Watershed and Embayments/ Water Quality Monitoring Work Group Meeting Notes
Wednesday, August 10, 2022
Meeting conducted remotely due to COVID-19

Attendees:

Casey Abel, EPA (EPA Lead)
Denise Argue, USGS
James Ammerman, NEIWPCC
Mary Arnold, NYSDEC/NEIWPCC (Co-chair)
Emma Coffey, CTDEEP
Sarah Crosby, Maritime Aquarium
David Dickson, UCONN
Melissa Duvall, EPA
Holly Drinkuth, TNC
Guy Foster, USGS
George Hoffman
Timothy Hunter, CTDEEP
Lillit Genovesi, NYSG
Mary Beth Hart, CTDEEP
Elizabeth Hornstein, NYSG
Gavin Jackson, CTDEEP
Heather Johnson, Friends of the Bay
Marlene Krajewski, CTDEEP
Ben Lawton, EPA
Jessica LeClair, CTSG
Jiayu Liu, NYSDEC
Matthew Lyman, CTDEEP
Jonathan Morrison, USGS
Esther Nelson, EPA (EPA Lead)
Katie O'Brien-Clayton, CTDEEP
Victoria O'Neill, NYSDEC
Jimena Beatriz Perez-Viscasillas, NYSG
Beau Ranheim, NYSDEC
Samarra Scantlebury, NYSDEC
Nikki Spiller, Harbor Watch
Kelly Streich, CTDEEP (Co-chair)
Cayla Sullivan, EPA
Nikki Tachiki, EPA
Tim Visel
Penny Vlahos, UCONN
Gregory Wilkerson, NYCDEP
Abigail Winter, CTDEEP

Introduction:

The joint meeting of the Watershed & Embayments and Water Quality Monitoring Work Groups was called to order at approximately 10:00am in the Teams Meeting. The differences between the WQMWG and WEWG is the WQM looks at primarily offshore (but does look at inshore data as well) data. The WEWG looks at data from the standpoint of the impact from land and also considers non-point source mitigation actions, and how that impacts the embayments and open waters of Long Island Sound. We would like to encourage joint meetings between similar workgroups to improve efficiencies for overlapping topics.

New EPA employees Ben Lawton and Melissa Duvall, they will be key to increasing our data analysis efforts, which will be an emphasis of the water quality monitoring work group.

Coastal Acidification Monitoring – Cayla Sullivan EPA

Cayla presented an overview of the collaborative efforts to implement a long-term coastal acidification monitoring program in Long Island Sound and it's embayments. Acidification impacts many different processes and species in the water column, but interaction with other stressors like eutrophication enhances acidification impacts. Currently in Long Island Sound, acidification effects associated with climate change are undetectable, but being an urban watershed with high populations, we do encounter these other stressors, so that's why it's important to start monitoring now to understand impacts and better prepare for the future.

In the summer of 2021, the Indicators Team discussed adding coastal acidification indicator and EPA intern, Jordan Welnetz, inventoried the existing acidification data sets available within the Long Island Sound range. We concluded that we don't have enough data to support the acidification indicator for Long Island Sound. The WQMWG highlighted the need to address gaps in coastal acidification data through their work plan. WQMWG

which prioritized the need to initiate long-term monitoring for coastal acidification in the Sound. An informal work group met on October 26th to discuss what this may look like, including goals, partners, methods and sites for acidification monitoring. LISO worked with partners that have existing long term monitoring programs to add coastal acidification parameters at their annually monitored sites. LISS has several different programs including: Save the Sound's Unified Water study, a citizen science effort focused on understanding the water quality conditions, UCONNs LISICOS buoys, IEC's water quality monitoring in the western Sound and Narrows, and Connecticut DEEP surveys 17 stations throughout the open sound. USGS monitors freshwater inputs into the sound. Additionally, the Long Island Sound Respire project by Penny Vlahos's lab is the first study to understand comprehensive and simultaneous alkalinity and carbonate system parameter distributions in LIS. The study found significantly low seasonal aragonite saturation values along the Long Island Sound central axis persist longer than hypoxic conditions and propose that aragonite saturation be used as an indicator.

On April 21, 2022, the LISS Management Committee approved the following partners to initiate a coastal acidification monitoring within the sound and its embayments: CT DEEP, IEC, USGS and UCONN. The first year of this program will focus on understanding the variability of acidification trends in the open sound and embayments,. Later, LISS will focus on the multi stressor interactions and their impacts on foundation species (i.e., shellfish).

Joint Work Group Opportunities

- Coastal Acidification Monitoring
- Harmful Algal Blooms
- Pathogen Monitoring

Workplan Discussion

WEWG co-chairs and EPA leads presented a draft Workplan for FY23 based off last year's workplan. Projects that focus on the watershed were mentioned, as many projects only address the embayments.

Workplan review should include recognizing which topics and their associated Implementation Actions are still a priority and if they are short-term, long-term or both. Workplan reviews will be due by August 29th, 2022, please send any comments to: Mary.Arnold@dec.ny.gov, Abel.Casey@epa.gov nelson.esther@epa.gov and kelly.streich@ct.gov.

Next Meeting & Adjournment – Mary Arnold

- Meeting was adjourned at 12:00pm.
- Next meeting: November 9, 2022

NALMS call for abstracts – Jim Ammerman

Please find the link to the NALMS conference which will host a session (#39) Titled: Effective Use of Monitoring Data to Demonstrate Improved Estuarine Ecological Health from Management Actions. This session will be led by Katie O'Brien-Clayton (CT DEEP) and Jim O'Donnell (UConn).
https://www.nalms.org/2023nmc/call-for-abstracts/

EPA Coastal Acidification Sensors
Measuring Coastal Acidification Using In Situ Sensors in the National Estuary Programs (epa.gov)
Integrating High-Resolution Coastal Acidification Monitoring Data Across Seven United States Estuaries