

Newtown Creek Community Advisory Group (CAG) Meeting

Wednesday, May 21, 2014

6:30 – 8:30 PM

LaGuardia Community College, Room E501

31-10 Thomson Avenue, Queens, New York, NY

38 Attendees (see attendee list in Appendix)

Introductions

Mike Schade, CAG Co-Chair, welcomed attendees and reviewed the agenda:

1. Introduction of representatives of elected official representatives and potentially responsible parties. The following representatives introduced themselves:
 - a. Staffers of Carolyn Maloney, Rick Levin, Joe Lentol, Julio Reynoso, and Jimmy Van Bramer.
 - b. Representatives from: Exxon Mobil, New York City Department of Environmental Protection (NYC DEP), and Newtown Creek Group.
2. Presentations by New York State Department of Health (NYS DOH). To view the presentations, click on the presentation titles below. NYS DOH received questions from meeting attendees after each presentation.
 - a. Final Newtown Creek Public Health Assessment – Chris Doroski.
 - b. New York State Fish Advisory Activities – Elizabeth Prohonic.
 - c. Healthy Choices About Eating Fish You Catch – Regina Keenan.
2. Final Question and Answer period. At the end of the meeting, NYS DOH offered attendees an opportunity to ask additional questions. All question/answers below are summaries – they are not intended to serve as a transcript of the meeting.

Background Information

NYS DOH and the Agency for Toxic Substances and Disease Registry (ATSDR) have announced the release of their final Newtown Creek Public Health Assessment. A public health assessment is required for every site in New York on the US Environmental Protection Agency National Priority List, also known as the federal Superfund list. In a public health assessment, the health agencies review information about hazardous substances at a site and evaluate whether exposure to those substances might cause harm to human health. The public health assessment recommends actions needed to prevent or reduce people's exposure to hazardous substances. A draft of this document was released for public review and comment in February 2012. This final version contains the public comments received and the responses from the health agencies. The public health assessment can be found at <http://www.health.ny.gov/environmental/investigations/newtown/index.htm> . Or, to obtain copies of any of these documents, either email the Department of Health at documentcomments@health.state.ny.us or call them at 518-402-7860. The conclusions of the Newtown Creek Public Health Assessment are described below.

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 NYS DOH staff during their presentations.

Presentation 1: Newtown Creek Public Health Assessment – Chris Doroski, Bureau of Environmental Exposure Investigation

- NYS DOH began the public health assessment in 2009; they completed it and released it to the public in February 2014.
- The assessment uses the National Priorities List definition of the Newtown Creek Superfund Site: Newtown Creek itself (from shore to shore, bulkhead to bulkhead) and its tributaries. The scope of the public health assessment is bound by what EPA considers to be “the site.” Upland areas would be covered under other programs, such as New York State Brownfield Cleanup Program, Voluntary Cleanup Program, or the Spills Program.
- The assessment evaluates exposure pathways to hazardous substances.
- NYS DOH used data available at the time that the assessment was being conducted. NYSDOH used bacteria data obtained from the NYC DEP specific to Newtown Creek. We compared the data to our NYS bathing beach code because the program we work in does not have standards specific for bacteria. In some cases, such as with bacteriological data, site-specific data were not available and NYS DOH used comparison data from other locations. In some cases, such as with bacteriological data, site-specific data were not available and NYS DOH used comparison data from other locations.
- Conclusions of the assessment:
 - Physical hazards and bacteriological hazards represent a concern.
 - Immersion activities should be minimized.
 - NYS DOH recommends that you observe caution. If you do go boating and contact sediment, wash off afterwards.
 - Based on makeup of the creek and accessibility, NYS DOH felt there would be minimal potential for contacting sediments directly.
 - It is known that many combined sewer overflow (CSO) outfalls discharge into Newtown Creek; this is where the bacteria come from.
 - Air-related recommendations will be forthcoming. NYS DOH will use EPA air monitoring data to evaluate hazards.
 - NYS DOH recommends that residents follow the fish advisory for the East River. It is advisory only; it is not promulgated by regulation and not enforceable.
- What’s next: EPA will submit remedial investigation data to NYS DOH; NYS DOH will evaluate the data and continue to develop health documents. NYS DOH will update the public health assessment as data becomes available.

