

## NY-NJ HEP Water Quality Workgroup Meeting Notes

Date: 6/20/2017

Time: 10:30 am –2:30 pm

Attendees: Phil DeGaetano (NYSDEC), Jason Fagel (NYSDEC), Greg Alber (PVSC/NJHDG), Mick DeGraeve (GLEC/NJHDG), Pinar Balci (NYCDEP), Keith Mahoney (NYCDEP), Allen Deur (NYCDEP), Rick Winfield (EPA), Rosella O'Connor (EPA), Brent Gaylord (EPA), Josh Kogan (EPA), Stan Stephansen (EPA), Evelyn Powers (IEC), Rob Pirani (HEP), Isabelle Stinnette (HEP), Ariane Giudicelli (HEP), Dan Van Abs (Rutgers, phone), Sean Dixon (Riverkeeper), Michele Langa (NY/NJ Baykeeper, phone), Rob Buchanan (NYCWTA), Marco Al-Ebus (NJDEP), Susan Rosenwinkel (NJDEP), Roop Guha (NJDEP), Michael Hope (Greely & Hansen/PVSC), Bianca Hernandez (NYCDOHMH), Vanessa De Ferrari (NYCDOHMH), Amanda Levy (NYCDOHMH), Noreen Gallagher (NYCDOHMH), Jim Ammerman (LISS).

### 1. Welcome, Introductions and Overview of the Agenda

- A reminder for all those planning to attend to please RSVP as we have limited space and need an accurate headcount for lunch orders.

### 2. Long-Term Control Plans and CSOs in NJ

- Presentation by Susan Rosenwinkel, NJ DEP:
  - While there are many CSO communities across the US, the vast majority are in the Northeast, with 210 in NJ.
  - The CSO permits were issued July 1<sup>st</sup> 2015. Because of the unique situation in NJ with the different ownership of the systems, cooperation between permittees was encouraged.
  - A CSO page on the NJDEP site was created as part of the permit requirements which includes a link to an interactive CSO map. The outfall Discharge Monitoring Report (DMR) data is accessible through this tool (although the data is currently limited to solids/floatables).
  - There are also public notification sites with real-time sensors which display actively discharging CSOs (red dots)
  - Permit requirements include:
    - Submitting quarterly progress reports and monthly DMRs;
    - Public participation process;
    - Completion of a system characterization report (which will lead into an alternatives evaluation);
    - Evaluation of 7 control alternatives
  - Green infrastructure is being promoted by the department

- The final LTCP is due June 1 2020
  - There is currently insufficient information to determine waterbody recovery times or required reductions
- Presentation by Michael Hope, Greely & Hansen:
    - PVSC has 48 municipalities, 8 of which are in the CSO area. Three of the municipalities are pumped to PVSC rather than going through the interceptor. A portion of North Bergen goes to PVSC while another portion goes to the Woodcliff plant.
    - The capital investment in the LTCP projects is very significant. Because of the hydraulic connections, NJDEP encouraged the submission of one LTCP through a collaborative effort by allowing a bit more time to complete all of the requirements. As part of this collaborative effort, there is a supplemental CSO team which includes representatives from the communities for the outreach portion of the permit.
    - Meetings are held monthly with each permittee and quarterly with the CSO group. The supplemental CSO team also meets quarterly.
    - Each municipality hired their own consultant as they are required to develop their own specific alternatives. When evaluating alternatives, regional approaches may make sense so they are also looking into cost-sharing options. It is too premature to say how the various alternatives might work out. It is important to keep in mind that the interceptor only has so much capacity.
    - PVSC does not own any of the outfalls but owns the 22-mile interceptor and some of the regulators. Other regulators are owned by the permittees.
    - Currently, the exact CSO volumes are unknown as PVSC is still in the process of model validation. All models were combined together on the same platform.
    - Current progress includes:
      - Completion of a CSO notification system
      - Approval of several QAPPs by NJDEP, including the pathogens modeling QAPP
      - Actively conducting monitoring
      - Nearing completion of the hydrodynamic model
      - Finishing up calibration for the H&H model
      - Ongoing quarterly conference calls with NYCDEP and data sharing
    - Components of the water quality monitoring include:
      - Routine, intensive and characterization sampling
      - Routine sampling includes source and baseline monitoring and is pre-scheduled. The program started in March 2016. The deepest streams were sampled at two depths. A MEG reviewed the sampling locations and recommended more lateral sampling. Routine sampling is complete.
      - Intensive sampling targets  $\geq 0.5$  inches of rain for 3 events. Because of capacity and safety considerations, 18 wet-weather events were required to obtain the necessary number of samples. Intensive sampling is now complete.

