



## Water Quality Work Group Meeting

August 2, 2022

Location: Zoom (online only)

### Minutes

**Attendees:** Marco Alebus (NJDEP), Brett Branco (CUNY, STAC), Liz Butler (EPA), Christina Carrero (HEP), Philip DeGaetano (IEC), Mick DeGraeve (NJHDG/GLEC), Deanne Draeger (URBANSWIM), Mike Dulong (Riverkeeper), Tim Ebersberger (NJDEP), Melissa Enoch (NYCDEP), Jason Fagel (NYSDEC), Brent Gaylord (EPA), Siddhartha Hayes (HRP River Project), Sara Harrison (HRF), Rebecca Hill (NJDEP), Wayne Jackson (EPA), Lingard Knutson (EPA), Michele Langa (NY/NJ Baykeeper), Hildegaard Link (Rutgers), Rosana Pedra Nobre (HEP), Robert Pirani (HRF/HEP), Susan Rosenwinkel (NJDEP), Clay Sherman (NJDEP), Kim Smith (NJHDG/MCUA), Shino Tanikawa (NYC Soil & Water Conservation District, NY co-chair), Vanessa Tropiano (Rutgers), and Judith Weis (Rutgers, STAC), and Kion Yaghoobzadeth (EPA)

**Next Meeting:** November 1, 2022, at 10:30AM via Zoom

#### 1. Overview of Agenda, Introductions, and Minutes Approval

Shino Tanikawa opened the meeting and provided an overview of the agenda. May minutes were not reviewed. Approval to be requested via email.

#### 2. Frontiers of Monitoring, Modeling and Management: Assessing the Potential Impacts of Climate Change on Water Quality

Shino Tanikawa provided an overview of our Frontiers Series where we have transitioned to biannual and focused this session on climate change impacts to water quality. Shino introduced each speaker and outlined the panel session.

Melissa Enoch (NYCDEP) provided a brief overview on the challenges managing combined sewer systems and stormwater. NYCDEP has created models and databases that can be accessed through OpenData that help to better understand stormwater runoff and sea level rise in the region but recognize that resolution improvements and further data are needed. This includes refining hydrology and building out the storm sewer system including physical inspections. Melissa noted 2021 broke precipitation records largely due to Tropical Storm Elsa, Henri, and Ida. While NYCDEP has begun to build the tools needed, the agency did jump right into implementation to alleviate the pressures and flooding experienced from these storms. Melissa described some of the efforts under the Green Infrastructure Program and where NYCDEP is trying to understand how GI to manage CSOs can be used for flood mitigation. Tying the two changes the way NYCDEP builds GI. To deal with water quality, GI must capture the first flush, but to mitigate flooding, GI must capture the peak precipitation event requiring retention. This means GI needs to increase in storage which changes the design and may increase costs. Porous

concrete is being explored more for flood resilience in the street as a method that captures and stores stormwater. New unified Stormwater Rule (promulgated in February 2022) has changed the design requirement to address 10-year storm, which will significantly help the city address stormwater runoff. However, there is still more to do in communicating the risks of climate change and what that means for the region.

Becky Hill (NJDEP) shared a brief overview of New Jersey's first scientific report on Climate Change which NJDEP will aim to update periodically. The report clearly outlines the recognition of increased precipitation and intensity of events alongside sea level rise. Sea level rise, under moderate emissions, are expected to increase by 2.1 feet in 2050 and 5 feet by 2100. NJDEP is looking at risks to water quality which include stormwater and sewer infrastructure, nutrient and pollutant loading, freshwater intake, and aquifer recharge. Becky shared the [NJFloodmapper](#) tool and provided an example around the Lower Raritan River and Bay area where moderate sea level rise will significantly impact several brownfield sites, superfund sites, and directly affect low-income and minority communities. This region is currently participating in the Resilient NJ program to conduct a vulnerability assessment to improve understanding of risk associated with capped and open brownfield sites. This will help the community explore best practices for remediation given climate change vulnerabilities. NJDEP is seeking to address priority actions through the NJ Protecting Against Climate Threats (PACT) rules on development and development of programs to provide planning and technical assistance. Becky noted there is still significant work to be done to address data gaps, understand drought impacts, how climate change is integrated throughout NJ programs, and provide the funds necessary to upgrade infrastructure systems.