Presentation 1: Questions and Answers

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

- *Because so much information was not available, can you talk more about the follow-up studies? Will those be available for public comment?* Yes, there are more pieces to the puzzle. We have a mandate to complete a document within a certain period of time. As we produce more health assessments, they will be available for public comment. We weigh all comments the same. Unfortunately we do not know yet when the next public health assessment will be conducted. Newtown Creek is a large water body (as compared to a Superfund site of a few acres) – the investigation takes time.
- *Are you missing fish samples from the creek?* Yes – we have an older data set from the East River, which we use for the fish advisory. Each year, DEC asks DOH which bodies of water we would like to see sampled. Newtown Creek and Gowanus Canal are always our top choices. I would like to see a Newtown Creek fish advisory so that we can see change as conditions improve.
- *Could regular boaters collect these fish samples for you? Could a responsible third party, with documented processes, collaborate with you to fill this data gap?* Great question. We have strict protocols and requirements for sampling and data collection. Laboratories have to have approvals through New York State programs and liability plays in. We rely on New York State Department of Environmental Conservation (NYS DEC) because they have the equipment and know the protocols.
 - NYS DEC collects fish in order to learn more about size, age, and population. Collections are also used for contaminant tissue samples. We know a lot about fish in the Hudson River because of the increased sampling conducted in that water body based on its status as a Superfund site. In order to monitor contamination levels in fish, we are looking for fish that have fat. We don't look only at one fish in one place; we look at trends shown by data collected on fish in multiple places. Collections take place in both Fall and Spring; the same locations are usually sampled seasonally, over and over. Fish will go where there is dissolved oxygen. In one area, the Mohawk Tribe is doing collections. In terms of sampling, NYS DEC considers its budget in order to see what/where/how much sampling the agency can conduct. Because Newtown Creek is a Superfund site, more sampling and studies will be conducted; therefore, in time, we will know more about fish populations.
 - Wanda Ayala, Community Involvement Coordinator with EPA, added: Phase II Work Plan Volume One, which lays out what sampling will be conducted in Phase II of the Remedial Investigation, has been approved and released. Subsequent volumes will address CSOs and fish.
- *Can you speak more about how EPA's data relates to your studies, specifically EPA's Phase I Remedial Investigation data?* The chemical data we receive will include sampling of the water column for the suite of contaminants for which EPA is testing at the site. We will evaluate that with toxicologists and they will give feedback based on levels and specific carcinogens. Phase I sampling was not

complete when we authored the document. Our draft was completed in early 2010; we then started the agency review process. Additional chemical information will come out in the public health assessment updates.

- *Why are mollusks not addressed in the advisory?* NYS DEC has responsibility for mollusks; in a lot of NYC waters it is illegal to take any shellfish other than crabs. NYS DEC has strong enforcement on this matter, and many shellfish beds are shut down. For mollusks, the warnings are regulatory and enforceable, not advice. Only in areas on Long Island where CSOs are not an issue is it okay to harvest shellfish, and even there they shut down the beds after rainstorms due to the potential for effects from CSO events.
 - *My advice would be to include this information in the advisory.* We cannot include it because it could be considered an encouragement. However, this is a great recommendation and we could talk about that. Many fishermen register using the NYS DEC regulation guide; this guide would include what is illegal to harvest. Our brochures focus on the fish advisories and information on DEC is very condensed.. We are in the process of editing the NYC brochure and this is a valuable comment. The brochure does include notes about eel and American shad.
- *People do fish, they do catch eels, and they are eating them.* We are aware of this and we have had multiple discussions on bettering outreach on fish advisories. We are trying to get the word out in many different ways and working with partners on this.
- *The fundamental flaw that I see is that people wade and swim here, yet it is never acknowledged. Swimming and jumping into the creek is happening, just not necessarily when regulatory officials are around.* Your concern is valid. We understand that people are out there swimming. They are swimming at their own risk. We are very aware of the presence of large bacteria colonies in the creek. People who swim are taking their health into their hands and exposing themselves to bacteriologicals. We cannot make generalizations about potential chemicals yet; our recommendation based on the information we had when we authored this public health assessment is that if you swim, you should take action to limit, minimize, or eradicate the exposure. This is due to the risk of exposure to bacteriologicals.
- *Why are the document not worded in a way that acknowledges swimming?* This is due to the lack of an official bathing beach.
- *Since 2009 when you began original study, there has been a sea change. There is a large colony of people living on boats. Creek users walk through sediment at the Morgan Avenue railroad bridge. This study does not offer much new information beyond New York City Department of Environmental Protection (NYC DEP) information that we are familiar with. Why is NYS DOH here instead of NYC DEP?* Our mandate when a site is listed to the NPL is to conduct a public health assessment. Our best data set was NYC DEP's information on bacteriologicals. As information becomes available, we will develop follow-up materials in more focused documents.

