Newtown Creek Community Advisory Group (CAG) Meeting
Thursday, February 6, 2014
6:30 – 8:30 PM
McCarren Play Center
776 Lorimer Street, Brooklyn, New York, NY

37 Attendees (see attendee list in Appendix)

Introductions
Ryan Kuonen, CAG Co-Chair, welcomed attendees and reviewed the agenda:

1. Brief CAG business: the CAG members ratified Willis Elkins as a new member of the steering committee.
2. Four presentations by New York City Department of Environmental Protection (NYC DEP) to provide an introduction to activities that NYC DEP is undergoing associated with the remediation and restoration of Newtown Creek. To view the presentations, click on the presentation titles below.
3. Question and Answer period. NYC DEP also received questions from attendees after each presentation.

Meeting Summary
To view the presentation, click on the presentation titles below. Presentations are also available on the Resources page of the CAG website. The notes below do not repeat the content of the presentation slides. These notes summarize additional information provided by NYC DEP staff during their presentations.

Angela Licata, Deputy Commissioner, introduced NYC DEP staff and explained that each presenter would take a few questions after their presentation. Other comments from Angela Licata:

- More than half of the city has combined sewer systems, where stormwater and sanitary flow mix during certain rain events. Overflows occur when there is two times the dry weather capacity at plants.
- As the CAG knows, it is a very expensive proposition to reduce and mitigate the combined sewers.
- On average, NYC's system provides one million gallons of drinking water every day and treats three billion gallons every day; these efforts have a 10-year capital budget of $12.4 billion.
- For the average household, water and sewer rates are just under $1,000 per year. We believe these rates are competitive and affordable. These rates have more than doubled since 2000.
- We want to invest in the system and ensure that the quality of drinking water improves, that infrastructure at plants is upgraded, and we want to spend money on making additional water quality improvements. We want to select the most cost effective, efficient projects that will have the greatest public benefit.

Presentation 1: City's Role in Newtown Creek Superfund Site Study – Eileen Mahoney, Director, Hazardous Materials Assessment and Superfund Planning and Analysis

- As the CAG knows, the Superfund cleanup process is very long. We are in the early stages, which is why this is our first visit to the CAG to discuss our role in the Superfund cleanup. In the presentations that follow, we would like to give the CAG information about Superfund and other programs that impact Newtown Creek.
- Along with five other potentially responsible parties (PRPs), NYC DEP signed a consent order with EPA – the six PRPs will participate fully in the site investigation and will also pay for it (Slide 3).
- All six PRPs are fully invested in the process, including a commitment to help with site investigations and studies. The City has paid for 25% thus far ($25M; city paid $6M as its share) (Slide 4).
- Regarding combined sewer overflow (CSO) outfalls and storm drains as part of the study, we need to understand which pipes should be sampled for contaminants. Carrying this out is very complicated and very dangerous work. We bring our crew and NYC DEP sets up a safety area. When the CSOs are flowing, the water moves very fast (Photo, slide 5).
- In Phase 2 of the remedial investigation, CSO sampling will take place. It is a very taxing process. We go out in advance of a predicted rainstorm. When it starts to rain and water flows, the team starts taking samples. You will see crews doing this sampling work during Phase 2. (Slide 6)
- Our consultants are with Louis Berger Group: Three of the Louis Berger team were present: Ed Garvey, Chitra Prabhu, and Jeff Frederick.
- The maps on slides 7-9 show some of the Phase I sampling results. The maps show sampling locations and the various colors show levels of contamination. Black stars are CSO outfalls. The investigation is intended to see where contamination is and try to figure out where it is coming from.
- The first map shows total polycyclic aromatic hydrocarbon (TPAH) levels in surface sediment. TPAHs are common at Superfund sites; they can come from oil spills and industrial uses. The second map shows results for copper in surface sediment, which is also a very common contaminant at Superfund sites. The third map shows polychlorinated biphenyl (PCB) contamination in surface sediment.
- NYC DEP will share this data with anyone who wants it. The team looks at the data to see if it makes sense. If they find high concentrations of contaminants, they then try to figure out why these high concentrations are occurring. More data will be gathered in Phase 2 so the site and contaminant levels can be better understood.
- Phase 2 sampling will start in May 2014. The cost of this phase is projected to be $30M on top of the $25M already spent on Phase 1. Slide 10 provides more information on the Phase 2 sampling plan.

Presentation 1: Questions and Answers
Questions/comments from attendees are in *italics;* responses from NYC DEP follow the questions/comments in non-italics.

