



**Water Quality Monitoring Workgroup
Conference Call
Meeting Minutes, Wednesday, June 27, 2019**

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

Holly Drinkuth—TNC (Connecticut CAC Co-Chair)

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

Peter Linderoth—Save the Sound (STS)

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

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

Audra Martin—NEIWPCC

Katie O'Brien-Clayton—CT DEEP

Jim O'Donnell—U Conn.

Leah O'Neill—EPA, Region 1

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

Paul Stacey—Footprints in the Water

Kelly Streich—CT DEEP

Mark Tedesco—EPA, LIS Office

Agenda:

1. LISS Updates, Workgroup Charge for October Management Meeting (see technical workgroup guidance attached and previously distributed) —Mark Tedesco
2. Brief review of monitoring results from last year (see attached draft report)—CT DEEP and IEC
3. Brief overview of current monitoring season efforts to date—CT DEEP, IEC, NYC DEP, UWS, others
4. Other topics as needed, please bring needed items to my attention.

Attachments sent in advance: 1. LIS Technical Workgroup Guidance 2019, and 2. DRAFT 2018 Combined Report 6.24.19

1. Workgroup charge for October Management Committee meeting--Jim Ammerman started the meeting by asking Mark Tedesco to describe the background and need for the requested workgroup input as listed in the Technical Workgroup Guidance. This input is in preparation for the two-day Management Committee meeting on October 23-24, 2019 and is due by August 15. Mark noted that the LISS has received increased funding for the last three years and the House of Representatives has approved \$21 M for Fiscal Year (FY) 2020. The final budget remains unclear but even a Continuing Resolution at the FY2019 level would provide \$14.6 M. These recent increases have facilitated an increase in LIS monitoring and modeling efforts to address the Ecosystem Targets of the CCMP. They may also allow additional efforts if data gaps and needs are identified by the workgroup. Therefore, the workgroup needs to list current progress on CCMP implementation actions and any additional activities needed to fill important gaps. Finally, any issues requiring Management Committee guidance should be listed for

discussion. This information will be put together with other information from multiple sources, including a Science Needs Assessment being compiled by Jim Ammerman, for consideration at the October Management Committee meeting. In response to a question by Michele Golden about individual vs. a workgroup response, it was noted the latter was requested. Jim Ammerman, as Workgroup Chair, said he would collect, augment, and summarize any input from workgroup members submitted by July 22nd and distribute for further discussion prior to the August 15th deadline.

Paul Stacey asked whether there was one summary document of progress on all the ecosystem targets, a question deferred for further discussion after the meeting. (This discussion revealed there was no such summary document but that developing one might prove useful.)

Jim O'Donnell asked about the necessary field observations required for the new Long Island Sound Integrated Model and whether or not they should be included in the workgroup input. Mark Tedesco replied that such field measurements were not necessarily included as part of the modeling effort and should therefore be explicitly listed in the workgroup input. He noted that much of the needed information on benthic and water column respiration has either been recently completed or is currently funded by the LISS research program. Mark stated that the modeling RFP should hopefully be released by NYCDEP in the near future.

2. 2018 Hypoxia Report--Katie O'Brien-Clayton described some of the challenges of completing last year's joint hypoxia report with IEC, which was distributed in draft form prior to the call. She noted that there had been personnel turnover at IEC as well as well as significant changes in the report's format, with reductions in the text but an increased use of hyperlinks. The report has also been reviewed by internally at CT DEEP and externally, and the final report will hopefully be released in about two weeks. Overall, in 2018, the hypoxic area continued to decline even though the wastewater nitrogen load increased slightly.
3. 2019 Monitoring—At the beginning of the call Jim Ammerman asked Jim O'Donnell about the lack of current real-time data from the Execution Rocks LISICOS buoy. Jim replied that the buoy was collecting data but that the data link was not working. He also mentioned that the Central Sound buoy, which has previously communicated by cellular phone, was now out of cellular range and was being transitioned to a satellite phone system.

Matt Lyman mentioned that though jellyfish had appeared in LIS this spring, there was no continuation of the jellyfish bloom into the summer as is often seen. There has also been no appearance of ctenophores this year.

Peter Linderoth called in from Eastchester Bay to discuss the Unified Water Study (UWS). This year's effort started on May 1 with 22 groups sampling 37 embayments for Tier 1 parameters and 7 groups sampling 13 embayments for Tier 2 parameters. Tier 2 includes nutrients, continuous oxygen measurements, and macrophyte video surveys. Some embayments have already shown oxygen declines. All UWS nutrient and chlorophyll *a* samples are now being run at IEC. Peter also noted that all 2018 UWS data had been entered into a UWS database which is available on their website (<https://www.ctenvironment.org/unified-water-study>) and also into STORET.

In a follow-up note after the meeting, Evelyn Powers said that IEC started their weekly monitoring runs last week (6/25/19) which will continue weekly through mid-September (with BOD/TSS/nutrients/chlorophyll a biweekly). They are considering parallel 30-day BOD analyses as a pilot to see if that makes a difference in observing results above their detection limit of 3 mg/L.

Beau Ranheim said that the NYCDEP boat would be back in the water next week following repairs from an engine room fire which caused extensive damage. He noted that the report on last year's monitoring activities was in the editing process.

Matt Lyman mentioned that CT DEEP's monitoring program was working closely with two of the new LISS-supported research projects, Penny Vlahos and colleagues, "The Long Island Sound Respire Program (LIS Respire)"; and Maria Tzortziou and colleagues, "Refined Integration of Remote Sensing with Biological Parameters for Improved Management of Long Island Sound Water Quality". The LIS Respire project conducted their first cruise with CT DEEP last month and have instrumentation to measure both continuous surface alkalinity and pCO₂. Matt said that the Respire Principal Investigators intended to leave the alkalinity instrument on the ship for continued measurements and that it measured surface samples continuously and could also be used for spot sample from other depths. Jim Ammerman suggested that it was important to continue these alkalinity measurements and couple them with current pH measurements in order to characterize the carbonate system.

Leah O'Neill mentioned that EPA has recently sampled for nutrients and other parameters at the mouth of the Connecticut River and from the Shelton, CT, to the mouth of the Housatonic River. In future years, USGS will take over this sampling and also include the Thames River.

4. Other Items Added--Paul Stacey noted that the Connecticut application for a National Estuarine Research Reserve (NERR) was submitted to NOAA on April 1, 2019, and that it includes two sites in the Connecticut River and another two on LIS east of Groton. He mentioned that there is a standard systemwide monitoring program at all NERR sites and these CT NERR sites will add new monitoring locations in LIS. More information is at: https://www.ct.gov/deep/cwp/view.asp?a=2705&q=575062&deepNav_GID=1635

Jim Ammerman mentioned that Evelyn Powers had raised the issue of conducting BOD measurements and whether they were worth continuing. Matt Lyman stated their 30-day measurements were useful, they usually produced detectable results of 2.5-3 mg/l, though usually less than 5. They also measure a time course of nitrate. Jim O'Donnell observed that these rates seemed low compared to other measurements in the Western Sound. IEC's BOD measurements are apparently only 5-day incubations and therefore yield low values.

Mark Tedesco asked if there had been any reports of HABs so far this year, Katie thought that there had been a bloom in Groton which closed shellfish beds, and Jim Ammerman mentioned possible blooms in Northport Harbor and the Long Island South Shore.

Finally, Paul Stacey noted that CT DEEP was conducting its triennial review of water quality standards. Information is on their website at: https://www.ct.gov/deep/cwp/view.asp?a=2719&q=325618&deepNav_GID=1654