Introduction to Presentation 2: New York State Fish Advisory Activities – Elizabeth Prohonic

- It is important to frame what NYS DOH does with fish advisories across the state. Fish advisories are advice to limit consumption based on contaminants in fish. Though this started as a small program, investigations into contaminated sites and waterways have led to development of a large program of over 150 waterways across the state. We are trying to communicate hazards in a consistent, scientifically based manner that is protective of public health. We work closely with NYS DEC. They collect fish every year from various water bodies across the state in order to check for environmental contaminants. We have technical staff in Albany looking at trends in fish data and asking, are we seeing increases or decreases in the levels contaminants in the fish? We change our advice based on that data. We also work to communicate that information out to the public. We have realized that one size does not fit all in communities. In the beginning, we used a large booklet aimed at anglers. Recently, we are using a more regional approach to address water bodies. Newtown Creek is an area of potential concern; we are trying to incorporate relevant information into new materials. We have added Gowanus and Newtown Creek to our maps and now we want to pull these out and focus on them. What we would like to do tonight is have an opportunity to start thinking about how we can bring our fish advisory program into the community here. We find that working with partners to get information out is most effective. We have a small staff of people in our office. We have large mailing lists, and getting that information to places where community members can actually use it is the hard and important part. For instance, it is not the angler making the decision about eating the fish, it is the family that receives it. Who are the people? Who makes the choices in the family? How do we reach those people? We are trying to work more closely with communities and partners to get materials out. We haven't done that yet here at Newtown Creek – tonight, we would like to discuss opportunities to reach people, what is possible, what are the outreach options, and how we can communicate appropriately. We want to get information to people in a manner that they can use it. One model that has worked well is on the Hudson River (another Superfund site – 192 miles). Regina will discuss the Hudson River fish consumption advisory program.

Presentation 2: [Healthy Choices About Eating Fish You Catch](#) – Regina Keenan

- The Hudson River fish consumption advisory program is a 20-year effort that began in 2009. NYS DOH negotiated special resources for the program.
- Fish advisory is health advice based on chemicals in fish.
- Hudson River fish are one of the biggest fish contaminant data sets. We have to stretch state resources to do sampling in other places.
- One challenge we face in sharing this health advice is that in some communities, people believe that they will know if the fish is contaminated just by looking at it.
- NYC's fish advisory information can be confusing because some we have a lot of advice for some waters but some of the best NY state waters are on the ocean side

of Brooklyn. We advise that the entire other side of the city (upper bay, East River) not eat the fish – women and children.

- Polychlorinated biphenyls (PCBs) accumulate in the fatty portions of fish. Fish that do not have a lot of fat are typically safer to eat more often.
- If you fillet the fish and cook it so the fat drips off, you can reduce PCBs by 50%.
- In contrast, mercury is all throughout the fish. In order to avoid mercury consumption, you have to choose a different fish.
- We realize that crabbing is very popular, so this year we came out with a crab card. Ninety percent of the bad stuff moves into the water when you cook crab; therefore, we advise discarding the cooking juices.
- We realize that information from various agencies can be confusing so a number of agencies collaborated on striped bass. Striped bass fishing is culturally important, so we want people to have the best information available. (See slide 21, PCBs in Striped Bass)
- In addition to reaching anglers, we have to reach families because women and kids in particular should not be eating contaminated fish.
- As an example of outreach strategies: Rockland County has a strong environmental bent. We gave them a grant and they came up with own brochure. They decided they wanted more informational signs with pictures of the fish. In addition, AmeriCorps students talked to people directly to spread the word about fish advisories.
- We have found that simply approaching someone who is fishing and telling them about the advisory is not necessarily going to convince them. People fish to get away – not to have strangers talk to them. We believe that we get better results by attending community events to spread the word rather than targeting people while they are fishing. We also work with food banks. In these ways, people can hear the information from a source they already know and are more likely to trust.
- Signs: Posting signage is more complicated than you would think. There is no law requiring anyone to put up signs, including municipalities. We are constantly asking people to put up signs. We have seen private property owners resist putting up signs because fishing is illegal on their property and they fear that signs advertising advisories on eating fish will have the effect of unintentionally condoning the fishing.
- As we communicate the advice, we try to acknowledge the following:
 - Fish as a source of protein: People eating fish from New York waterways may have many issues besides eating the fish. In one survey of people who were fishing and eating the fish from the Hudson, over 50% of people surveyed were single, head-of household figures with incomes less than \$10,000.
 - Sharing information: there are grants available for outreach work related to fish advisories. Such a grant could be available for Newtown Creek.
 - Access to water is important: people want to be near the water, which creates a need to get the word out about contamination in fish.
 - Languages: We will translate into any language you learn is necessary.

