NY/NJ HARBOR & ESTUARY PROGRAM

Water Quality Work Group Meeting

June 3, 2019

Location: Hudson River Foundation

Minutes

Attendees: Greg Alber, Mick DeGraeve, Charlie Dujardin (NJHDG), Pinar Balci, Keith Mahoney (NYCDEP), Lisa Congiu, Marco Alebus (NJDEP), Brett Branco (Brooklyn College), Maria Colon (NYCDOHMH), Evelyn Powers (IEC), Jim Lodge (HRF), Rob Pirani, Rosana Da Silva, Isabelle Stinnette (HEP), Wayne Jackson, Brent Gaylord (EPA), Shino Tanikawa (NYC SWIM)

By Phone: Rob Buchanan (NYCWTA), Jason Fagel (NYSDEC), Biswarup (Roop) Guha (NJDEP), Amanda Levy (NYCDOHMH), Zachary Smith (NYSDEC), Chrissy Remein (Riverkeeper), and Phil DeGaetano

Next Meeting: Thursday, September 5th at 10:30 AM

1) Welcome, Introductions and Overview of Agenda

Brett Branco opened the meeting, welcomed participants, and reviewed the agenda.

2) Recreational Water Quality Criteria (WQ-A, B, C)

Wayne Jackson and Brent Gaylord presented on the Recreational Water Quality Criteria by providing an overview of the CWA 304a and the 2004 Beach Act Rule. The criteria uses enterococci in marine waters and *E.coli* in freshwaters. A qPCR rapid method and protocol was developed to provide immediate results (within 4-6 hours). An epidemiological study looked at marine and freshwater illness rates along with an expert panel review on the 2012 RWQC. The study looked at inland and coastal waters (did not address secondary contact or fishing). STV shows the spikes of pathogens, usually associated with a CSO discharge. The study supports the 2012 RWQC for *E.coli* and enterococci for designated use of primary contact recreation. EPA is considering the use of coliphage as an indicator organism where viruses account for swimming associated illnesses. EPA provided states with the option to choose from one of two standards based on either 36 or 32 illnesses per 1,000 primary contact recreators. Both the options are protective of primary contact recreation use of surface waters.

3) New Jersey's Anticipated Proposal for Recreational Criteria (WQ-A,B, C)

Roop Guha updated the group on the anticipated surface water quality standards revisions that include primary contact recreational criteria, freshwater ammonia criteria, and general surface water quality standards variance policies. These anticipated revisions were discussed at the stakeholder meeting held on May 21, 2019 (https://www.njdepcalendar.com/calendar/events/index.php?com=detail&eID=617). The group discussed the challenges associated with the two options proposed by EPA in the 2012 RWQC,

ambient water quality sampling challenges to assess against the STV, a new metric introduced in EPA's primary contact recreational criteria, and the rolling vs. static means. The state continues to seek feedback from EPA and the public.

4) Pathogens Discussion (WQ-A,B, C)

Brett Branco opened the floor for questions and discussions of the two presentations.

EPA clarified the presentation was based on a national review and identified that either 30 day or 90 day is still supportive of protecting public health. Studies showed exceeding 90 days would not be protective of the public. The 30-day geomean is more protective of public health but also encourages the agencies to make better decisions as to the use of the waterbody. A discussion of the qPCR method was held with questions regarding the margin of error to deal with dead cells. Brent Gaylord will regroup with NJDEP regarding the inconsistencies with qPCR results. The two levels of 32 or 36 cfu per 1,000 was identified to be more protective of health and still be quantifiable. There are states in the US that have adopted the 32 value.

Marco Alebus asked how agencies can protect the designated use when CSOs and wet weather flows influence the waterbody. Wayne Jackson suggested looking at a wet weather driven designated use and implement criteria based on limited use. The LTCPs being developed should be a driver into identifying goals for the waterbodies to identify the designated uses, corresponding bacteria criteria, and is being protective of public health. The designated uses and criteria adopted by Indianapolis may be a good example to review. With the anticipated LTCPs, demonstrative or presumptions should be able to drive future reductions and enable agencies to look at criteria that are more reflective of the what the appropriate designated use should be. This is especially important for the enclosed waterbodies that fluctuate often. NYSDEC's proposed rulemaking amendment to reclassify Upper/Lower New York Bay includes the use of enterococcus for marine waters and e.coli for recreational waters.

