



**Science and Technical Advisory Committee Meeting
Ocean County College, Technology Building
December 21, 2016, 9:00-12:00 pm**

Attending STAC Members: Dr. Matt Poach (Chair - NOAA), Rob Karl (Vice-Chair, Brick MUA), Dr. Elizabeth Lacey (Stockton Univ.), Britta Wenzel (SBB), Patrick Burritt (Pinelands Commission), Charles Caruso (PPA), Gregg P. Sakowicz (Rutgers/JCNERR), Dr. Ron Baker (USGS), Vicki Pecchioli (OC Dept. of Planning), Nelson Santiago (OCHD), Dr. Louise Wootton (GCU), Dr. Pete Rowe (NJ Sea Grant), Dr. Jim Vasslides (BBP).

On the Phone: Alena Baldwin Brown (NJDEP DWM&S), Barbara Spinweber (US EPA).

Guests: Swarna Muthukrishnan (COA), Steve Evert (Stockton Univ.), Christine Wieben (USGS), Zach Lees (COA), George Murnyak (Policy Committee).

Barnegat Bay Partnership Staff: Martha Maxwell-Doyle, Dr. Stan Hales, Mary Judge.

Welcome and introductions – M. Poach

The meeting was called to order at 9:05 am and introductions were made.

Review of draft agenda and minutes of October 19th STAC Meeting – M. Poach

The minutes and agenda were reviewed. Dr. Hales added an agenda item to review the latest RAE meeting in New Orleans. Mr. Caruso repeated a previous request for an NJDEP update on the Barnegat Bay projects, but this was not available – perhaps it will be in early spring. Mr. Karl requested a correction to the October 19th minutes about the drought watch, to read that it was Mr. Karl and not the NJDEP who gave that report. The minutes were accepted, as amended, without motion.

STAC funded Oyster Reef Restoration Project – Mr. Steve Evert, Stockton Univ.

Objective: Preview results of work thus far and anticipated project schedule.

Mr. Evert provided a mid-project report. The different approaches to oyster restoration were reviewed – both remote set (growing larvae in a tank and moving them) and Mullica River transplant. There have been no restoration efforts in the Little Egg Harbor Bay to date. A site was selected at the two-acre Tuckerton Reef (“the Middlegrounds”). The Good Luck Point site was already in existence.

Oysters for the Tuckerton site were remote set in Tuckerton, and transported to the reef by Stockton. Planting survival percentages were good. Predation and competition (over-crowding on the whelk) were responsible for non-survival.

The Good Luck Point remote set was on a smaller scale and located at the end of the Ocean Gate Pier. From that remote set 75 bushels of whelk shell were distributed at GLP in three separate events. Survivorship at GLP wasn't as high as Tuckerton, but still good at 68%. Post-planting growth was excellent.

The Mullica River transplants were made in November 2016 -- 150 bushels were moved to LEH Bay and 75 bushels to Toms River with an average of 1,495 live oysters per bushel. A bed health assessment will be taken next year. The outreach component of the project was discussed – the Ocean Gate public event; shell recycling program; outreach materials printed and distributed; media outlets reached.

The project timeline and remaining tasks (assess survivorship; monitor growth; assess hard clam recruitment; disease testing; final reporting) were discussed. His hope is that this project will provide enough data to approach an agency for more significant funding.

Q: Are there enough other sites to increase the project size?

A: Yes, there's plenty of area to grow where they are (they've only set whelk in one-half of a full acre, and there is more surrounding acreage). Other areas in the bay reviewed to date were not conducive, but he'd like to look at areas further up the bay towards the bridge. He's confident other areas are available and bathymetry would identify them. He'd look for lower salinity level areas, as spat are more susceptible to disease in higher salinity areas.

Q: Why was whelk shell used rather than clam shells?

A: You can use any shell medium. A commercial fisherman uses crushed clam shells for oyster beds because he doesn't want them clumped together. Whelk was available, usually free, and provide vertical relief, as well as providing ecological services (toad fish). Predation by Cownose rays have become a serious issue for the bays. The range of the species is temperature dependent – as water warms, they proliferate (see Joe Smith report).

2016 Prospectus – Matt Poach

Objective: Discuss final draft of BBP STAC Prospectus

The USGS gave Dr. Vassslides information about direct groundwater-to-bay discharge and this will be added. Strategic Plan Action numbers and amounts need to be added to the prospectus. A Wetlands and Living Shorelines section is being added to by Ms. Maxwell-Doyle. Ms. Baldwin Brown will also be adding a number, but is still working on the final figure. The STAC will vote on its approval via email after these noted changes/additions.