- Culture: Fishing can be culturally sensitive; there are many different cultural drivers. We try to be respectful of that in our outreach work.
- Trust: Rather than the government being the one to tell people what to do and not to do, it is often good for community members and partners to do that. If the information comes from a trusted source, it is more likely to be heard.
- Resources for outreach work: the NY NJ Harbor and Estuary Program has small amounts of money for grants. EPA activity at Newtown Creek could take care of some fish advisory related work. The NY NJ Harbor Estuary Program may be able to fund signage, possibly the CAG could reach out to them to learn more about their program. The Hudson program collects short Hudson fish consumption surveys at events to get a picture of how much of the fish people in the Hudson they and their family eat. However, Harbor and Estuary Program and EPA needs a quality assurance plan or Quality Assurance Project Plan (QAPP) if they fund a consumption survey. A QAPP is a big commitment, so exploring other options for a consumption survey may be a good idea.

Presentation 2: Questions and Answers

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

- *Could there be better coordination between NYS DOH's recommendations related to exposure to contaminants in sediments and the fish advisories? Such as a sign that addresses both concerns?* Yes, part of the discussion is about not having four separate signs. We have seen examples of signs that are not effective (e.g., too wordy; or don't look cautionary enough). We conduct focus groups about the signs in order to see what is most effective. It is a great idea to combine the content on signs.
- *Does DOH have funding for signs at Newtown Creek?* No, we do not have money set aside. We would need to look for that. A couple of hundred aluminum signs typically cost around two thousand dollars. The NY NJ Harbor and Estuary Program allows for continuous grant proposals. If NYC DEP were to post signs, perhaps fish advisory information could be included on them – it would be a good question to pose.
- *There seems to be a disconnect here – NYS DOH is saying that people going into the water are doing so at their own risk, but they may not know that they are at risk.* The community members around Newtown Creek know the water body best, including who is accessing it and who is using it. Multiple organizations need to come to the table to come up with the appropriate sign and appropriate message. We will work with EPA to ensure that people are made aware of the fact that the creek is a Federal Superfund site and that there are precautions that people should take if they are recreating on the creek. EPA routinely posts this type of information at other Superfund sites.
- *Funds for signs could come from different places but we should keep in mind that the goal is to share information about a similar message.*

