? Sturgeon projects is a gap area, as no projects exist to directly restore this species.

At the last meeting, 4 out of 5 state commissioners approved the adoption of regulations on gas drilling.

Action item:

Should STAC do a brief on shipping effects in the Delaware Estuary for Sturgeon, wave energy and erosion, etc.? This niche is not being filled by any other agency.

MAC Updates

The MAC has been involved in monitoring for natural gas. There was a million dollar earmark for USGS to do cumulative impact assessments for natural gas, using robotic instruments. Danielle might be interested in attending next MAC meeting. Who pays for biotic monitoring – drilling companies. **Action Item:** There needs to be better coordination of monitoring efforts for drilling.

Water Quality Advisory Committee

A presentation about DO history was passed around. The next steps for the group includes nutrients. The Nutrient Committee is a subcommittee of the WQAC. They are working on criteria on use, and propagation of fish and wildlife.

3) State of the Estuary and Basin Report Updates

Watersheds and Landscapes

Land use data for basin wasn't very good for the last report, so this group sought help from NOAA and obtained data sets for 3 years: 2001, 1996. The population metric will be completed in March. Impervious cover is being worked on. For state and federal protected land, they are looking at what needs to be updated, but there might be a new federal data sets available. Public access points haven't been looked into yet. Development pattern was on Jessica's list of metrics, but there was some confusion about why it longer appears on the list of TREB metrics. Point source discharges might not be a good metric for this section. Should point sources be better placed in the water quality section? Natural Capital might be moving up into this section. Andrew gave a presentation on initial analysis on land use. The analysis shows that 10 acres of developed land was gained per day. This group intends to submit a poster for the science conference.

Water Quantity and Hydrology

This group has updated water use data for PA and NJ through 2008, but they've made no advance on Delaware's data, but UDel can get it. They don't have updated data for New York yet. For ground water, the PA protected area water use is completed for 2008, and they got more data from Corps. For water demand, the group can get data for electricity generation. Salt line location will be similar to the last report. Surface water withdrawals need to be looked into. **Desmond Kahn had agreed to give information on industrial withdrawals.** Withdrawals could be a feature box story about fish kills based on limited data at certain sites. The TREB could also report on how trend is going down for water withdrawals because of closures. DRBC has data for all gauging stations in the basin for some period of time? DRBC has a list of cities with MS4s. CSO mitigation could make a good feature box.

Water Quality

Passed out progress report to the STAC on refinements to the Primary Indicators list. A map was included on the progress report from data obtained from NWIS and STORET. The question was asked if DO should be reported in a larger window than 10 years?

What does “trends” mean? For some indicators, we have short term and long term data to tell trends. Longest term and short term stories should be told were available and appropriate.

Sediment

Giving a poster at the science conference.

Aquatic Habitats

Intertidal – can do status, but tidal trends is more difficult. The status of current data is all over the board, some are as old as 1972. So, they decided to report with the data available. New Jersey and Delaware is much more up to date than PA.

Subtidal – Andrew showed preliminary analysis of the DEBI data and some maps of the metals data. DEBI data is being prepped, and they’re working on a poster.

Nontidal – nothing to report. They should be able to tell a story on dams removed. The buffer integrity indicator didn’t work last time and it might be removed.

Living Resources

Tidal - Shore birds and fish passage **recommend for a feature box**. Bald eagles could be a good feature box, but probably not a great indicator for the estuary because their ranges are too big. SAV could be another feature box. No poster planned at this time.

Non-tidal – macro is coming along using the 303d listings. They have fish passage data. Eel data can come from PWD, and they’re looking into eel-weir data. **Action item:** tidal and non-tidal groups should talk offline about how to deal with redundant metrics. They decided to drop amphibians. Bald eagles in Philadelphia might make good feature box. Might be able to get mussel data in time for the SOE.

Climate Change

Ray Najjar is giving a talk at the conference on his work. Contract issues with Penn State has held up their work. Danielle wants to use barometric pressure data back to 1800s to tell a story about storms. PWD has looked at intensity of rainfall for the area back to 1900s. The idea was proposed to compare these two data sets. Dale Haidvogel is running hydrodynamic patters for future shorelines, and should be ready in January.

System functions

This section is following the work of the other sections, looking for data and stories to tell. Carbon sequestration is a wish list.

Restoration

NEPA – EPA requires PDE to submit a list of projects completed in the estuary by PDE, states, and other partners. The group is using NEPA data to for money invested per watershed, and NOAA restoration center’s data. The Project Registry will be used to determine restoration needs in a feature box.

Standardization for the Report

Sections should include:

Description of the indicator

Map

Present Status

Past Trends – Short term and long term (where applicable)

Future Projections (where appropriate)

Discussion on the value of the metric as an indicator

Actions and Needs

What is this indicating? - This is a summary of what the indicator information means, and will replace the thermometer graphic

Discussion

Should individual metrics be tied into an index of any kind? For example, water quality has so many metrics, and these could be grouped to give an overall picture of water quality.

There was some discussion about if the thermometer graphic should be included in the technical report. Thermometer arrows in the 2008 report represented trends in over the last 5 or 10 years, but some STAC members viewed this as a tool for the public report, and not appropriate for a technical report. If you remove the thermometer, a summary section should be added in addition to a discussion about the value of that metric as an indicator.

What should this report be named?

2011 TREB

2011 Technical Report for the Estuary and Basin

Action Item: A tag line needs to be created.

Next Meeting February 22nd to be confirmed

Meeting Adjourned 3:00 p.m.