- *What are the criteria for deciding which CSO outfalls to sample?* We look at the big ones because they have the greatest volume. But, we also look at smaller ones because we may be more likely to see results there. EPA approves the sampling proposals. We take the whole water sample, separate it into water and sediment, and then analyze for the full slate of chemicals being looked at.
- *Is the sampling only for chemicals, or will it also include bacteriologicals?* Yes, this sampling is only for chemicals. The City is under two different orders: Chemicals are regulated under Superfund. Bacteriologicals are regulated under the Clean Water Act (CWA). The City does do a regularly scheduled water sampling process that includes bacteriologicals. If you want this data, please ask.

Presentation 2: NYC Green Infrastructure Program, Newtown Creek – Margot Walker, Director, Capital Planning and Green Infrastructure Partnerships

- Through the Green Infrastructure Program, NYC DEP is installing pervious, planted, landscaped areas to capture water before it goes into the sewers. We want to capture runoff before it gets into the combined sewer system.
- The map on slide 3 shows the combined sewer tributary area for Newtown Creek. When it rains, runoff into the creek can come from these areas. We take an area-wide approach. We are trying to capture as much runoff from streets and sidewalks as we can, designing block by block. Additionally, we are focusing on areas where we have the biggest water quality challenges.
- Right of Way Bioswales (slides 4 and 5). These have both an inlet and outlet; beneath the plantings are a soil layer and a broken stone layer. We have built 200 around the City and have plans for thousands. We worked with NYC Department of Transportation (NYC DOT) and NYC Department of Parks and Recreation to come up with a standard design. With a standardized process, we don't have to design each one separately. We can do a block-by-block survey, and wherever we can install a bioswale, we will.
- Stormwater Green Streets (slide 6). These structures collect a larger amount of runoff than a bioswale. Will build them as part of the right of way program.
- Slide 7 shows areas of build-out for right of way program. English Kills and Maspeth Creek tributary areas are further along in design. Construction in these areas will start this summer. Dutch Kills and East Branch tributary design will start later. We are investing substantial amounts of money for design. Eventually you will see lots of tiny dots on this map. We will come back to CAG meetings with a finalized map to show exact locations of these green infrastructure projects.
- Currently we are doing soil testing to make sure the areas are permeable. Slide 8 shows the construction schedule. We are focusing on parts of city that contribute most to overflow.
- We have a grant program for private property owners for all combined sewer areas, including combined areas of Williamsburg/Greenpoint. We will pay for

design and construction to do green infrastructure projects on your property. The property owners will have to maintain it for 20 years. If you know people who would be willing, please encourage them to contact us. We look to people who are connected to the community to spread the word about this opportunity.

- We are working with the Department of Education and The Trust for Public Land on schoolyard retrofits – these are "green infrastructure playgrounds." NYC DEP contributes to the green/stormwater portion; The Trust for Public Land privately fundraises for the rest of the cost.

Presentation 2: Questions and Answers

Questions/comments from attendees are in *italics;* responses from NYC DEP follow the questions/comments in non-italics.

- *Will NYC DEP be notifying people of where these green infrastructure projects will be? Businesses in particular will want to ensure that the installations don't block loading zones or are located behind a loading zone, so that a truck might back into it.* Yes. We have many criteria for where we can and cannot locate them. We do construction notification 30 days in advance or more. *Can you work with EWVIDCO so that they can give businesses additional advance warning?* Yes, we can discuss a way to coordinate that.
- *Is there a maintenance program associated with the green infrastructure program?* Yes. Our partnership with the Department of Parks and Recreation includes dedicated maintenance crews for the green infrastructure installations. Installations on private property are maintained by the property owners.
- *Are you using any particular plants for bioremediation purposes? Are you tracking efficiencies associated with particular plants?* No. We are not focusing on bioremediation. We have to consider potential public health hazards associated with bioaccumulation. However, we will start measuring performance and tracking data to better understand the entire ecological system.
- *How far from Newtown Creek will you be installing these?* Because this work falls under the CWA umbrella, we are only looking at combined sewer areas.
- *How many will you be installing in the drainage area of Newtown Creek?* Each tributary area will have hundreds. We carry out a lot of steps to determine siting.
- *Are the bioswales sealed? Or do they infiltrate?* No, they are not sealed; yes, they infiltrate. *How do you keep water from entering basements?* We have to be eight feet minimum from the property lines and we always do geotechnical investigations to ensure they will function as designed before they are constructed. Where there is high ground water we wouldn't be able to build a bioswale.
- Additional comments:
    - We think these installations will trap the petroleum products as they run off the street. Microbes in soil layer will break down the petroleum products. We will be testing the sediment as it collects.
    - There is a demonstration area in Bushwick along Grove Avenue. We will be issuing a post-construction environmental report this summer, to be

submitted to the New York State Department of Environmental Conservation (DEC) state agency and the public in August.