- *What about the selling of fish from New York State waterways?* The Food and Drug Administration (FDA) is supposed to be enforcing what fish is sold in the markets; however, their resources are limited. NYC Department of Health and Mental Hygiene health did a survey four or five years ago and found that Asian women ate more fish and had higher mercury levels. They made a brochure and collected fish from markets. Monitoring fish sold in markets is an issue. It is always a good idea for consumers to ask where the fish comes from. NYS DEC also regulates sport fish and the sale of those fish.
- *Restaurateurs are constantly being approached by people to sell their local fish.*
- *You mentioned that the Hudson River fish advisory program had a designated budget and that there is no budget outside of that for Newtown Creek to create and put up signs. Do you have a budget to do outreach? If we come up with ideas for outreach opportunities, for example, if there are local churches/communities where you would find good populations to spread the message, do you have a budget to do that?* For a sustained outreach effort, no. If it were a one-day event, we would probably do it. We can develop materials and help to sustain the communication. It is the sustained on-the-ground outreach that we don't have the resources for. Two thirds of the fish advisory staff is here in this room right now. Assistance could come from student interns, and any other creative ideas are worth considering.
- *If a local group got a grant and used it to hold a meeting, could you train someone to give the presentation?* Yes. We can also do graphics, images, etc.
- *Greenpoint Community Environmental Fund is still out there. The first round of funding is set but I understand there will be a second round. There may be stakeholders here who could apply for funding to do education and outreach around fish consumption on the creek.*
- *I appreciate the value of the outreach; this conversation needs to happen after we have a real assessment of fish in the creek based on Newtown Creek data. This is a good point. We need to monitor the data, as the advisories could change based on what we learn from sampling activities.*
- *I was surprised to read in the brochure that it is okay to eat 6 crabs. If sediments (where crabs live) are the exposure pathway of concern, this underscores need for a specific Newtown Creek advisory. Where the animal spends its time is very important. With crabs, you need to know what is in them before you can determine the risk associated with eating them. For instance, there is strict advice in New Jersey because of dioxin contamination. In many places on Hudson, if cooked properly, crab meat is quite clean. However, you need the data to make these decisions.*
- *What aren't you testing for, what should you be testing for?* In other parts of the state (e.g., great lakes), agencies are sampling for polybrominated diphenyl ethers (PBDEs) and furons. This is the first attempt to test fin fish for these chemicals. This may inform sampling activities elsewhere in the future. We have not been testing phthalates because testing for PCBs is such a huge endeavor. The list of contaminants being tested for is very long and it is an expensive process.

- *EPA could weigh in with specifics on this topic. EPA will be testing wildlife for contaminants in tissues. The fish component will be in the second volume of their remedial action plan. We will be asking EPA to come to a CAG meeting to give Phase I Remedial Investigation results and what they'll do in Phase II. This question should be posed then. Phthalates should be a concern here due to historical land uses.*
- *NYC DEP is conducting aeration work on the creek and will be installing more aerators soon. There is concern that some testing is suggesting that bacterial contaminants and pathogens are stirred up and getting into the air. Boaters and other creek users could be exposed to these bacterial contaminants and pathogens – what are the health hazards of this? Is NYS DOH going to be looking at this? We have talked to EPA about something similar. At this time we do not have a standard to compare to in order to determine the level of risk associated with exposure to bacteriologicals. Risk assessors must ask, “at what level will people experience adverse health effects?” To date, we have not seen any information regarding the aeration practice.*
- *A CAG member cited Comment 8 in the Public Health Assessment, regarding the aeration concern. The excerpted comment and response is: “Comment 8: A community member referenced a Queens Community College study that DOH should review. Response: DOH has not been able to confirm the specific study referenced in this comment. The study referenced by the community member might be, “Local Environmental Pollution Strongly Influences Culturable Bacterial Aerosols at an Urban Aquatic Superfund Site” (Elias M. Dueker et al., 2012). DOH reviewed this article and found it reiterated the concern about bacteriological contamination of the creek.”*
 - *We will not skirt around bacteriological contamination being in the creek. Our concern is your concern – bacteria are an issue. The only way to stop bacteriological contamination is to stop CSO discharges.*
 - *Biologicals are difficult because we don't know exactly what the level is where someone would get sick. I don't know what the alternative to aeration is if we want to get oxygen in the water.*
- *Will there be monitoring or testing associated with aeration? Is there some type of regulation that would cause aeration to be set back from the creek due to spray? Scientists are uncertain what to sample for when investigating biologicals. In agricultural communities, manure is spread everywhere; perhaps studies exist about worker safety and health associated with manure spreading? The risk assessment associated with the Superfund process may address this*
- *If we knew what was in the air and what had been aerosoled by these blowers, we could at least stop the progression of the project, which we think is ill advised.*
- *We could be seeing contaminants known to be trapped in the sediments aerosolized. When Elias Dukert (see question above about Dukert's study) was asked whether he thought nonbiological toxins would be released, he said he saw no reason why not. Simple study to do: is it in the air when system is on and not when it is off? EPA will conduct air sampling at boat level. They will also sample on land to gauge surroundings. There should be a control somewhere out farther*

in community. Your concern is one hundred percent valid and we will keep it in mind.

