

South Shore Estuary Reserve (Reserve) Council Meeting
May 3, 2017, 10:00 a.m. – 1:00 p.m.
Islip Town Hall, 655 Main St., Islip, NY 11751
Final Minutes

Attending:

**NYS Department of State, Office of Planning and Development,
South Shore Estuary Reserve Office**

Jeremy Campbell
Lou Siegel
Sherry Forgash

Council Members:

Angie Carpenter (Town of Islip Supervisor)
Charles DeQuillfeldt (NYS Department of Environmental Conservation, Division of Marine Resources)
Joseph Febrizio (City of Long Beach DPW)
Lauretta Fischer (Suffolk County Division of Planning and Environment)
Brian X. Foley (NYS Office of Parks, Recreation and Historic Preservation)
Peter Fontaine (Town of Brookhaven)
Dan Fucci (Nassau County DPW)
Rich Groh (Town of Babylon, Department of Coastal and Environmental Management)
Robert Grover (Great South Bay Audubon)
Carl LoBue (The Nature Conservancy)
Tom Marquardt (Town of Islip)
Kevin Moran (L.I. Builders Institute), for Mitch Pally
Maureen Dolan Murphy (Citizens Advisory Committee Chair/Citizens Campaign for the Environment)
Marty Shea (Town of Southampton)
Lane Smith (NY Sea Grant) for William Wise
Maryann Webb (Town of Oyster Bay)

Other:

David Berg (L.I. Regional Planning Council)
Katherine Bunting-Howarth (NY Sea Grant)
Elizabeth Cole (L.I. Regional Planning Council)
Soren Dahl (NYS Department of Environmental Conservation, Division of Marine Resources)
Maureen Dunn (Seatuck Environmental Association), for Enrico Nardone
Adrienne Esposito (Citizens Campaign for the Environment)
Dr. Chris Gobler (SUNY School of Marine and Atmospheric Sciences, Presenter)
Jim Heil (Commissioner, Town of Islip Department of Environmental Control)
Kristin Kraseski (NYS Department of Environmental Conservation, New England Interstate Water Pollution Control Commission)
Nancy Solomon (L.I. Traditions)

Welcome and Introductions

J. Campbell called the Council meeting to order at 10:10 a.m. Introductions were made all around. He thanked Islip Town Supervisor, Angie Carpenter, and Commissioner of the Islip Department of Environmental Control, Jim Heil, for attending today's meeting and making opening remarks.

Reserve Council Meeting Draft Minutes, October 20, 2016

C. LoBue had edits to the first paragraph on page six of these draft minutes and the edits have been incorporated into the October 20, 2016 Council minutes.

MOTION by Marty Shea to approve the October 20, 2016 minutes, with the noted edits; seconded by Carl LoBue; carried.

J. Campbell announced to the Council, that DOS Office of Planning and Development (OPD) has undergone some changes recently, one being, that its Deputy Secretary of State (SOS), Sandra Allen, is no longer with the Department. He had no further information on a possible replacement Deputy SOS.

Reserve Projects and Status

- J. Campbell announced that that State budget had passed and that the Reserve has received another \$900,000 appropriation.
- J. Campbell announced that the Reserve has approximately \$4.5 million available through the EPF appropriations.
- The DOS funded project with USGS, *Update of the Coordinated Water Resources Monitoring Strategy*, is in its final stages and will be completed by the end of June.
- The DOS funded project with Suffolk County Department of Health Services, *South Shore Estuary Reserve Subwatershed Wastewater Plan for Innovative/Alternative On-site Wastewater Treatment Systems*, is ongoing.
- DOS has an MOU with the Governor's Office of Storm Recovery (GOSR), for GOSR, together with NOAA Coastal Management, to perform Submerged Aquatic Vegetation (SAV) mapping starting this spring and to be repeated in 2022 and 2027; when complete, DOS will follow-up in 5-year increments. At this point, Soren Dahl, DEC, gave an overview of the mapping project. He is in contact with GOSR and NOAA Office of Coastal Management is administering the project. NOAA is aiming for late May and June flights; then interpretation for orientation and point validations. The last time SAV mapping was done in the Reserve was 2002. Partners are needed to be out on the water during the flights (flyovers); Islip, Babylon, and Southampton volunteered their boats, staff and time. SAV mapping yields valuable biological and ecological indicators, contributes to the health of the Estuary, and is important to project planning and water quality management. There have been problems with SAV growth and water clarity. NOAA will do a QA for the final product. Clarity and aerial image quality will be checked as this can make a difference in interpretation. Guidance documents are available for the survey, which will only be done in the Reserve.

