

**Water Quality Monitoring Work Group
TEAMS Online Meeting
June 1, 2022 – Meeting Summary**



Attendance

Casey Abel—EPA
Jim Ammerman (Chair)—Long Island Sound Study (LISS)/NEIWPCC
Jordon Bishop—NEIWPCC
Richard Friesner—NEIWPCC
Michele Golden—New York State Department of Environmental Conservation (NYSDEC)
Jim Hagy—EPA ORD
Kate Knight—CT DEEP
Matt Lyman—Connecticut Department of Energy and Environmental Protection (CT DEEP)
Michelle Lapinel McAllister-- Coalition to Save Hempstead Harbor
Jon Morrison—United States Geological Survey (USGS)
Esther Nelson—EPA
Katie O’Brien-Clayton—CT DEEP
Jimena Perez-Viscasillas—NY Sea Grant
Evelyn Powers—Interstate Environmental Commission (IEC)
Beau Ranheim—NYCDEP
Samarra Scantlebury--NYSDEC
Sarah Schaefer-Brown—New York Sea Grant
Paul Stacey—Footprints in the Water
Kelly Streich—CT DEEP
Cayla Sullivan-- EPA, LIS Office
Nikki Tachiki-- EPA, LIS Office
Maria Tzortziou—CUNY
Alicia Tyson—CT Sea Grant
Jamie Vaudrey—U Conn
Kimarie Yap—IEC

Jim Ammerman started the meeting with a few announcements.

1. Work groups are again requested to provide work plans by October 1, 2022, with the group’s project priorities highlighted. Unless the budget increases again, opportunities for new projects may be limited but work group members should consider current program gaps.
2. This work group overlaps to some extent with the Watersheds and Embayments Work Group (WEWG) and discussions are underway to reduce any duplication.
3. The National Water Quality Monitoring Council Conference, to be held next April in Hartford, CT, or Virginia Beach, VA, has a session submission deadline on June 10. While Jim Ammerman had no experience with past conferences, Jim O’Donnell, Katie O’Brien-Clayton, Matt Lyman, Esther Nelson, and Jim Hagy had all attended past conferences

and a robust discussion ensued. Several noted that the conference attracted a lot of consultants, contractors, and government staff involved in monitoring. There was significant interest in proposing a LIS-focused or broader estuarine session. (Jim Ammerman did submit a session proposal titled “Effective Use of Monitoring Data to Demonstrate Improved Estuarine Ecological Health from Management Actions” by the extended June 24th deadline and the proposal was accepted.)

Environment Justice (EJ) Presentation and Discussion: Jimena Perez-Viscasillas introduced herself as the LISS NY Outreach Coordinator with New York Sea Grant and Co-chair of the Environmental Justice (EJ) Work Group along with Nikki Tachiki and Bessie Wright, both of EPA. Jimena gave a short presentation, starting with a definition of EJ. She showed a figure with four panels, Inequality, Equality?, Equity, and Justice. The figure showed an apple tree and two children trying to pick apples, with increasing equality of tools and opportunities in going from Inequality to Justice. She reviewed the EPA definition of Environmental Justice and the sub-categories of Fair Treatment and Meaningful Involvement. Jimena concluded by defining the terms Diversity, Inclusion, Equity, and Underserved.

Niki Tachiki followed by introducing herself as an EPA Region 2 LISS Coordinator and an EJ Work Group Co-chair. Nikki reviewed the four major themes of the 2015 LISS CCMP as well as the three cross-cutting principles, one of which is environmental justice. She highlighted the EJ Goals from the CCMP including that all LISS partners should incorporate EJ as an integral part of their ongoing work. The LISS EJ Work Group was established in 2020 and developed a mission statement and two major strategies, both inward- and outward-looking. For Fiscal Year 2022 they initially are focused on two Implementation Actions, SM-17, and SC-4, which engage underrepresented stakeholders and support government EJ initiatives, as well as listing numerous remaining priorities. Nikki then presented the EJ Work Group’s five-year work plan which includes the problem, goals, objectives, tasks, and outputs/results. She emphasized their conversations with other work groups, such as this one, with the goal of eliminating the need for EJ as a separate work group by incorporating EJ into all LISS activities.

