



A Program of the New York State Department of Environmental Conservation

Hudson-Harbor Educators Work Group

January 24, 2024

Minutes

Shared Google Folder: <https://drive.google.com/drive/folders/13SSRnA9UtYWNGbBbxGX-o0qyYZKRdIRE?usp=sharing>

Attendees:

1. Sarah Archbald, Orange County Water Authority
2. Marieke Bender, Battery Park City Authority
3. Chris Browser, NYSDEC Hudson River Estuary Program
4. Rob Buchanan
5. Eli Caref, Billion Oyster Project
6. Hugh Carola, Hackensack Riverkeeper
7. Chey-Ann Coleman, Bronx River Alliance
8. Avalon Daly, Hudson River Park
18. Akilah Lewis, NYCDEP
19. Jake Madelone, Waterfront Alliance
20. MaryLynne Malone, Orange County Water Authority
21. Meghan Marrero, Mercy University
22. Haley McClanahan, Brooklyn Bridge Park Conservancy
23. Rosana Pedra Nobre, NY-NJ Harbor & Estuary Program
24. Annabel Posimato, Ciara/Shirley Chisholm State Park!
25. Brianna Rosamilia, Rockland Soil and Water Conservation District
9. Sierra Drury, Hudson River Park
10. Christina Edsall, CURB
11. Maggie Flanagan, Guardians of Flushing Bay
12. Henry Freundlich, NYSDEC
13. Ashley Hickey, Orange County Water Authority
14. Jen Kepler, Gowanus Canal Conservancy
15. Jennifer, LES
16. Toland Kister, Hudson River Park
17. Zack Klyver, Gotham Whale
26. Safiya
27. Isabelle Stinnette, HEP
28. Rachel Swanson, Hudson River Park Trust
29. Shino Tanikawa, NYC Soil & Water Conservation District
30. Margie Turin, Lamont-Doherty Earth Observatory
31. Audrey Van Genechten, NYSDOH
32. Tina Walsh, Hudson River Park
33. Tess Wenstrup, Newtown Creek Alliance
34. Ashley Whited, RIPA

Effective Education: How do we determine impact?

Dr. Meghan Marrero is Professor of Secondary Science Education and Co-Director of the Mercy University Center for STEM Education and joined the work group to discuss evaluations and how we determine the impact of effective education programs. Dr. Marrero provided an overview of program evaluations, the process of collecting, analyzing and using data to assess the program's effectiveness. The goal of evaluation is to use the data collected to see what people really like and how we can show what we are doing is great and impactful. Dr. Marrero discussed the different stages of evaluating and provided

examples to consider. She encouraged the work group to consider collecting different types of data to assess programs and the key to a strong evaluation is planning. Define your objectives, what do you want people to get out of your program and use this to define your questions. Think about how you will know whether your objectives have been met. Dr. Marrero discussed the importance of both qualitative (open-ended questions, interviews, student work) and quantitative (existing measures, Likert scales, ratings, content tests) data. There are existing instruments that you can use for quantitative data for environmental perception scales or identify scales (which can be tailored to an audience), and there are easy to use statistic tools to run T-test and other statistics with your data. Dr. Marrero also recommended that you close the loop – reflect on your findings and address those gaps. Resources were shared with the group which is available by [clicking here](#).

Tina Walsh asked how to best engage evaluators before a grant is awarded? Dr. Marrero shared that most evaluators would work with you to write grants to ensure evaluation is a funded element of the proposal. Chris Bowser asked how evaluations were used to change curriculum or programs? Dr. Marrero shared an example on a STEM teacher PD that was externally evaluated and what they learned was that the teachers were extremely stressed out in the end. This outcome was not their intention nor expected but, in this data, the PD was later changed to provide a lot more handholding and support for the teachers to reduce the stress. Margie Turin asked if compensation or incentivizing is needed to complete evaluations? Dr. Marrero recommended holding the evaluation in the moment as part of the program, not later. Incentivizing people in focus groups or research is more common, and with kids, she sometimes incentivizes with food.