- J. Campbell met with USGS at the LINAP meeting regarding solute transport model which is a quality analysis of nitrogen loading inputs to groundwater; only the Peconic Estuary Program uses this model presently. This model is needed on the south shore; J. Campbell is looking for funding to implement this model in the Reserve and Long Island Sound. C. LoBue mentioned that LINAP is looking at the role of land cover/land use and lag in groundwater travel time regarding this solute transport model. This model allows for the use of groundwater travel time, and gives the information needed to understand the time until the effects of nitrogen loading are seen. This model is not duplicative of, but adds to, the work that CDM Smith is doing for Suffolk County. The goal is for all the estuary programs to use this model; this is not currently done. The model will also include legacy inputs, such as, old ducks farms. L. Smith mentioned that SoMAS has done some work with Long Island Sound that might be of use. C. LoBue noted that there should be communication as everyone has come together for LINAP.

It was noted that this would be a good time to discuss collaboration with Long Island Sound to complete the Solute Transport Model on the rest of Long Island. C. DeQuillfeldt noted that LIS has increased funding this year; Adrienne Esposito said the increased funding was from \$3.9M to \$8M; the Peconic Estuary has a \$700,000 budget. There is an extra \$4M in funding for Long Island Sound in 2017.

David Berg, L.I. Regional Planning Council, noted that the solute transport model uses 50-60 year old land use records, and this would only provide an estimate from that time period (of nitrogen inputs). To estimate old N-loads, levels would be calibrated with current levels.

- LINAP is at the end of modeling for Suffolk County. Maximum loads will be determined for 189 subwatersheds by spring/summer.
- Articles 5 and 6 of the NYS Health Department, address onsite wastewater treatment systems; changes in the draft regulations will require alternative onsite wastewater treatment systems for new construction. Article 19 deals with the use of these systems. Suffolk County may opt for a county wastewater district to manage onsite wastewater treatment systems; \$10,000 grants and low interest loans (15 years at 3%) are available for installing newer systems. Suffolk County has funding available to upgrade to the newer systems. Approximate cost of the newer, alternative systems is \$17,000. D. Berg mentioned that Nassau County had its first meeting on subwatersheds and they are also doing a model; Drs. Flagg and Wilson of SoMAS will be using a hydrodynamic model for the north shore. Fertilizer management questionnaires were completed by members of various fertilizer related industries including golf courses, landscaping companies, fertilizer manufacturers and agricultural operations. Brief mention of Bioextraction, a new industry through growing seaweed and bivalve aquaculture for nitrogen removal. LINAP will be issuing a Request for Proposals soon. The LINAP website is being updated and can be accessed at: <http://www.dec.ny.gov/lands/103654.html>; The LINAP newsletter, written by Elizabeth Cole, can be accessed at this site.
- M. Shea, Town of Southampton, reported the Town has a local law requiring innovative onsite wastewater treatment systems to be installed in new dwellings and additions. There has been a lot of interest in this program, with some systems ready to install. The

Town can provide financial assistance using its Community Preservation Fund (CPF) which is derived from their land transfer tax. Southampton is working closely with the County on this initiative. Twenty percent (20%) of Southampton's CPF is for water quality improvements. The Town has between \$60M - \$70M in the bank for this purpose. Adding to this amount at the rate of \$3M - \$5M a month will be in place by the end of the year. Southampton's CPF legislation passed by 80%.

- R. Groh, Town of Babylon, reported that 3 projects are ready to sewer in the area of the Carlls River in North Babylon.
- J. Campbell explained the Consolidated Funding Applications (CFA) through the Governor's Regional Economic Development Council. There is \$800 M available. *(The Governor has directed over \$800 million in State resources to be made available in 2017 to support the economic development priorities of the regions and spur job creation across the state, including \$225 million in competitive funds from Empire State Development.)*
A large amount is available to advance projects in the SSER. Match amount differs with grant.
 - DEC has \$87M available for its Water Quality Improvement Program (WQIP) funding.
 - DOS has \$15.2M available for Local Waterfront Revitalization Program (LWRP).
 - Environmental Facilities Corporation (EFC) has \$15M available for green infrastructure projects.
 - DEC/EFC has \$3M available for wastewater infrastructure engineering planning grant. (Medium Household income for Long Island must be equal to or less than \$85,000)
 - DEC has \$9.5M available for Climate Smart Communities.