- *Will NYS DOH look at air samples around the aeration locations? We will look at air samples that EPA collects. I do not know if these will be around aerators; the EPA remedial project manager could better answer this question.*
- *EPA will do traditional air sampling over next year. They do not think it is within Superfund's scope to do air sampling for pathogens. No one seems willing to confirm if pathogens from sewage are getting into air column. NYC DEP has said specifically that they don't want to test because it is complex and has not been done before. The public does not think they are getting a satisfactory answer. The aeration is an expensive project (tens of millions of dollars). We can share studies with you so that you can learn more about it. Yes, please send the whole group of studies.*
- *As NYS DOH makes advisories on how people interact with the site, aeration presents a different issue. Boating is characterized as a limited exposure – you don't go out boating with intention to fall in. But you can't go boating and not breathe. The potential for a greater risk now exists with the aeration. The science is not there to allow us to evaluate yet.*
- *Because of aeration (and resulting increased oxygen levels), there may be more fish. Yes, this could drive the progress of a Newtown Creek-specific fish advisory.*
- *Three-part question: 1) Regarding sludge tank relocation/demolition and dredging the mouth of Newtown Creek recently: what we were breathing in at the time? Is there a connection between relocation of the sludge tank and Superfund remediation? 2) Regarding new development proposed on the waterway – will shadows on the creek compromise the remediation? 3) Is it possible to somehow encourage water flow by reconnecting the creek to the east river along Metropolitan Ave. by some sort of pipe? The EPA remedial project manager would be best equipped to address these questions. They have not yet completed the remedial investigation and are therefore not at a point of actually doing remediation work on Newtown Creek. Regarding the ecological impact of shadows – I am not sure what would regulate that. It is an excellent question but likely not under Superfund's purview.*
- *If memory serves, the first aerators that went in there was a failure. If more aerators will draw more fish and there is a failure could that lead to more fish kill? Fish are pretty mobile – if oxygen levels decrease, they will most likely leave the area. If the aerators fail, the oxygen levels likely will not diminish too suddenly.*

Additional Information and Next Steps

1. The fish advisory resource information will be posted on the CAG website along with the Power Point presentations and the meeting notes.
2. 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.

3. The CAG steering committee will meet soon about the fish advisory information and what steps the CAG might take to advance these efforts.
4. The next CAG meeting will be in the summer. Announcements about meetings are posted on the website.
5. 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

Abby Bentley, Louis Berger Group
Alice Baker, Newtown Creek Alliance
Andres Villa, Office of Council Member Jimmy Van Bramer
Audrey Van Gerechten, NYS DOH
Bess Long, Save Greenpoint
Chris Doorski, NYS DOH
Darren Lipman
Debra Mesloh, LIC Partnership
Devin McDougall, Sive, Paget, and Reisel
Dorothy Morehead, Newtown Creek Alliance, Community Board 2
Ed Babor, Office of Congresswoman Carolyn Maloney
Emily Mijatovic, Office of Assemblyman Joe Lentol
James Curcuru, GWAPP
Jan Mun, Newtown Creek Alliance
Jean Tanler, QBOC, MIBA
Justin Demming, NYS DOH
Kevin Thompson, Exxon Mobil
Lacey Tauber, Office of Council Member Antonio Reynoso
LaShaun Lesley, llesley and Associates
Laura Hofmann, Barge Park Pals
Lisa Bloodgood, Office of Councilman Rick Levin
Louis Kleinman, Metropolitan Waterfront Alliance
Lupe Todd, Newton Creek Group
Marc Laraia, Newtown Creek Group
Matt Gosline, Greenshore
Michael Hofmann, Barge Park Pals
Mike Johnson, Louis Berger Group
Mike Schade, Center for Health, Environment & Justice (CHEJ), CAG Co-Chair
Mitch Waxman, The disaffected
Phillip Musegaas, Riverkeeper
Sarah Durand, LaGuardia Community College
Sean Dixon, Riverkeeper
Stephen Fabian, EWVIDCO
Steve Lang, LaGuardia Community College
Tyquana Parsons, Newtown Creek Group
Walker Holmes, Skeo Solutions
Wanda Ayala, USEPA
Willis Elkins, North Brooklyn Boat Club and Newtown Creek Alliance