Nikki concluded by listing the questions to be discussed in the breakout rooms (see below) and then asked for any other questions.

Questions:

1. Jim Ammerman asked about the 40% of the Bipartisan Infrastructure (BIL) Funding that is required to benefit underserved communities and Nikki confirmed that this was the case and that the LISS will have to report on it in detail.
2. Paul Stacey commented that we tend to focus on the social side and not so much on the ecological side and need to include both and focus more on the ecosystem services that can be brought to the underserved communities.

Questions for breakout rooms (all detailed answers in Appendix A at end):

1. What are ways your data could be used by communities?

2. What are ways you can better share your data and make it more accessible to local communities?
3. What are ways to incorporate equity and environmental justice concerns in the monitoring sites of your programs?
4. Are there ways to incorporate equity and environmental justice considerations in hiring season workers through your monitoring programs? Might there be barriers preventing certain groups from successfully applying for those positions?
5. What kinds of tools would be useful to you to better integrate environmental justice into your projects and work?
6. What are additional ideas you have for incorporating equity and environmental justice considerations into your monitoring programs? What other ideas do you have that we haven't discussed?

Post Breakout Discussion: Jimena asked whether anyone from her group wanted to provide a recap of their discussion. Jim Ammerman mentioned that Jamie and Alicia were discussing Native American groups as the breakout rooms closed and wondered if they could finish that discussion. Alicia mentioned that there is ongoing work with the USGS tribal liaison who works with Federally recognized tribes throughout the New England area and is increasing efforts to work with state tribes as well. They are currently developing tribal nations committees related to the USGS compound flood risk model and some other efforts to facilitate and consolidate work being done. There is already a lot of good water quality monitoring work being done despite lack of resources and connections. State-recognized tribes have limitations which may be an opportunity for this group to help heal. Jamie Vaudrey has an interest as does Maria Tzortziou who has been involved in similar discussions with Alaskan native groups.

Jimena's group started with the question "What are ways your data could be used by communities?" However, they stepped back to from the data, which may be a challenge to understand, and discussed lack of access and talking to the communities about what are their concerns. Realistically some water quality parameters may not mean much to many of these communities. There was further discussion about improving communication tools, to make them easy to use and engaging. An example would be using story maps to tell stories and tie these issues to the communities' real-life concerns. It was noted that NYS DEC's Info locator tool was hard to use even for DEC staff. Always have test or focus groups of citizens who are not science-savvy participate in developing new tools to make sure they can be used. There were comments about creating better access to data via platforms and tools and asking people what that would look like. There was also mention of not burdening people with a lot of surveys since there are already too many. We need to better integrate our efforts and what we already know about tools and accessibility. It was mentioned that there already is a lot of water quality data that is not being used so we need to find out what information that EJ communities would find useful and co-create it with them. Jimena added that it was a rich conversation and invited others to share.

Nikki's group discussed the question "What are ways to incorporate equity and environmental justice concerns in the monitoring sites of your programs?" and she invited any in her group to offer insights. There was discussion of how current monitoring sites have been selected and how to consider EJ in selection of new sites or new priorities. One of the limitations may just be staff time. There was also a more general discussion about including more environmental education in EJ communities, not necessarily in connection with water quality monitoring but as a good idea in general.

They also discussed EJ considerations in hiring seasonal workers. Nikki asked Jim Hagy to share what he had discussed. He suggested paying people for their time, even if they are unskilled volunteers, but paying them tells them they are wanted and is a way of honoring their time spent. Then they discussed what kinds of tools would be useful to better integrate EJ into their projects. Kelly Streich suggested having contacts in the community to reach out to who might be interested in the monitoring going on and able to use the information. Having those community contacts could be very important.