The CFA closes July 28, 2017 at 4:00 PM. J. Campbell instructs all to visit the REDC website at: <https://regionalcouncils.ny.gov/> He will send the workshop dates to the Council.

Two workshops will be held: 5/16/17, 1:00 pm – 3:30 pm at Hofstra University
6/9/17, 10:00 am – 12:30 pm at Stony Brook University

There will be breakout sessions at the workshops, and attendants are not limited as to which sessions they attend.

B. Foley, NYS OPRHP, noted that State Parks has up to \$20M in funding available for acquisition, planning, development and improvement of parks, historic properties, and heritage areas. A state parks representative would be present at the CFA workshops. Contact Traci Christian at Belmont Lake State Park, (631) 321-3543 for more information.

- J. Campbell reminded all that today (May 3, 2017) is the due date for Request for Applications from partners for \$800,000 through the South Shore Estuary Reserve Local Assistance Grant Program. DOS will make its decision on which proposals to fund sometime over the summer.

- Governor Cuomo signed the “Clean Water Infrastructure Act” investing \$2.5B in clean water infrastructure and water quality protection.

A. Esposito asked for a listing of projects received in response to the Reserve Local Assistance Grant Program; if we can show we are spending a lot on projects, the Reserve may be able to justify asking for more funding in the State budget.

There will be a DEC WAVE training that helps support the DEC RIBS program (Rotating Intensive Basin Study) on May 17th at Connetquot State Park and May 18th at Wertheim National Wildlife Refuge for citizen science monitoring of macroinvertebrates. Long Island is scheduled for the RIBS program this year.

J. Campbell stated that there would be another Nassau County Back Bays meeting in Freeport, tonight. This scoping meeting is being hosted by the USACE for its NY Coastal Storm Risk Management Feasibility Study. The purpose of the Nassau County Back Bays feasibility study is to investigate potential solutions to coastal storm flood damage along the back bays of Nassau County, NY.

M. Dolan Murphy would like to invite the USACE to a CAC meeting; she needs a contact person.

L. Siegel volunteered on behalf of DOS/Reserve Office to assist Seatuck with netting and moving alewives over Massapequa Lake dam as part of their alewife survey, April 26, 2017.

Video

(https://youtu.be/gOosL_fhiWg)

S. Forcash volunteered at the L.I. Regional Envirothon on behalf of DOS/Reserve Office; held at Old Bethpage Village Restoration, April 25, 2017.

SSER Comprehensive Management Plan (CMP) Update

J. Campbell reported that the CMP chapters have been updated and each sent to Council members for their review. He will resend to all members, this time as one complete document in one email, not in separate chapters as originally sent. He wants this to be a document where the Council has had significant input. N. Solomon also submitted comments and would like to see draft sent to other partners for comment, not just Council members. The new CMP will be more concise with a simpler layout. M. Dolan Murphy asked if DOS could provide the CAC with an overview of the new CMP. She suggested that this should be more of a 5-10 year action plan.

Discussion on CMP Chapter 6

L. Siegel gave an update on Chapter 6, Outreach and Education. There are four main areas to be addressed: 1) Convene an education group that can meet with the Council and CAC; 2) Develop an integrated interpretive system for the entire Reserve, and have a QR code that can be scanned with a cell phone to display maps, trails, South Shore Bayway information, and natural resource and recreational information about the Reserve; and same information accessed from a computer; 3) Increase the visibility of the Reserve by participating in more meetings and functions; 4) Increase citizen science (biological-chemical-physical). Many groups are doing research, and this all needs to be coordinated so there is no duplication of efforts.

C. DeQuillfeldt suggested that the Reserve Council Technical Advisory Committee be re-established.

M. Shea asked if the Long Island tourism industry was promoting the Reserve. L. Siegel commented there has been no mention of the Reserve and that we need to 'team up' with the tourism industry.

A. Esposito noted that the last time there had been work done on the Bayway program, it took too long to gain approval from DOS on each part of the project.