Safiya shared her pre/post student surveys through art and asked what kind of information is justifiable for impacts from artwork? Dr. Marrero shared that there is an instrument that you can use to get numbers from art, but you can show the pre/post against one another to show improvements or changes in a student's perception. Alternatively, you can record students to develop transcripts that can then rate. Shino Tanikawa shared her challenge around behavior change and Dr. Marrero indicated that there are 10 aspects that inform behavior change. There are some scales and instruments that look at behavior, but this is still very challenging. Research shows that getting at people's values and beliefs is where behavior change happens, but it is not a straight line and is challenging. Christina Edsall shared the program is moving away from outcomes and leaning towards impacts, and the big barrier has been going through institution review boards (IRB) and asked if there are any tips to avoid IRBs. Dr. Marrero shared that it's hard to avoid IRBs when working with kids, but if you can talk to your IRB chair there is likely a way to figure out something that is amenable. Akilah Lewis asked for advice on teacher evaluations for student perspectives. Dr. Marrero shared it's not ideal, but you can ask for common themes of what is going on with their students – whether they've become more interested in the topic.

Action: Please feel free to reach out Dr. Meghan Marrero at mmarrero3@mercy.edu.

State of the Estuary Report & Collective Impact

Isabelle Stinnette shared a preview of the State of the Estuary 2025 report which looks at a sweep of environmental indicators to determine the health of the estuary. HEP will be moving to an online platform for data exploration and based on recommendations from this group, a short trifold brochure that partners can share with the public as a handout. The State of the Estuary report looks at several indicators

across Water Quality, Habitat Restoration, Contamination, Public Access, and Community Engagement. Isabelle provided a preview some analysis that has been drafted and noted that there is a need for more community engagement and public access indicators. Isabelle shared that there is an interest to go beyond effort and focus on actual results of impact. This would be a shift to more qualitative indicators that tell the story of how community engagement is changing in the estuary.

Chris Bowser asked about events held and whether tracking total participants is viewed as effort or results spectrum of an analysis? Isabelle shared that this is a good question and unclear as to how you define the goal of community engagement. If it is increasing number of people then that could be a result, but if it's to change behavior the total participants could be viewed as effort. Shino Tanikawa shared that reviewing the Action Agenda goal could determine the right indicator for engagement. Rosana Pedra Nobre shared that HEP is working on the next revision of the Action Agenda where this group can further voice the needs of educators to be reflected in the Action Agenda. The [2017-2025 Action Agenda](#) education action was to establish this work group. Margie Turin reflected on the number of indicators that seemed to need a staff person to measure and assess. She added that some of the larger events, there are some capacity issues that do limit where those events can be held so while the expansion of sites and the number of participants at those events may grow to some extent, there are limits to that growth. Tina Walsh reminded the group that this is where the collective impact survey may be helpful in adding to the indicator list and color in the work that everyone in this group does.

Rosan Pedra Nobre shared some preliminary graphs of the two collective impact surveys. As a reminder, this group spent a good portion in 2020 defining whether a collective impact survey is a good idea, later defining the right fit of questions. We began to collect information from calendar year 2022 and 2023. The data shared was preliminary and open for discussion. Shino Tanikawa asked whether the same groups took the survey and if not, the results to compare across the years may skew the analysis. Rosana indicated that there are a few organizations that may have only answered for one year of the survey, but some QA/QC was done to remove duplication. Tina Walsh suggested adding a comment box for partners to add additional details to their numbers. Margie Turin shared that this survey largely targets the Harbor Estuary region and that it may be odd to highlight or call out specifically the Harbor Estuary region from all the data. Isabelle Stinnette asked the group if they would consider adding quantitative questions, perhaps from the lens of being an educator in the estuary which could provide the results this group is seeking to highlight. Chris Bowser thanked everyone for their comments and raised the need to balance between the ask and time commitment we are asking from partners. Rosana added that the small committee for collective impact will come together to review the questions and determine which questions to sunset and new ones that we want to add to.

Action: (1) Collective Impact Subcommittee to meet to reflect on this conversation and the comments received from the initial two surveys. Anyone interested in joining the subcommittee, please reach out to Bowser.

(2) If you have not done so already, please consider taking a few minutes and fill out the collective impact surveys. For 2022, <https://forms.gle/nrWHyRY52eAJsYmM8>, and for 2023, <https://forms.gle/LRmLmGcAAqPEmYAFa>.