Presentation 3: NYC CSO Flow Monitoring Project, Newtown Creek – Anthony Maracic, Director, Capital Planning and Asset Management

- Slide 4 shows an explanation/schematic of a regulator. NYC DEP is putting different amounts of instrumentation in each of the demonstration regulators due to various different types of outfalls (size, presence of tide gates, etc.).
- We have also installed a weir camera to take a video of the storm event (slide 6), which is moved from site to site.
- Metering the flow is complicated; the data must be assessed for quality. We ask: Can we see when the overflow occurred? Can we see the duration of the overflow? Can we determine the quantity?
- NYC DEP is also conducting a CSO Long Term Control Plan (LTCP) process. The goal is to determine the future highest attainable use for waterbodies. The LTCP process is required by EPA under CWA.

Presentation 3: Questions and Answers

Questions/comments from attendees are in *italics;* responses from NYC DEP follow the questions/comments in non-italics.

- *How will you determine the highest attainable use?* We will be looking at a suite of alternatives for CSO reduction. For example, what if we had no CSOs; what if we have 50% fewer CSOs? When we do that, we will see what water quality improvements might result from a certain amount of reduction in CSOs. If the benefits are promising, we will look at what technologies would get us there, how much they cost, how practical they are, etc. NYC will have 10 LTCPs; the LTCP for this area is one of the last. There will also be a citywide LTCP. We will consider how people are using the water and what activities they are doing.
- *What happens if the regulators fail?* If there is a problem with the regulators, an alarm goes off and a crew goes to check it. An example of a problem could be a restriction in the flow, which is removed by the crew.
- *What sort of public notification process will you have for CSO events?* Now, when it rains, 45 minutes later we have data that might be helpful. We are doing a lot of data processing now. In the future, we would consider expanding the monitoring beyond the pilot phase but it's no way near a "real time" notification system right now. Not all regulators are built equally. Modeling is a good tool for us because it will help us with the LTCPs. The modeling allows us to test what it would look like if we were to put in a regulator. Another key element is incorporating green infrastructure installations. We will extrapolate the benefits from green infrastructure projects and plug it into modeling on the LTCPs; then we will see what types of gray infrastructure solutions might be needed.
- *Can you discuss nitrogen loading and how these efforts might reduce it?* In Jamaica Bay we have addressed this by upgrading the wastewater treatment plant; we cut nitrogen loading by 50%. Reducing nitrogen takes a lot of capital dollars.

There is a lot of nitrogen in wastewater, and a lot that runs overland through separate storm sewers. We are looking carefully at that as part of the municipal separate storm sewer system (MS4) permitting program. NY Department of Environmental Conservation (NYDEC) just issued a draft permit and the comment period is open until March 7. Will take a lot of money to make kinds of improvements we want to see.

- *Dissolved oxygen is a problem that is detrimental ecosystem wide; it is an escalating trend with pockets floating upstream. Where is the incentive to address that?* Dissolved oxygen levels in City waters have been improving, but because the waterways are not natural, it is difficult for them to keep up dissolved oxygen levels.

Presentation 4: Restoration Ecology, Newtown Creek – John McLaughlin, Director, Office of Ecological Services

- The Office of Ecological Services at NYC DEP views Newtown Creek in its ecological context. Our mission is to promote ecological integrity of NYC ecosystems.
- The NY/NJ harbor in the 1800s used to have large tidal wetlands. We have lost about 85% of NYC's tidal wetlands. We have lost about 99% of fresh water wetlands. The largest intact system is Jamaica Bay, but this is relative – 1,200 acres of the original 16,000 remain
- Newtown Creek has zero tidal wetlands, down from an estimated 1,200 acres historically. This means that the capacity of wetland systems to remove nitrogen and phosphorus no longer exists. Newtown Creek is now a canal with channelized, straight edges. We must view it in this context – natural processes are extremely limited and are no longer occurring at the same rate and function. In terms of morphology, Newtown Creek has six 90-degree bends – which is completely un-natural and man-made. The watershed used to have vegetation and protective buffers that are no longer there and have been replaced with impervious surfaces – these buffers would have helped attenuate runoff to the creek.
- Due to the change in tidal prism (the tilt of the creek bed), water can sit in the back of the creek for a long time. The hydrologic cycle has changed and this can lead to poor water quality.
- We are looking at potential options for ecological improvements to Newtown Creek, such as living shorelines, terraced bulkheads, and selective filling to create tidal wetlands and increase tidal flushing. Filling would raise the bottom of the creek so that it functions better and increase the flushing time (water turnover rate) within the creek. Terraced bulkheads rather than flat bulkheads could be planted and would provide more habitat for marine organisms to attach. We cannot recreate the ecological system of the 1800s, so we have to look to science, research, and technology to get some of the ecological function and processes back to the creek in a sustainable manner.

