South Shore Estuary Reserve Technical Advisory Committee Meeting

April 5th, 2022 10:00am – 11:30am
Zoom Meeting

In attendance:

South Shore Estuary Reserve (SSER) Office:
Jeremy Campbell
Sally Kellogg

Technical Advisory Committee (TAC) Members:
Tara Schneider-Moran, TAC Chair, Town of Hempstead
Kathleen Fallon, TAC Vice Chair, New York Sea Grant
Michael Bilecki, National Parks Service (NPS)
Jim Browne, Town of Hempstead
Maureen Dunn, Seatuck Environmental Association
Rich Groh, Town of Babylon
Emily Hall, Seatuck Environmental Association
Mike Jenson, Suffolk County Department of Health Services
Artie Kopelman, Coastal Research and Education Society of Long Island (CRESLI)
Brad Peterson, Stony Brook University SOMAS
Eric Phelan, Town of Babylon
Steve Raciti, Hofstra University
Corey Humphrey, Suffolk County Soil and Water Conservation District
Steve Schott, Cornell Cooperate Extension of Suffolk County
Chris Shubert, USGS
Lane Smith, New York Sea Grant
Julia Socrates, New York State Department of Environmental Conservation (NYSDEC)
Adam Starke, The Nature Conservancy (TNC)
Anthony Valentino, Town of Babylon
Tom Wilson, Stony Brook University SOMAS
Guests
Josh Halsey, Peconic Land Trust (PLT)
Jessica MacGregor, Stony Brook University
Kim Manzo, Cornell Cooperative Extension of Suffolk County
Carlie Schecht, Town of Islip

Meeting called to order at 10:03am.

Approval of February 1st, 2022 Meeting Minutes
MOTION (M. Dunn): pass February meeting minutes. Seconded (C. Humphrey). Approved.

Review and vote in edited bylaws, review survey results
MOTION (M. Bilecki): pass updates to TAC Bylaws. Seconded (J. Browne). Approved.

PLT requested to become a member of the SSER TAC. TAC chair and SSER office will follow up with PLT.

Survey questions and results described.

1. The TAC has met the first Tuesday of every other month at 10am. Pick which statement best represents your view
2. The TAC has met at 10am. Pick which statement best represents your view
3. Currently the TAC meets every other month. How do you feel about the meeting frequency?
4. How would you prefer to communicate between TAC meetings?
5. Please list any future agenda items

Most members wanted to keep the same day, time, and frequency. Email was the preferred communication method between meetings. Potential agenda items were discussed. See slides for additional details.

Presentation: SSER LAG Project: Shellfish Hatchery Algae Bio-Reactor Installation

C. Schecht introduced herself noted that two algae bio-reactors were purchased through the SSER grant. An overview of the hatchery was also provided.

Presentation: General impacts of herbicides on seagrass and their prevalence in LI groundwater

J. MacGregor noted the work was built off what previous graduate B. Rodgers had done. Reviewed eelgrass changes from 2002 to 2018. The focus of the research was on photo-inhibiting herbicides (diuron and atrazine) and eelgrass. In the short-term, photosynthetic efficacy and leaf growth was inhibited however, when combined with other stressors like increasing water temperatures and rising nitrogen loads, the impacts were increased. Long term effects of herbicides to eelgrass include increased susceptibility to wasting disease. Nitrogen loading resulted in no significant difference in productivity/growth, but higher Chlorophyl A and lower photosynthetic efficiency. Diuron significantly reduced mass, standing crop, productivity, leaf area and reduced phytoplankton. Temperature is the overwhelming factor which may have had a bigger impact on growth than the herbicide. There was a drop off in use of Diuron in Nassau and Suffolk Counties in 2012 as per NYS DEC and CCE Pesticide sales and use reporting program. Atrazine was barely used according to the source. Atrazine only exceeded the Suffolk standard for drinking water in one drinking well. Herbicides found would be from legacy sources and not from new inputs. Future work could identify current concentrations in the bay, water sampling near known groundwater discharge areas, and testing more realistic herbicide cocktails on eelgrass meadows.

Question: Have you tried sediment sampling to test for concentrations of herbicides?
Answer: It is not currently happening but that is a good suggestion.

Question: Have samples been taken to identify current concentrations?
Answer: Concentrations measured have only been in the Peconics.

Question: Have the breakdown chemicals and their effects been investigated?
Answer: Breakdown products are complicated, and the resulting end chemicals found in a sample could be from a suite of different products. This needs further analysis.

Comment: Surface water runoff should be looked at with groundwater.

Comment: For the SSER, the majority of water entering the bays is from streams with groundwater inputs. Areas that are mostly contributing to contamination are from developed areas near the streams and shoreline.

Question: Is this a topic that the SAV subcommittee is interested in?
Answer: It is mentioned in the document but only briefly. There is not a lot of research on this topic and it is difficult to track.

Marine Meadows Program
The parameters for success were identified: site selection (including water quality, water clarity, sediment time, light availability, temperature, etc.), transplant stock, time of year (based on water temp which usually occurs in the fall), and plantings must be anchored on bottom until they become established. The eelgrass planting methods were described including broadcasting seed, planting shoots, and the tortilla/biodegradable disc method. The tortilla method uses 10 eelgrass shoots woven through burlap discs; the burlap will anchor the freshly planted shoots while they root to the bay bottom, but the disc will degrade overtime. This method has increased the number and scale of plantings and allows for outreach opportunities since the "tortillas" can be made with volunteers on land. Groups that have partnered with the Marine Meadows program include Friends of Bellport Bay. Current and recent eelgrass restoration and monitoring sites were shown. Cornell Cooperative Extension's habitat programs were described.

Update on Draft Seagrass Action Plan document
J. Campbell described the minor edits made to the draft seagrass action plan document. DOS met with DEC to review the document and the next meeting is scheduled for the week of April 11th. This document is still slated to be presented at the next Council meeting.

Question: Is the SAV poster ready for release?
Answer: Not yet.

Other Business: Partner Updates
M. Bilecki: The FINS science conference for 2022 has been canceled due to capacity issues.

C. Schubert: Supplemental funding was awarded to expand a study looking at the effects of flood and sea level rise and stormwater to expand and include the SSER and east end.

L. Smith: Long Island Sound research conference will be held on May 18 in Connecticut. Abstracts can still be submitted, and registration is open. Long Island Sound Study: Preliminary Proposals - 2023-2025 Long Island Sound Study Research pre-proposals are due June 6.

B. Peterson: New York Sea Grant funded a blue carbon project to look at carbon reserves and accumulation rates this year.

Motion to adjourn meeting. Seconded.
Meeting adjourned at 11:54.