



Long Island Sound Study

A Partnership to Restore and Protect the Sound

Long Island Sound Study
Water Quality Monitoring Workgroup Conference Call
Meeting Summary

Wednesday, March 18, 2020, 1-2 PM

Jim Ammerman (Chair)—Long Island Sound Study (LISS)/New England Interstate Water Pollution Control Commission (NEIWPC)

Nelle D'Aversa-- New York State Dept of Environmental Conservation (NYSDEC)/NEIWPC
Carol DiPaolo—Coalition to Save Hempstead Harbor

Michele Golden--New York State Dept of Environmental Conservation (NYSDEC)

David Lipsky—New York City Department of Environmental Protection (NYCDEP)

Matt Lyman—Connecticut Department of Energy and Environmental Protection (CTDEEP)

Michelle Lapinel McAllister--Coalition to Save Hempstead Harbor

Peter Linderoth—Save the Sound

Jon Morrison—USGS

Katie O'Brien-Clayton—CTDEEP

Jim O'Donnell-- University of Connecticut

Leah O'Neill--EPA, R1

Evelyn Powers—Interstate Environmental Commission (IEC)

Beau Ranheim-- New York City Department of Environmental Protection (NYCDEP)

Paul Stacey—Footprints in the Water

Mark Tedesco—EPA, LIS Office

Phil Trowbridge—CTDEEP

Jamie Vaudrey—University of Connecticut

Agenda:

1. Monitoring updates (brief)
2. Tetra Tech Trend Analysis Work Plan major focus of meeting (advance distribution of Tetra Tech Work Plan for LIS Trends)
3. 2019 CT DEEP/IEC Joint Hypoxia Report (advance distribution of 2019 Combined Report March 2020 Draft)
4. Restore America's Estuaries 2020 Summit Session (advance distribution of 2020 Summit CFP Final).

1. Current Monitoring—Given that the current US epicenter of the Coronavirus pandemic is the New York City metropolitan area, and most of the participants are working from home, the first question raised was who is still monitoring? Beau said that NYCDEP was still monitoring and Evelyn noted that IEC had recently conducted its latest survey. Jon said USGS was still monitoring, but Matt and Katie noted that CT DEEP had been grounded. Peter said that the UWS was working on moving its in-person training to five online training modules to be held in April. Given all the current uncertainty, the overall prospects for 2020 monitoring season remain unclear, but personal safety remains paramount.

2. The main topic for discussion was the Tetra Tech data analysis work plan and many issues were raised. In addition to the discussion during the call, several comments were also sent in by email. Mark and Leah introduced the need for further analysis of the 30 years of LIS data and determining trends, with the goal of narrowing future research questions. There were two frequent comments and questions on the call and in the email comments: 1. The current work plan is vague and lacks detail, and 2. Does this plan focus on the open Sound, the embayments, or both? There was general agreement that significant additional details need to be provided before the project moves forward and that the focus would be on the open Sound where there is 30 years of data. Embayments could be included in the future especially when more data for them is available.

Carol asked about the time period for the data to be analyzed as well as adding data sources besides those listed and Mark noted that additions were possible. Jamie asked if the summary tabular data sets developed under Task 2 would be available to others and Leah said yes under a QAPP. Paul noted that the work plan was vague and he had particular concerns about just using total nitrogen, he suggested that the various components of total nitrogen should be analyzed. He also did not think that total nitrogen to chlorophyll relationships were particularly useful. Mark noted that this was useful input to the Tetra Tech team.

Jamie mentioned the table of predictor and response variables and the sources of data, noting that some data sets were better than others. Mark agreed and mentioned windspeed as a potential predictor variable that was studied by Jim O'Donnell at U. Conn. Jim noted that windspeed is not particularly dynamically important according to Bob Wilson's work, though the wind stress component in the along-Sound direction is important to ventilation. U Conn. currently has a project underway with CT DEEP to determine hypoxic volume. Jim said that there is not really a lot of information since sampling is coarse, with many unknown rates such as production and respiration. We need mechanistic models and to understand the mechanistic links, and this work plan is superficial and preliminary. Mark noted that while many of these concerns were valid, LIS was still relatively data rich. Jim agreed with Jamie's idea of Tetra Tech aggregating and distributing the data to others.

In separate comments Paul noted that stressor-response relationships were complex with many drivers, but thought that the continuous monitoring buoys might provide a more temporally robust relationship of a limited number of parameters. He also mentioned the potential relationship between WWTP trade equalized nitrogen load and hypoxic area in the 2019 Hypoxia Report.

Phil and Jamie both said that the focus of the work plan should be on the open Sound, and that currently there was not enough data to include the embayments. Mark mentioned the Suter et al. LIS data analysis paper (Suter, E.A., K.M.M. Lwiza, J.M. Rose, C. Gobler, and G.T. Taylor. 2014. Phytoplankton assemblage changes during decadal decreases in nitrogen loadings to the urbanized Long Island Sound estuary, USA. *Marine Ecology Progress Series* 497: 51-67), which analyzed LIS data from 1995 to 2009 as a potential model for the data analysis effort. Jim mentioned that his 2010 report with two colleagues entitled "A Synthesis of Water Quality and Planktonic Resource Monitoring Data for Long Island Sound" should also be looked at.

Mark asked for additional thoughts on the work plan for Tetra Tech data analysis be provided by March 24 (to Jim Ammerman) and mentioned that the current document was not a proposal and what Tetra Tech does is up to LISS, including its partners.

3. There was a brief discussion of the 2019 CT DEEP/IEC Joint Hypoxia Report for which Katie had just released a new draft the day before the meeting. It is still a draft so additional prompt comments may still be accepted. This report is shorter than some past reports, limited to the most important hypoxia and related parameters. However, there are detailed appendices with many links to additional information. Mark asked about the 2019 Water Clarity data and Katie said it was not yet available.
4. Finally, there was a short discussion of the upcoming Restore America's Estuaries Summit from October 4-8 and the development of one or more LIS sessions. The session and oral presentation deadlines were recently extended to April 17th. Please have all talk descriptions to Katie (also Phil and Jim A.) by March 30th. Note that while the session descriptions are up to 2500 characters, individual presentations in dedicated sessions are limited to 500 characters. Contact one of the above if you have questions. (As of April 27th, several LIS-focused sessions were submitted but the scheduled meeting is canceled and subject to re-scheduling.)