Vanessa Tropiano (Rutgers University) shared her team is working on improving the development of watershed plans. They are looking at incorporating climate change futures into the watershed planning as well as environmental justice priorities, categorizing wetlands and riparian zones by functional integrity, and driven through equitable stakeholder participation. Rutgers will be establishing two advisory committees, an internal NJDEP committee and another for external groups to inform the work which will be first piloted in the Raritan and Barnegat Bay watersheds. Vanessa shared the goal of the project is to help inform both local and state land use decisions through the generation of web-based mapping tools to advance watershed planning. Intended to go beyond what state or local governments may need, these tools will include several layers, but the team is seeking to incorporate a better understanding wetland/riparian function based on ecological services. Vanessa added that they will also be conducting an urban infrastructure gap analysis to better understand stormwater runoff impacts alongside models.

Shino thanked each presenter and opened the floor for members to ask questions. Judith Weis inquired on a map shown regarding Central Park flooding. Melissa indicated that the maps mask out parks because the models do not include the drainage infrastructure in it, however most parks do help the surrounding community. Rob Pirani asked what direction presenters would find helpful to increase community capacity to help research and broader questions being asked. Melissa thought HEP's RfP idea to help community's advance climate resiliency efforts is great. There is opportunity for community engagement and boots-on-the-ground data collection by local communities that would help NYCDEP

incorporate community visions into plans. NYCDEP is also working on communication strategies around cloudbursts. There is a need to receive direct input from the community. At times capacity is an issue and sometimes there is not an organized group to help coordinate these discussions. Melissa encouraged HEP to think about groups more broadly, including groups not focused on water quality. Becky agreed with Melissa and expanded that those on the ground are better at engaging and communicating with their communities. It is important to ask them what would the community support? Vanessa agreed and questioned how we get nontraditional groups to apply to grant programs is a challenge to overcome. It is likely that a group may be more focused on co-benefits rather than water quality.

Shino asked the presenters how do we move forward, away from silos, and not separate climate resiliency from water quality? Vanessa answered that in large part the tool that Rutgers is creating is to dive into this to avoid doing exactly that. From her research, Vanessa saw that across the country, we're seeing climate resiliency dealing with water quantity and not quality. The hope is that having the data you need and the tools to help will then allow you to explore climate resiliency and water quality side by side. Becky added that the state is recognizing those gaps and trying to do better. Melissa agreed and added that funding streams are siloed which does silo the work the agency does. NYCDEP's cloudburst funding stream is the first of its kind to blend mandated work with future scenario planning. These more strategic planning funding streams do help with removing those silos and that would not have happened without the impacts from Tropical Storm Ida.

Lingard Knutson commented that the projects are great for planning and can do a lot of good. However, she sees many municipalities increasing development that do not include any kind of green infrastructure. Unless this work is put into a regulatory scheme, municipalities will put money before climate change risks. Shino asked the presenters for their reactions. Becky indicated that the bottom line is how you create action, and this is where the NJ PACT rules will help. Becky added that working with municipalities on the planning decisions will be key. Vanessa added that you have seen success by regulations like requiring low-income housing in development or incorporating green infrastructure. It's the cumulative impacts that we need to evaluate. It may not be the new development, but the hundreds of single-family homes that may be the issue. Shino asked Melissa about how NYC can start thinking about the cumulative impact of development projects? Melissa indicated that the only opportunity for this to be reviewed is during zoning reviews where dry vs. wet weather flow modeling is looked at. NYC's stormwater and sewer operations team can look at drainage, but this is slow going and often not ready when there is an issue arising. NYCDEP is thinking about what they can do with flood data, the known vulnerable communities, and how to engage the Planning Department on these concerns. Becky added that without looking at cumulative impacts, things are slipping through the cracks.

Brett Branco shared he believes that the watershed tool and others like it really need sustained program funding after completion to allow for training and application of the tool. Shino asked if NJDEP has funding in place for this. Vanessa clarified that funding is not available through the existing grant with NJDEP, however the state did create a Resource Center to sustain funding. This will enable the new tool to be added as part of a suite of tools being offered by the center and will continue to provide training.

