1. Welcome, Introductions and Overview of the Agenda

   - Phil DeGaetano has agreed to take over as chair of the workgroup. He will be voted in by the Management Committee. There is a possibility of having a NJ co-chair sometime in the near future but for the time being Phil will serve as the sole chair.

   - Bridget McKenna was not able to make it today – the group will hear from the NJHDG on LTCP progress at the next meeting. The focus today will therefore be on NYC’s LTCPs.

2. Long-Term Control Plans in NYC

   - Presentation by Keith Mahoney, NYC DEP:
     - Keith gave an overview on progress with the various LTCPs. Eight have been submitted to NYSDEC with 4 still in progress. The citywide plan is currently on track to be submitted in December 2018 but may be delayed for a year.
     - A number of baseline CSO projects were committed as part of the plans (total of $4.2 billion), of which most have been completed. The majority of the projects were end of pipe treatment, with some being focused on green infrastructure upstream to infiltrate or detain stormwater.
     - The focus has been on planning for improving water quality in the tributaries as these improvements would also benefit open waters of the Estuary. But looking back, prioritizing TMDL development may have been beneficial in some areas.
     - The modeling focuses on bacteria, not nutrients (CSOs are not a significant contributor of nutrients). DO is also focused on to a lesser extent. NJHDG is currently updating their model and NYC may also do this.
     - Some localized areas do not meet WQS even if the general CSO-shed is in compliance. It is harder to meet standards in the winter because of the slower bacterial die-off rates,
but the seasonal disinfection period is May 1 - October 1 (which covers the recreational season). Year-round disinfection may not be feasible.

- **DO** is assessed through modeling and by collecting grab samples and continuous monitoring using sondes. Sampling is conducted for a number of months leading up to an LTCP and targeted post-storm event monitoring is also conducted. Harbor Survey data is also reviewed.

- **Plan-specific updates include:**
  - Data collection is ongoing in the Gowanus. There has been significant improvement with the flushing tunnel being online and the pump station upgrade. The LTCP is driven by the Superfund with total costs around $900M.
  - Dredging is underway in Flushing Bay. Construction costs are estimated at $670M.
  - Refinement of the Alley Creek project includes proposed chlorination for disinfection.
  - Hutchinson River is impacted by upstream sources and stormwater. The city is looking into the possibility of a disinfection conduit along with chlorination and de-chlorination.
  - CSO tunnels for Newtown Creek are likely.
  - While most plans incorporate a certain amount of GI, the Harlem River plan does not.

- **UV disinfection** is not being considered due to costs. Chlorination followed by de-chlorination is the way that toxic concerns for aquatic life are being addressed. CAC members in attendance noted that chlorination is the least preferred alternative from their perspective.

## 3. Proposal for NY-NJ Harbor & Estuary Water Quality Assessment

- **Presentation by Rick Winfield:**
  - While there are well-established, long-term monitoring programs in our area that give us an overall picture of conditions, data is lacking for decision-making in some areas and with regards to certain parameters. Data for nearshore areas is lacking, as is continuous DO monitoring.
  - There have been improvements in pathogens, but exceedances in some tributaries and the Albany Pool area for example remain, as demonstrated by Riverkeeper and NYC Harbor Survey data.
  - The last UAA for this area was completed over 30 years ago – there is a need to review this.
  - Climate change will have effects on the system and must be accounted for moving forward in order to properly communicate the benefits and outcomes of any projects.
The states should discuss and come to agreement on common design conditions and ideally a unified modeling framework. Coordination between the states is absolutely necessary and EPA should be pulled in early on.

4. Discussion on Path Forward for Shared Waters

The group discussed possibilities for advancing this work, including:

- Reviewing and identifying means of making data available in a useful way, building on the existing STORET system. Brett Branco’s work in Jamaica Bay could be a model for the rest of the estuary. The work done for sharing information in the Albany Pool might also be useful.
- The proposed Joint Harbor—wide Water Quality Report (Action Agenda D-1) is a means for advancing this.
- The work should incorporate the use of predictive models for shared waters. PVSC is working on this.
- Health Departments should be invited to join the WQWG and this work specifically.
- A subcommittee could be convened to help work on this effort.

5. Impact Evaluation of Projected DO Deficits in the NY-NJ Harbor Estuary

- Presentation by Great Lakes Environmental Center included:
  - John Waldman: An overview of the marine resources of the Harbor and sensitive species
  - Robin Miller: A review of the Harbor modelling work that was completed for the HEP TMDL process from the mid-1990s—the mid 2000s
  - Tyler Linton: A brief overview of the EPA marine DO criteria and derivation process, and a summary of GLEC’s Harbor-specific criteria development work using a modification of the Recalculation Procedure.
  - Mick DeGraeve: A presentation of four lines of evidence suggesting a path forward to evaluate the prospects for developing site-specific DO criteria for select portions of the Harbor; conclusions, recommendations and a path forward.

- Discussions centered on the conclusions of the draft report:
  - The continuous exposure assumption for low DO in tidally affected marine tributaries may not be representative of actual exposure conditions.
  - The marine life in the Hackensack River is not continuously (if ever) exposed to DO concentrations that are expected to be lethal.
  - The marine life in the Hackensack River may, or may not, be continuously exposed to DO concentrations that could affect, larval survival and recruitment and growth.
Dr. Weis indicated her concern that the report did not address sub-lethal effects and said that she would provide a list of studies that should have been evaluated.

USEPA and NJDEP representatives also raised concern regarding the conclusions and recommendations.

Phil DeGaetano indicated that the draft report will be distributed for review in early April.