One of the actions from the Mid-Atlantic Ocean Plan is to start an ocean acidification work program, so Mr. Caruso suggested that adding monitoring of this ocean acidification to the Water Quality action might be useful, as well as a separate item on ocean acidification and its impact on

the bay. A further discussion was held on this topic. Dr. Hales wants this added as a separate item. Dr. Poach will add a paragraph on the coastal acidification section, and Ms. Baldwin Brown will add dollar amounts to the continuous monitoring. Partners were asked to review the Prospectus again and specifically address requests for estimated costs for projects in case funding becomes available at a later date from a variety of agencies.

Blue Carbon will be incorporated into the wetlands piece. Sea Grant funded a Barrier Islands and Blue Carbon project (another year remains on the project) and Dr. Rowe will speak with them about their progress.

Dr. Poach set a deadline for January 20 to get the changes in and to finalize the document.

CCMP Update – S. Hales

Objective: Update STAC on CCMP progress and next steps

The BBP distributed the actions from the 2012-2016 Strategic Plan and the original CCMP to the STAC, Advisory, CEC, and others to review and provide their assessment of the relevance of that work. The Steering Committee has been meeting and reviewing the Laura Bishop Communications' Survey. The only remaining Strategic Plan priority is water quality. The Water Quality review will be completed at the January 9th meeting. Ms. Walzer will then compile the results of the steering committee for distribution to other BBP committees for their review. We need to consider the climate change vulnerability of the final actions.

Dr. Vasslides discussed the vulnerability assessment update.

The BBP will also put in requests for additional funds to support CCMP revision. Dr. Hales is looking for NJDEP representation on this project.

STAC 2017 Meeting Calendar

Objective: Set meeting calendar for 2017

The STAC meetings and CEC meetings are overlapping and Dr. Vasslides has been asked to try to reschedule the STAC meetings. A quick poll was taken regarding moving the meetings to the second Wednesday of the month. For 2017, the meetings will be moved to the second Wednesday and he will distribute the meeting dates via email.

Dr. Hales report on RAE Meeting and visit to Barrataria-Terrebone NEP.

That wetlands system is losing a football field of wetlands per hour, which is a staggering loss to the system. It has the second highest rate of sea-level rise in the world. One reason for the subsidence of the ground is due to oil and gas activities. The sediment supply from the Mississippi River is not being delivered. Green infrastructure projects are being pursued. It's important to look at what natural processes are going on before undertaking restoration projects.

The BBP wetland assessment projects were discussed, as well as the Paddle for the Edge citizen science project.

The BBP/STAC needs to play a bigger role in working with the Municipalities and the projects they're working on post-Sandy without professional help. SBB asked if the BBP would participate in a public meeting (Mancini Hall) about this subject. The need for Environmental Impact Statements was discussed for these types of projects.

BBP Office Relocation

Objective: Update STAC on new BBP Office location

The BBP is back on campus and partners were invited to stop by its offices. There was a Policy Committee conference call the week after Thanksgiving where OCC confirmed their support of the program. Save Barnegat Bay was given the Brown's Woods site.

Partner Updates

Dr. Poach will be submitting a proposal with Dr. Daphne Munroe on effects of ocean acidification. They will collect and analyze the existing data, look at trends, and then model future effects, due to either rising temperatures or increased atmospheric CO₂. That data will be used for a full vulnerability assessment. Dr. Poach is also on a LOI from another group to perform a full social/economic impact on the aquaculture industry with the NE Coastal Shelf system.

Ms. Wenzel announced the Senate passage of the SBB legislation to require the DOT to use only native plants in revegetation projects. Now it goes to a full-floor vote at the Assembly and then to the Governor's desk. The student grant program (\$10,000 for 2017) is ongoing and has a website. Partners were invited to sponsor a student for a project. An additional "team project" will be instituted to continue Paul Jivoff's work at the Sedge Island Marine Conservation Zone. The deadline to apply is March 31st; please see the website for more details.

Clean Ocean Action reported on the Restoration at two Dredge Holes; their comments were submitted to the NJDEP and they would like the public more involved in these projects. He will forward the information he has but so much is left out that it's impossible to review the projects.

Sea Grant's RFP is on their website and deadline for pre-proposal is January 30th. One priority talks about the watershed; also wetlands and restoration techniques.

Dr. Hales reported that the BBP held a meeting for the redesign of our website, which will be a six month process, working with Fusion Spark Media. Applications for the Field and Lab Coordinator position closes December 30th and the announcement can be found on the college's website.

Dr. Baker announced that USGS personnel have completed a model that covers Ocean County and this can be found on their website. This paves the way to release a report on a particle tracking model for the watershed. The report itself is completed, they're just waiting for the model to be completed.

Adjournment

The meeting was adjourned at 11:00 am.