Becky added that the team worked closely with the Resource Center to provide grant funding through various programs and work to promote these tools. Specifically, to ensure that the tools are available and there is a general agreement that they are useful. Brett Branco added that the tool's effectiveness is also critical. Becky agreed and shared that if multiple organizations keep using and promoting the use of these tools, then there is the onus to expand funding and keep improving the tool.

Shino asked how do we communicate risk, what agencies are trying to accomplish, and setting the right expectations when planning and communicating to EJ communities? Becky answered that the need to engage EJ communities and that we need to ensure that our efforts are meeting their needs. There is no one answer, but it's a combination of things that we are trying to do in being thoughtful when meetings are held, the messages we are trying to make, and using the right language. Vanessa added that climate change is a public health issue, not just water quality and habitat, and in this way, we get a larger public to respond. When issues are about public health rather than a future problem for water quality, engaging local communities is critical. Becky agreed and added that it is important to understand what the community cares more about and make sure to focus on it. Melissa shared that we have a lot of people in the Mayor's office to work on re-envisioning our outreach in disadvantaged communities, nothing to report just yet, but agencies do need to do better with these large resiliency efforts. Mix messaging can be confusing, and we really need to get communications right. Hildegaard Link commented that there are frameworks available to help agencies in participatory modeling. As scientists, we take things as a given – cleaner air, water quality, etc. – but low-income housing residents likely do not see that or see it as a major concern. People are angry and sometimes they need to vent before they get to a place to respond to your question, and that's something that we may need to consider. When you ask a question that doesn't make sense to the group, they often answer or ask a question that makes sense to them.

### **3. NYSDEC Advanced Notice of Proposed Rule Making (ANPRM) - Saline Water Reclassification and Water Quality Standards Updates**

Jason Fagel shared that NYSDEC is holding a data gathering and public outreach exercise to inform future classification and water quality standard rule makings. NYSDEC wants to know how you are using these saline waters, how many people are entering the waters, how often, and what type of recreation. They are interested in any data that is available. There will be two public meetings, one on August 31<sup>st</sup> at 6pm via Webex and a second in person meeting on September 29<sup>th</sup> at 2pm. Jason noted that you do not need to register in advance to attend the online meeting, though it is encouraged. Information is available online here: <https://www.dec.ny.gov/chemical/125879.html> along with an email address where you can send questions and data. This was released on July 27th with a 90-day data solicitation period to close on October 25th. Shino Tanikawa noted that the virtual meeting in August might be poorly attended due to the end of August when people are still on vacation. Shino asked if the agency would consider having a second virtual meeting. Jason noted that there is nothing that prohibits NYSDEC from hosting a 3rd meeting and will bring it back to the team for consideration.

### **4. American Infrastructure Investment and Jobs Act Update**



Rob Pirani provided an update on the American Infrastructure Investment and Jobs Act (a.k.a, Bipartisan Infrastructure Bill or BIL) funding for the National Estuary Programs. Rob thanked Lingard Knutson and the rest of the EPA team who have finalized and shared EPA's guidance with the National Estuary Programs. Rob shared that staff have drafted a first year workplan that was distributed to the Management Committee at their last meeting and are working to update this workplan to submit for approval in September during the joint Management and Policy Committees meeting. Rob noted that the match has been waived for FY 22 and FY 23. HEP is aiming to submit the final workplan to EPA in October where we will anticipate working on advancing grants.

Rob outlined the framework which cuts across HEP's Action Agenda, Administration Priorities/Congressional Intent, and the Program's capacity/added value. Two key actions for Water Quality, B-2 Green Infrastructure and E-3 Climate Adaptation, are clear choices that meet the intended framework and Rob provided a brief overview of possible projects to support in year one and considerations for year two. Specifically, seeking to work with City of Newark/Newark DIG and possibly a second community to help advance green infrastructure work by local partners in the first year, followed by an RfP in the second year for organizations across the estuary. We see a real need to help build capacity for local communities and we'll be working on an RfP to help support climate resiliency efforts connected to water quality (like what was shared earlier). HEP is also considering, for year two or future years, pathogen and dissolved oxygen monitoring in a shared waterbody. This would look to help advance the states' efforts in shared standards. We are also considering advancing floatable controls like the trash wheel or something else in a designated urban waters site.