Nikki also mentioned trainings and workshops to educate this work group and other LISS partners on equity and EJ. The EJ work group is planning to assess our own EJ literacy and then to provide trainings for our LISS partners. She mentioned Jim Hagy's suggestion that we ask about what we have done to institutionalize inequitable outcomes. While it is good to educate ourselves about EJ it is also useful to ask what practices we have institutionalized which led to inequitable outcomes. Jim pointed out that it is not just practices we have institutionalized but long-established hiring and other procedures by EPA and others, it is good to be aware of them. Jim O'Donnell pointed out that priorities established for funding have disproportionate outcomes, largely because of the structure of the Management Committee which does not include representatives from EJ communities. Projects like living shorelines and dune restoration will likely exclude EJ communities and we should be aware of that. Jimena noted that she thinks about this all the time since these groups were not involved in writing the CCMP, our guiding document, it is not likely to benefit them. She noted that the Jamboard would remain available for help in planning the work group's FY2023 priorities.

Jim Ammerman concluded the EJ discussion noting that he was energized by it and that we could have used four facilitators to have smaller breakout rooms and even more discussion. He asked how long the Jamboard should be kept open, and Jimena said it was up to the group. Jim suggested that while there was no hurry to close the Jamboard, people should make additional entries within the next week to capture important ideas. He further suggested that while it was an interesting discussion it also shows how much more work is needed to address these issues and achieve some of the goals. Jim Ammerman asked for further comments on the EJ discussion and Paul Stacey mentioned that he had just emailed out a couple of papers on "historical redlining" for environmental purposes that he thought were worth reviewing.

Finally, the meeting concluded with monitoring updates from several monitoring groups. Michelle McAllister is excited about her new position as Programs Director for the Coalition to

Save Hempstead Harbor, Carol DiPaolo is now the Water Monitoring Coordinator, and they also have a new Associate Director. Matt Lyman of CT DEEP said they lost the generator on the Dempsey so are off to a slow start, they will have to see how the backup generator works and hope to leave tomorrow. Kimarie Yap from IEC said they would start their weekly monitoring at the end of June, and she will be mapping chlorophyll as well as oxygen. Jim O'Donnell said that the Execution Rocks and Western Sound Buoys are deployed and the ARTG buoy will go out next week, also the deployed buoys are telemetering their data. Kelly Streich commented on the embayment monitoring and said the continuous monitors at Southport Harbor and Saugatuck have been deployed. There will also sediment and macrophyte sampling during the summer. Norwalk and Mystic River monitoring is continuing from last summer with continuous monitoring, discrete samples, and some sediment and macrophyte samples as well. Maria Tzortziou said that her project was still sampling and getting satellite measurements of chlorophyll, CDOM, and DOC. She mentioned coordinating with a shipboard DOM sensor that Matt said CT DEEP was working to put into service. In conclusion, Jim Ammerman thanked Nikki and Jimena for leading the EJ discussion and everyone else for actively participating, he noted that a lot of work remains to be done.

Appendix A: All Jamboard Responses to Questions in the Breakout Rooms

1. What are ways your data could be used by communities?
 - a. Hypoxia data and maps continue to show areas in western LIS with low DO associated with nitrogen inputs. Communities in the western sound could use these products to take local action- (e.g., elimination of CSOs). Other groups within CT DEEP -beach data, stream data, etc., - also show issues related to these sources.
 - b. Advocate (pathogen data, untreated sewage)
2. What are ways you can better share your data and make it more accessible to local communities?
 - a. Interactive dashboards, schools, go back to printed materials, attend local commission meetings
 - b. Story Maps are very powerful -- summarizations, interactive, storytelling, tying to real-life
 - c. Tools that are interactive, engaging in the language of non-science speakers. game-based, story-based.
 - d. Think about it from their lenses, their realities of life, and how they access info. Think of language, accessibility (ease of use, tech learning curves, not knowing where data is, etc.)
 - e. Do not assume capacity does not exist within those communities
 - f. Important to note these communities have usually been highly surveyed already -- so we must be mindful of that. Do not duplicate but integrate.
 - g. Test/focus groups to test how easy to use the tools we make are (instead of just internal experts)