D. Berg suggested including a surface water sampling program.

J. Campbell gave a brief review of the CMP meeting held at the Operation S.P.L.A.S.H. building in Freeport on February 23, 2017, to gain input from Council members on draft chapters 4 (Public Use and Enjoyment) and 5 (Estuary-related Economy).

N. Solomon suggested it might be better to have a non-profit group work on the Bayway program so there would not be any delays through DOS.

South Shore Estuary Reserve, Citizens Advisory Committee (CAC) Report

M. Dolan Murphy gave the report; reviewed the January 2017 meeting; the March meeting was cancelled due to inclement weather. Tom Marquardt gave a presentation on the Islip Town aquaculture program at the January meeting.

The CAC will review the CMP draft updates at the May 9 CAC meeting.

Some comments and suggestions made for the CMP update include:

- Chapter 5 (Economy) – include mobile pumpouts.
- Chapter 3 (Living Resources) – management of upland ponds; migratory fish; dam removal; communities should be included as some waterbodies are now large lakes due to dams. Identify more issues regarding VOCs and pharmaceuticals; drug 'take-back' programs.
- Chapter 5 (Economy) - Support of Regional Economic Development Council (REDC), needs more clarity.
- Chapter 2 (Water Quality) – nitrogen.
- Chris Clapp was to attend the March CAC meeting and speak about innovative/alternative onsite wastewater treatment systems. She invited Laoretta Fischer to attend also.
- D. Fucci said the Bay Park sewage treatment plant project of inspecting the aqueduct pipe for use to transport treated sewage to Cedar Creek STP is now being visually inspected; 9.5 miles of conduit; results look promising; report should be out by summer.
- J. Febrizio said there has been discussion on the possible Long Beach sewage treatment plant conversion to a pump station; \$30M for this project. Sewage would be pumped to Bay Park for treatment, then transported to Cedar Creek STP ocean outfall via the 9+ mile aqueduct running beneath Sunrise Highway, which is now being inspected to determine its condition. The City of Long Beach has been out of compliance at several times in the past. The removal of the Bay Park and City of Long Beach discharges will result in an 85% reduction in nitrogen discharged into the bays. J. Febrizio mentioned that a letter of support from the CAC would be helpful. CCE was complemented on their continued efforts to clean-up the western bays.

Long Island South Shore Estuary Reserve Eastern Bays Project: Nitrogen Loading, Sources and Management Options, Dr. Chris Gobler, SUNY SoMAS (see PowerPoint presentation)

This was a Reserve funded project and is an N-loading report for the Eastern Bays. C. Gobler acknowledged the work of Carl LoBue which helped to make this project happen. His graduate student, Isabelle Stinnitte, assisted with this project, for her work toward her Ph.D.

C. Gobler began his PowerPoint presentation with background information about Suffolk County:

- Population of Suffolk County continues to increase.
- Nitrogen in groundwater continues to increase.
- Have several types of harmful algal blooms; one being Alexandrium species, which causes paralytic shellfish poisoning (PSP). Others, red tide, brown tide.
- 100s of Diamondback Terrapins die-offs have been linked to land-derived nitrogen.
- Brown tide repeatedly occurs in the Reserve and have been more intense; they have increased 99% and have negatively affected the shellfish harvest.
- Dissolved oxygen (DO) has been poor at about 3mg/L. Many waterbodies are found to be hypoxic at night. DEC wants 4.8mg/L of DO for all waterbodies.

The objectives of this study are to: 1) Quantify the nitrogen load to the bays; 2) Determine the sources of nitrogen; 3) Quantify delivery rates of nitrogen; 4) Assess water quality of the bays and its co-variance with nitrogen loads and flushing rates; 5) Determine nitrogen mitigation scenarios.

C. Gobler referenced Ivan Valiela's nitrogen-loading model, which included land use; considered impervious surfaces; evapotranspiration; atmospheric deposition (wet, dry, organic; atmospheric N is great dry than when wet); wastewater (STPs, cesspools, septic); fertilizer. Most nitrogen is derived from wastewater. Each person can produce 10 lbs N/year.

B. Foley asked if the nitrogen from legacy duck farms is figured into C. Gobler's model. Soren Dahl commented that further research is needed on this problem.
R. Groh asked L. Fischer if a sediment evaluation will be done for Suffolk County's Mud Creek project.