Presentation 4: Questions and Answers

Questions/comments from attendees are in *italics;* responses from NYC DEP follow the questions/comments in non-italics.

- *There is a lot of talk of building things on the water, such as Bloomberg's plan for building islands, barges that block light. How does this affect ecological function?* Smaller things do not tend to have a significant impact.
- C*an the terraced bulkhead strategy be applied everywhere?* This is a federal channel; all work would need permitting.
- *Once established, does the filling require maintenance?* The creek bed would need pampering in first two years. A goose exclusion fence might be necessary in the beginning.
- *What about floating wetlands?* If we can create real, functional wetlands in sediment, this is what we would prefer to do. We could use floating wetlands in limited locations.
- *When do we decide to do these things?* The community decides. These solutions are just concepts. We will work with you to develop the right solutions for Newtown Creek. It is up to you to make these happen in the future. Permitting issues, landowner issues, etc., will all need to be tackled, but you have to start with the vision.
- *Given that we know there is wildlife in and around the creek, is NYC DEP planning on studies to determine how persistent contaminants of concern might be accumulating?* Yes. This is part of the Superfund study. The ecological risk assessment includes an analysis of risks on these types of organisms. NYC DEP, along with rest of the PRPs, will be going through the standard process including the risk assessments, which will address human health and ecological health.

Angela Licata thanked the audience for their attention and their questions. She thanked the team for bringing its expertise to evaluate the problems and the situation at Newtown Creek. NYC DEP hopes to continue to bring information to the CAG.

Additional Information and Next Steps

1. The CAG is always open to new members. Politicians, politicians' staff, and potentially responsible parties cannot be members but they are welcome to attend meetings.
2. The next CAG meeting will be in the spring. Announcements about meetings are posted on the website.
3. If you would like to hear about future meetings and stay in touch with the CAG, sign up to receive updates through the website: www.newtowncreekcag.wordpress.com.

APPENDIX
List of Meeting Attendees

Alejandro Daviloi, Columbia University
Alice Baker, resident
Carolyn Petschler, Newtown Creek Group
Christine Holowacz, Greenpoint Waterfront Association for Parks and Planning (GWAPP), Newtown Creek Monitoring Committee
Debra Mesloh, LIC Partnership
Devin McDougall, Sive, Paget, and Reisel
Emily Mijatovic, representative for Assemblyman Lentol
James Curcuru, GWAPP
Jan Mun, Newtown Creek Alliance
Jason Sinopoli, Newtown Creek Alliance
Jean Tanler, OBOC
Katie Hart-Brennan, Newtown Creek Group
Laura Hofmann, Barge Park Pals
Laura Senkevitch, The Fortune Society
Leah Archibald, EWVIDCO
Lillian Ball, Waterwash Projects
Lisa Bloodgood, representative for Councilman Levin
Louis Kleinman, Metropolitan Waterfront Alliance
Mae Emerick, Parsons
Marc Laraia, law firm
Michael Leete, resident
Mike Schade, Center for Health, Environment & Justice (CHEJ), CAG Co-Chair
Nermin Kajosi, MPH major
Paul Kenline
Paul Pullo, Newtown Creek Monitoring Committee
Phillip Musegaas, Riverkeeper
Ramzy Makvilouf, Anchor
Ryan Kuonen, Community Board 1, CAG Co-Chair
Sarah Durand, LaGuardia Community College
Steve Lang, LaGuardia Community College
Tanya Bley, NBCP, North Brooklyn Boat Club
Tim White
Vanessa Ogle, BKLYNR
Vince DeCapio, Dewberry
Walker Holmes, Skeo Solutions
Wanda Ayala, USEPA
Will Elkins, North Brooklyn Boat Club and Newtown Creek Alliance