- Characterization events include stormwater and CSO sampling. Stormwater sampling is almost complete while CSO sampling will hopefully be completed by August.
- Monitoring data will be available through NJDEP by filing an OPRA request

### 3. NYC MS4 Permit Update

- Presentation by Pinar Balci:
  - 60% of the city is served by CSOs and 40% by the MS4.
  - The MS4 permit was issued in August 2015 and the city will submit a Stormwater Management Program (SWMP) in August 2018. Annual reporting on the SWMP implementation is required.
  - The permit is a city-wide permit and the local law includes two major components relating to DEP's authority to enforce and inspect, while the state (DEC) administers the permit. MS4 legislation was recently signed by the mayor.
  - NYC Parks and DOT own some stormwater outfalls but MTA is not covered by the permit
  - Rulemaking is occurring this summer for illicit discharge detection and elimination (IDDE).
  - Public education and outreach are ongoing with a public stormwater advisory group, the Trash Free NYC waters campaign and the planning of MS4 signage in Coney Island Creek as well as creation of an MS4 exhibit at the Newtown Creek visitor's center.
  - Mapping is also ongoing with delineations of sub-catchments in the MS4s and field verification. Once all areas are delineated modeling the contributions of each drainage area will be much more straightforward.
  - Various public meetings have occurred and each one has been focused on different provisions of the permit
  - Sentinel monitoring locations for the IDDE program need to be refined. The IDDE issue is challenging in some areas such as Coney Island Creek.
  - One of the newest provisions includes the construction requirements which are going to change. There will be a post-construction BMP on-site management requirement to reduce TSS by 80%. DEP is looking into an e-permitting process for building permit owners. The 1 acre soil disturbance threshold was too large for city lots (significantly larger than what Philadelphia uses) and a study was conducted to determine the proper threshold. Recommendations will be released this fall (recommendations will vary by borough).
  - The pollution prevention provision will impact all agencies across the city. Each facility has to be assessed.
  - For the monitoring and assessment provision, the relationship between land use and a suite of pollutants will be investigated. Standard parameters will be sampled for and analyzed but additional parameters such as heavy metals may be added if the land use

is industrial for example. Data collection will begin once DEC approves the sampling plan. This sampling effort will be separate from the Harbor Survey program.

#### 4. LIS Water Quality Monitoring & Modeling:

- Presentation by Jim Ammerman:
  - Nearly every type of harmful algal bloom (HAB) can be found in LIS. There are 370K septic systems on Long Island which is an ongoing issue.
  - LISS produced a new CCMP in 2015. The water quality focus is hypoxia and nitrogen loading as well as water clarity.
  - Water quality monitoring programs go back to the late 80s and have produced large historical datasets. The embayment monitoring program is just getting started while the buoy network has new sensors. The embayment program is a unified effort with Save the Sound and a dozen communities are participating in this (this is modeled on the Buzzards Bay effort). Some of the monitoring has been funded by LISS and a small group of foundations has also contributed.
  - The 2000 nitrogen TMDL was met last year with a 60% reduction. Despite the decrease in N originating from treatment plants, hypoxia (defined as  $< 3$  mg/L) continues to be a major issue in western LIS. The extent of hypoxia in August 2016 was approximately 200 mi<sup>2</sup>, which pales in comparison to the issues in the Gulf of Mexico but it is still significant.
  - There may be legacy nutrients in the sediments and ongoing projects are looking at sediment nutrient fluxes.
  - Climate change may reverse improvements by increasing stratifications in the sound.
  - There are roughly 2,000 acres of eelgrass, with dramatic declines over the years. A survey was completed in 2012 and another is being conducted this summer. Eelgrass needs shallow, clear water to survive and thrive. Recognition software is used to identify the eelgrass.
  - The LISS is hoping to begin a new generation of modeling, in discussions with their STAC. Some key elements are missing for model calibration, including additional data in the embayment areas. Ideally, multiple open-source models could be used, but specifics still need to be determined. There is a potential opportunity to develop a system-wide tool to include the Harbor in addition to LIS.

#### 5. Assessment Tool Demo

- Roop Guha began developing a tool in 2015 using R to share how assessment units (AUs) are assessed for the NJ integrated report and 303(d) lists and which data are used. The tool is still in development but users will be able to look at the designated uses of a waterbody and see if they there is attainment for a particular AU. Users will also be able to look at specific parameters on

an interactive map for a selected range of dates, in addition to other features. A video tutorial will be developed to help explain all of the functionalities of the tool.

*Roop is looking for input on any additional information that might be useful for this tool.*

6. Next steps, topics for future meetings and items for the group to think about: *Please forward any thoughts or ideas on these topics to Ariane*

- Suggestions for future meetings include:
  - Joint water quality report
  - How different communities (such as Albany and Hoboken) handle CSO notifications
  - A citizen science update from the CAC
  - An MS4 update from NJDEP
  - A CARP II project plan update
  - Water quality advisories for NYC beaches/waterways
  
- Please let Ariane know your thoughts about possible membership limitations and/or creation of by-laws for the work group. While we want to be inclusive and transparent, we have limited meeting space and want to ensure these meetings are focused and helpful in advancing HEP's priorities. As a first step, please refrain from forwarding meeting invitations without first discussing with Ariane. Based on comments, Ariane and Phil may propose having by-laws, similar to the ones adopted by HEP's Restoration Work Group.