Household wastewater is the priority source of nitrogen with 75% of nitrogen derived from liquid waste. Groundwater flow is the largest delivery method of nitrogen. There is a correlation between flushing time and N-loading (salt balance).

Two problem waterbodies exists: 1) Western Moriches, the Forge River, and 2) Quantuck Bay has the longest residence time.

Some nitrogen mitigation scenarios are: 1) connecting homes to a sewer system; 2) upgrading to an innovative/alternative onsite wastewater treatment system; 3) decrease fertilizer use; 4) build-out scenarios and lot size.

A conclusion can be made that wastewater is the largest nitrogen source with groundwater flow being the most important transport mechanism.

A sub-watershed evaluation is in progress with DEC, Suffolk County, USGS, CDM Smith, and SUNY SoMAS.

C. Gobler noted that this project/study, has helped him to develop other studies such as creating a hydrodynamic model to look at flushing rates; the spread of clam larvae; and, biological effects of N-loading.

Questions for C. Gobler:

M. Shea said the Town is exploring the idea of using its Community Preservation Funds for a tidal gate; asked if he thought it was worthwhile to flush out western Shinnecock Bay. C. Gobler said this question is difficult to answer, as the new inlet keeps shifting. The improvements due to the new inlet (Sandy breach) were largely to the east. Flushing time is an issue. When comparing the effect of N-loads on water quality in the different estuaries the shallow depth of the Reserve has a significant influence.

B. Foley asked how far from the coast do the effects of nitrogen from wastewater begin to appear regarding water quality. If sewer system were expanded, would this alleviate N-loads to the bays? C. Gobler notes, yes, but that the cost of connecting homes to public sewer system is prohibitive.

L. Smith noted that most dry atmospheric deposition is derived from power plants; he asked if there was a figure on atmospheric deposition derived from use of diesel fuel, as motor vehicles also contribute. C. LoBue suggested visiting the National Atmospheric Deposition Program (NADP) website at: <http://nadp.sws.uiuc.edu/>

N. Solomon commented that the baymen feel the Bergen Point STP killed off shellfishing in the area. C. Gobler added that seagrass has grown for only about 30 years around the area of the Southwest Sewer District, after the area was sewered, and that the area has a good population of scallops. Aquaculture is best for improving water quality.

Council Updates and Roundtable Discussion

- Bob Grover – no report.
- Marty Shea – Council meetings have been productive.
- Rich Groh – congratulations to Jeremy on his work; Babylon may ask for support of Council on its MS4 program.
- Dan Fucci – reported on Bay Park STP and feasibility study underway on the aqueduct.
- Tom Marquardt – Islip will go forward now, because Supervisor Carpenter attended and heard the issues.
- Joe Febrizio – congratulations to Chris Gobler on his report; it clarifies the role of nitrogen as a water quality issue. Joe mentioned the City's project of converting its STP into a pump station; wastewater would be transported to Bay Park STP for treatment, then transported via the aqueduct/conduit beneath Sunrise Highway to the Cedar Creek STP ocean outfall. They will be submitting a pre-application for this project by May 26 for the CFA grant program. He is hoping to gain letters of support for the project from the Council and Citizens Campaign.
- Peter Fontaine – appreciates the meetings.
- Carl LoBue – nice to see everyone together again.
- Maryann Webb – Supervisor Saladino is very active in Environmental issues.
- Lauretta Fischer – Thanks DOS for its support.
- Maureen Dolan Murphy – We did receive another \$900,000 in the SSER budget.

- Kathy Bunting-Howarth – Thanks the Council; happy to be included; announces an opening for LIS Outreach Coordinator.
- Lane Smith – happy to be part of the Council and represent Bill Wise, Sea Grant.
- Charlie DeQuillfeldt – good to be back together and more focused on an important resources (Reserve).
- Brian Foley – Happy to have Jeremy Campbell as new coordinator. Announces that May 6 is “I Love My Park” day in New York State.

Wrap Up

J. Campbell thanked all for attending today’s Council meeting. He will email the CMP updated chapters to all member, in one email. Comments will be due back in a few weeks. Follow-up items include: Send USACE contact information to M. Dolan Murphy; email Council the WAVE training dates; email Council the CFA workshop dates.

Adjourn

The SSER Council meeting adjourned at 1:03 p.m.