Phil DeGaetano noted that given the funding and incentive for green infrastructure in other streams of funding made available through BIL and asked whether HEP's funds would be better used elsewhere? Rob appreciated the comment and noted that HEP is really trying to address those gaps in green infrastructure where we can help engage residents in participating in existing programs and how we can incorporate workforce training. Hildegaard Link expressed concern on green infrastructure initiatives given that stormwater management should often happen upstream from at-risk neighborhoods (often affluent and highly engaged) and evidence where green infrastructure installations lead to green gentrification. She shared a [toolkit](#) and [article](#) that builds on her comment. Shino indicated that this is an important comment that we need to jump into much deeper than we have the time for today. Rob thanked Hildegaard for her comment and added that in terms of HEP's work, we are leaning heavily on the priorities being advanced by community-based organizations interested in seeing this work go forward. Hildegaard expressed the importance of ecosystem services valuation modeling. There is abundant scholarship and modeling that connects water quality to property value and tax revenues. This may be problematic from an EJ perspective, but it is a beginning way to parse the importance of environmental restoration as part of BIL. Brett Branco shared that NOAA has a NOFO out that also addresses the community capacity issue as part of BIL.

**Action:** If members have other thoughts or concerns regarding the BIL workplan proposal, please reach out to Rosana or Rob.



## 5. Proposal for “Hope Spot” for our Estuary

Judith Weis shared Hope Spots, a program by Sylvia Earle, through Mission Blue to designate special places identified as critical to the health of the ocean that gives hope. The program looks for abundance or diversity of species, populations or rare or threatened species, a site with potential to reverse damage from negative human impacts, etc. Usually, the program chooses pristine places as designated HOPE spots, but in 2022 Shinnecock Bay in eastern Long Island was approved for their restoration efforts of hard clams and reduction of HABs.

Judith asked the Work Group, what about the Harbor Estuary as a HOPE spot? Judith shared that she is working on an application for the Harbor Estuary and provided an overview of the significant changes the estuary has had in the last 50 years. She noted waterways are the cleanest they’ve been in the last 100 years, CSOs are being reduced, less fish disease is seen, most of the estuarine waters are swimmable most of the time, sediment contaminants reduced, green infrastructure has advanced, biota has increase, more diversity of fish and benthic organisms, birds are increasing in numbers and diversity, and dolphins and whales are back! Garbage dumps have become parks – i.e., Meadowlands, Fresh Kills – and public access has increased. We’re a clear Hope Spot given the changes.

Judith is working on an application for the Hope Spot and is asking for assistance. Anyone interested in aiding with the application, please reach out to Judith directly at [jweis@rutgers.edu](mailto:jweis@rutgers.edu). There are a few questions she could really use the help on. Shino Tanikawa asked if there is a deadline and what do we get out of being designated as a HOPE spot? Judith indicated that there is no deadline, but the benefit is publicity. Phil DeGaetano thanked Judith and thought this was a fantastic idea.

**Action:** Anyone interested in aiding with the application, please reach out to Judith directly at [jweis@rutgers.edu](mailto:jweis@rutgers.edu).

## 6. Partner Updates

Tim Ebersberger shared that the Bureau of NJPDES Stormwater Permitting and Water Quality Management issued a draft Tier A Municipal Separate Storm Sewer System or MS4 Master General Permit last Thursday the 28th. We will have a 45 day public comment period for the proposed permit renewal and there will be a public hearing on September 20 from 9am to 12pm. The Bureau also issued a new draft Industrial General Permit which is called the Wood Waste Recycling and Leaf Composting General Permit or the WRC permit. This permit will be required for both public and private entities that engage in wood waste recycling and leaf composting activities. That permit was issued on the 26th of July and has a 30 day comment period. The WRC new general permit will replace our R7 wood recycler's general permit and has broader eligibility requirements as well as updated BMPs and sampling requirements. If anyone is interested in seeing a draft of either one of those permits please feel free to send Tim an email and he can send you a PDF of those. Email is [Timothy.Ebersberger@dep.nj.gov](mailto:Timothy.Ebersberger@dep.nj.gov).