Partner Updates

- **Harbor Protection and Stewardship with NY Aquarium:** Join NYCDEP and the [New York Aquarium](#) for a Harbor Protection and Stewardship professional learning opportunity on **Friday, February 23 from 10:00 AM - 12:00 PM**. Learn about efforts to improve harbor water quality, including stormwater management, green infrastructure, ecological restoration, and stewardship. Explore a coral reef tunnel where sharks swim around you and view a canyon edge filled with marine life that takes inspiration from the ocean right outside the door. Enjoy this guided tour of the Aquarium without the crowds! NY State teachers are eligible to earn 2.0 CTLE hours for participating in this session. Space is limited. Register: [Harbor Protection and Stewardship with the NY Aquarium](#).
- **Wastewater Resource Recovery in NYC:** Join NYCDEP for a professional learning opportunity on **Wednesday, March 12 from 4:30 - 6:30 PM** at the Newtown Creek Wastewater Resource Recovery Facility. Learn about NYC's wastewater treatment process from experts in the field and view our educational exhibits on waste-to-energy and biogas-to-grid projects while touring the Newtown Creek facility in Brooklyn. Educators booking trips to the Visitor Center at Newtown Creek this spring will have the chance to see firsthand what their students will be learning. NY State teachers are eligible to earn 2.0 CTLE hours for participating in this session. Space is limited. Register: [Wastewater Resource Recovery in NYC](#).
- **Green Infrastructure Module:** NYCDEP is updating our green infrastructure module and it will on our website in the coming month! <https://www.nyc.gov/site/dep/environment/resources-for-educators.page>. For more information or if you have any questions, please contact educationoffice@dep.nyc.gov.
- **Day in the Life of the Hudson and Harbor:** Save the Date! October 10th, 2024!
- **Submerge:** Save the Date! May 17th and 18th. You will be hearing from Hudson River Park soon to look for partners to participate. This reflects a date change from the initial September dates to May. For more info about SUBMERGE feel free to reach out: twalsh@hrpt.ny.gov.
- **New York State Health Advice on Eating Fish You Catch:** Audrey Van Genechten shared that NYS is in the process of updating their guidelines on fish advisories for 2024 specifically looking at mercury in freshwater fish. The website and brochure will be updated early this year (by spring, before the summer) and available here: www.health.ny.gov/fish. If you are interested in receiving brochures to handout or have any questions, please contact Audrey: Audrey.Vangenechten@health.ny.gov.
- **Counteracting Biases that Women Face in the Workplace:** Please join NYSOEA's EAI Committee for a virtual bias training being held on Wednesday, February 28th from 3-4:30pm. Staff in leadership positions are encouraged to register! All are welcome! Please share this opportunity within your network. NYSOEA membership is not required. Registration is required, please [click here](#) to register. This training and its resources are developed by LeanIN, a global community dedicated to helping foster leadership, advancement, & inclusion for women in the workplace. Participants will be asked to do 15 minutes of pre-work, and during the session will engage in conversations via breakout rooms.
- **For Educators: Oysters 101 Professional Development workshop:** On February 7th, Eli Caref will be hosting a free professional development from 4-6pm. This is an interactive workshop that builds on BOP's curriculum where teachers will work in small groups to actively participate in discussion and learning exercises. Educators will also have time to ask questions and get answers about oyster biology, history, and ecology in real time. To register, please go to: <https://www.eventbrite.com/e/for-educators-oysters-101-professional-development-workshop-tickets-781433006157>

- **Harbor School Symposium:** Save the Date! May 31st, 2024, where BOP will be looking for guest reviewers. This is a fun day to interact with students on Governor's Island and see their projects. Additional details here: <https://data.bop.nyc/symposium>
- **Hudson-Raritan Estuary Student Opportunities Board:** Friendly reminder to please upload your internship and fellowship positions onto this webpage for students (high school, undergraduate, and graduate): <https://www.hudsonriver.org/article/student-opportunities-board>. Also feel free to share this board with your network and email Zoe@hudsonriver.org if you would like to get a copy of our media kit and one-pager to share with your networks. If you have any questions or need any support, please contact Zoe or Rosana.
- **Educational Resource Guide for Parents and Teachers:** Just a reminder that this tool is also available for everyone to utilize and feel free to continue to add resources to this list: <https://www.hudsonriver.org/article/educational-resource-guide>.
- **Spring American Eel Monitoring Field Trip:** Isabelle Stinnette shared that HEP is seeking to expand the eel monitoring network in New Jersey. If you are interested in participating in a field trip, please consider taking this short survey and share with your networks: <https://forms.gle/voiGhSZdR5NEqAMt7>.
- **HEP DEIJ Subcommittee:** Partners interested in joining the DEIJ Subcommittee please contact Rosana@hudsonriver.org. Details about the subcommittee can be found here: <https://www.hudsonriver.org/article/deij-subcommittee>. We are looking for new membership to continue advancing DEIJ principles throughout HEP and our partner network.