- h. Integrated water quality (and others) data portals that consider what is needed from communities. maybe survey communities to better understand what they need
 - i. Building genuine friendships and relationships with these communities and ensuring a co-creative process from the outset
 - j. I would also encourage the idea we meet communities where they are at and not expect them to come to us (Alicia/CTSG)
 - k. Hosting webinars on how to access and use these tools
 - l. Get feedback from communities on what info they would find useful and how they'd like it communicated
 - m. Some groups ARE already interested in info and monitoring, while others are not.
 - n. Think about other potential barriers -- maybe data is not the issue. what we need to figure out is how to engage communities in EJ areas in these programs to better understand their needs
 - o. Perhaps it begins with simply improving accessibility to LIS
 - p. Rethinking the creation of new tools. thinking outside the box. if tools are out there and people aren't using them, perhaps we need to be thinking of something else.
 - q. What do we need to do to improve access? Considering existing barriers and systems
 - r. Maria's experience echoes this -- communicating with communities in the design of monitoring programs
 - s. In Peter's experience, the engagement was more useful and powerful than the data. Getting to know what interests them, what matters to them, and what monitoring program would work best. designing it with them
 - t. It should not be 'how can we make them use our data?' Connecting them with these resources first and asking them their needs without expectations first is more effective
3. What are ways to incorporate equity and environmental justice concerns in the monitoring sites of your programs?
- a. CT DEEP sites are fixed in LIS, but our other programs and in the embayments can look at our EJ community maps, listen to concerns of members to target stations. (Katie/CT DEEP)
 - b. Engage underserved community members as participants in monitoring. (Hagy/EPA)
 - c. Monitoring sites tend to be included for a "reason." Make sure that the concerns of underserved communities are reflected in those reasons. (Hagy/EPA)
 - d. Evaluating the spatial design of sampling to ensure that some of the EJ priority areas are included. Often the areas are represented in the monitoring plans we develop as these areas have historical issues with contamination. (Jon M/USGS)

- e. For embayments, target data collection & restoration in EJ areas or areas that contain resources that are easily accessed by EJ populations (KS/CT DEEP).
 - f. Make an infographic of the water quality monitoring work we do and what the data tells us. Have it written in the languages spoken by the people in the community (Kimarie/IEC)
 - g. Add in the flexibility to respond to requests for more data collections from areas of interest to the EJ community. (Matt/CT DEEP)
 - h. incorporate environmental education programs in underserved communities (Michelle/CSHH)
 - i. Ask community members what concerns they have about local embayments and LISS waters (Kimarie/IEC)
 - j. Is there a process for the public or community groups to provide suggestions/feedback on sites and frequency? (Sarah/NYSG)
 - k. Providing more opportunities for the community to learn about the reason why you are monitoring, what the results are, what the data is being used for, what are the actions that can come out of the monitoring program (Sarah/NYSG)
 - l. Fund community groups to do sampling and reporting
 - m. It's interesting that the members of this breakout room do not include anyone (except Kimarie) that collect bacteria data. I think most community members are looking to know if they can swim/fish in the waters (Katie/CT DEEP)
4. Are there ways to incorporate equity and environmental justice considerations in hiring season workers through your monitoring programs? Might there be barriers preventing certain groups from successfully applying for those positions?
- a. There are definitely barriers. Trying to figure out who to send position announcements to is difficult I usually just send to LISS constituents and request they share. Syma Ebbin's list serv is a great resource for students.
 - b. Sometimes just getting to work can be a problem - transportation is not always easy, and public transportation does not go everywhere, especially to field sites.
 - c. USGS uses a wide variety of tools for incorporating diversity and inclusion in its hiring practices. These include using social media in advertising positions and working with EJ communities to list job postings. (Jon M/USGS)
 - d. Getting the word out that these positions are even available can be a challenge. Due to a shortage of lifeguard applicants several news programs would air short clips about opportunities Matt CTDEEP
 - e. If possible, make sure you offer above minimum wage pay for interns. They shouldn't have to choose between affording to live and getting great experience (Kimarie/IEC)
 - f. Hire people if they don't have all the preferred qualifications & train them. People w/ less experience have a hard time getting their foot in the door, esp. compared to people w/ connections (Kimarie/IEC)
 - g. Provide competitive compensation for the positions.