The group agreed that there are many questions that need to be explored and see the group as an avenue to have these discussions. It is understood that information from the LTCPs will be a driver to development of bacterial standards and criteria in the NY/NJ harbor. Documenting these discussions, the questions to be discussed, and holding thematic meetings will be helpful to both states and EPA as a means to improve dialogues. Improving the coordination between the agencies and EPA is extremely helpful to layout the foundation needed to make progress with those officials who make the final decisions on the standards. HEP will continue to ensure discussions on criteria and standards are folded into work group meeting agendas for thematic conversations.

Action:

(1) Wayne Jackson will share documents related to the NPDES implementation, criteria updates, and additional epidemiological studies.

(2) EPA is working on development of a secondary contact recreational criteria and will publish the criteria for public comments soon. Brent and Wayne may present to this group in the future.

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5) Harbor-wide Water Quality Report (WQ-D-1)

Charlie Dujardin provided an overview of the initial analysis of water quality data. The map identifies the 10 regional waterbodies, separated by New York waterbodies, Shared waterbodies, and New Jersey waterbodies. All data stations were lumped to calculated average conditions for simplification purposes. Data was analyzed by season (June 1-September 30). GLEC can expand the 2011 report plots to provide a longer term trend analysis. Overall, the group suggested error bars or whisker plots would be important for the individual waterbody fact sheets. Charlie indicated that the number of samples from year to year were similar and that the text will clarify this along with the number of stations. Roop Guha indicated concern with the analysis proposed in lumping data together which is inconsistent with how the state conducts their ambient WQ analysis. The analysis can also highlight a couple of stations that are improving or showing problematic areas as supporting information to the averages to tell a story of water quality improvements.

Dissolved Oxygen: Concerns were raised for lumping stations that could be distortive of what is happening in the Harbor such as in the Hackensack. Marco Alebus and Keith Mahoney recommended using >4.8 and >2.3 rather than >5 to be comparable to EPA's criteria. Data assessed were only grab samples. A comparison analysis will be conducted for the continuous stations. Interpolated maps would be more indicative to DO and showing both surface and bottom.

Bacteria: Enterococci value should be assessed at 35 cfu and 130 cfu based on EPA's 2012 RWQC. If data is plotted with STV, would it change the geomean? Isabelle Stinnette suggested taking the geomean of each station and average them together which was done in the SOE as an alternative to evaluating each station separately (labor intensive).

Total Nitrogen: A reference point is needed. As this is waterbody dependent, this can be difficult (same problem with chlorophyll-a). A threshold is important to help the public understand tables and graphs. Roop Guha suggested using a range as a guide. Marco Alebus suggested showing the trend or not showing nitrogen as it is only one trigger of algal blooms.

Action:

(1) All comments to be sent to Rosana by June 14, 2019.

(2) Marco to share USGS water quality report as an example comparable document for the report.

6) Tracking Enclosed and Confined Waterways

Isabelle Stinnette outlined the restoration work group's efforts on identifying the poorly flushed areas where we have had some impact on whether it is through the LTCP, sewer separations, green infrastructure, or excavation efforts. Isabelle is in the process of narrowing down the list of waterbodies from 56 identified to a reasonable number to track and collect information. Pinar Balci and Keith Mahoney

indicated that NYCDEP has monthly and quarterly reports along with LTCP fact sheets that could be used to support some of the waterbodies. Marco Al-Ebus suggest also the DNR reports could also be used.

Action:

(1) Isabelle to share waterbody list with NYCDEP and NJDEP to identify which waterbodies have available information.

7) Work Group Draft Bylaws Review

Brett Branco shared the draft bylaws of the group for review. The draft bylaws is a means to recommit to efforts of the work group, provide structure, and also help guide efforts in bringing in new memberships and organizing future chairs.

Action:

(1) All comments to be sent to Rosana by June 30, 2019.

8) Updates

- Marco Alebus announced NJDEP has finalized efforts to reduce total Nitrogen and Carbon (CBOD) in the Hackensack River. Effluent limitations for ammonia, CBOD5 and dissolved oxygen (DO) for Bergen County Utilities Authority (BCUA) is in its final stages.
- Evelyn Powers announced to the group that a subcommittee of IEC's Shared Waterbodies group and the Water Quality Work Group is being formed to focus on continuous monitoring. This subcommittee will focus on addressing gaps identified in the Environmental Monitoring Plan and how improve continuous monitoring efforts with current practitioners. A meeting will be held later this year. Those interested in participating should notify Rosana or Evelyn.
- Rosana Da Silva announced the approval of the environmental monitoring plan. The plan consists of three tools: interactive map, storymap, and monitoring recommendations report. All tools are available at https://www.hudsonriver.org/article/environmental-monitoring-plan