

Consolidated Q&As from Gowanus Canal CAG

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Coal Tar Contamination

- As a community that has been environmentally impacted by migration of coal tar from MGP sites for decades, we are very concerned about how these toxic, cancer-causing sites are being addressed. Most of the pollution in the Gowanus Canal has come from these MGP sites. Will EPA give this community assurances that migration of coal tars and other contaminants that are not being removed will not continue to cause harm to the community or re-contaminate the superfund remedy?**

EPA and DEC continue to work together to address coal tar wastes at the former MGP sites, with the objective of source control, including controlling the migration of these wastes and associated contaminants. While DEC is the enforcement lead for the MGP sites, in coordination with DEC, EPA recently developed an upland cleanup matrix that targets potentially mobile contamination on uplands near the canal to a depth of two feet below the bottom of the adjacent in-Canal cap. The end goal is for the coal tar wastes that remain to be treated at depth, such that they are not available for direct contact.

Coal tar wastes release contaminants to the groundwater; this is being evaluated and addressed by DEC. Also, coal tar wastes release vapors, which can enter buildings. Vapor mitigation is being incorporated into new buildings. All DEC remedial program sites, which include Brownfield Cleanup Program sites, are required to evaluate the potential for soil vapor intrusion. In addition, DEC is conducting a Gowanus Canal area wide vapor intrusion study.

Finally, the in-Canal remedy prevents the migration of coal tar wastes and associated contaminants into the Canal through in-situ stabilization of native sediments in select areas in the upper and mid-reaches of the Canal.

The answer to Question 1 can also be applied to the following two questions:

- Is the EPA planning to address the migration of coal tar at the Citizens site once construction begins? The Record of Decision (ROD) states that if there is an issue with the**

clean-up at Public Place, EPA would address it as a Superfund site (as was done with the Fulton site). EPA reserved the right to address the safety at and around the site if required. If the coal tar is likely to be pushed outside the metes and bounds of the DEC brownfield site, does that meet the criteria for EPA to take over as it did at the Fulton site?

- II. The CAG has requested in multiple resolutions for EPA to take over the site. Coal tar has already been detected as having migrated from the Fulton site to the other side of the canal. The coal tar from the Citizen's site has migrated to Lowe's/9th St. It is everywhere. Why is EPA not stepping in to protect its own superfund work and the neighborhood?

2. In light of National Grid's and DEC's concession that the coal tar is more pervasive and widespread than originally thought and that it has already been found to have migrated to the nearby community, will the EPA step in and take over the clean-up as this CAG has repeatedly requested?

It is EPA's expectation that DEC will retain the enforcement lead for the cleanup of the former MGPs. As was noted in the answer to Question 1, EPA has provided guidance on upland source control needed to protect the in-Canal remedy and possible remedial approaches.

3. Is EPA dealing with the risk of re-contamination from the MGP sites post cleanup? How? What steps will be taken to ensure that the MGP sites do not re-contaminate the canal as some plumes of 120 feet of coal tar will be left behind on the Citizen's and other sites? How will walls/barriers that do not reach down 150 feet protect the canal from such recontamination?

There is a concern that coal tar wastes may migrate horizontally into the Canal at or above the level of the in-Canal cap or migrate vertically through the remedy into the Canal.

The barrier walls should mitigate horizontal migration of coal tar waste because they extend to the depth of the remedy in the Canal (and significantly deeper).

For the vertical migration pathway, the in-Canal remedy prevents the migration of coal tar wastes and associated contaminants into the Canal through in-situ stabilization of native sediments in select areas in the upper and mid-reaches of the Canal.

Also, please see the response to Question 1.

4. Won't the pile driving on the soon to be developed sites disturb the remaining coal tar and push it into the surrounding sites and neighborhood? Will the weight of the buildings affect this?

As was noted at the Gowanus Town Hall, it is possible for piles to shift NAPL coal tar or even create conduits for moving coal tar. This is a subject of ongoing discussion with EPA, DEC, and the PRPs to assure that this can be done safely. It has been done successfully at other sites.

Coal tar that moves as a result of pile installation is not expected to affect the in-Canal remedy because the barrier walls installed along the former MGP sites will prevent the horizontal migration into the Canal and the in-Canal remedy will prevent the vertical migration of coal tar wastes and associated contaminants into the Canal through in-situ stabilization of native sediments in select areas in the upper and mid-reaches of the Canal.

- 5. Given that the Fulton site has not been addressed at all, what controls are in place to protect the canal from recontamination from this site?**

Response actions at the former Fulton MGP site have been implemented and are underway. Specifically, a barrier wall now extends from the head of the Canal to Union Street and, as part of the construction of the CSO retention tank at the head of the Canal, NYC is in the process of installing a slurry wall that is deeper than the barrier wall that will offer additional protection to migrating coal tar wastes.

Also, please see the response to Question 1.

- 6. Isn't it EPA's obligation to protect the community? What prevents the coal tar from moving outward? What is EPA's responsibility to address the migration of coal tar from the Fulton K superfund site and to surrounding buildings?**

As was noted in the answer to Question 1, EPA and DEC are working together to address coal tar wastes at the former MGP sites, with the objective of source control. The end goal is for the coal tar wastes that remain to be treated at depth, such that they are not available for direct contact.

Vapor Intrusion

- 7. What prevents the fumes from migrating through the vapor barriers when piles are driven through the barriers?**

The vapor barriers should be installed after the piles are driven and not be punctured by pile driving. Also, see the response to Question 4.

Air Monitoring

- 8. The Committee has been informed that the various development sites have ongoing air monitoring; How is the community being informed of releases of toxins?**

All DEC remedial sites are required to follow an approved CAMP during all ground intrusive work, which includes procedures for notifying DEC if there are any exceedances of the CAMP threshold guidance values. Should an incident occur at a DEC 7 remedial site that required immediate notification, DEC would work with the local emergency response departments.

- 9. Will there be funding for permanent air monitors on public streets and live monitoring going forward?**

No. Upon completion of the remediation, CAMP monitoring will no longer be required.

- 10. Can there be phone alerts to the community when there is an outgas (something similar to severe weather alerts)?**

Should an incident occur at a DEC remedial site that required immediate notification, DEC would work with the local emergency response departments.

Clean Water Act

11. What are the EPA's water quality ARAR's (actual measures that must be met for the water quality) for the Gowanus Canal?

EPA and New York State have promulgated surface water standards which are enforceable standards for various surface water contaminants--EPA's water quality standards (40 CFR 131) and New York State surface water quality standards (6 NYCRR Part 703). DEC has the primary responsibility for implementing the Clean Water Act.

12. What is the objective for the level of clean water once the canal is cleaned?

Implementation of the remedy will improve the surface water quality of the Canal by controlling and substantially eliminating sheens and preventing contact of the surface water with the contaminated sediment.

13. The Gowanus Canal has to come up to Clean Water Act Standards. At what point will it be required to comply with Clean Water Standards? What are they? Is the State being permitted to use standards that are less than the EPA's Clean Water Standards? In 2012 EPA said all waters must be "contact recreation" but there is little chance based on CSO's that the Gowanus will meet that standard. The State downgraded the standards, Riverkeeper sued EPA for not forcing the state to implement the Clean Water Act standards. What is the status of the Riverkeeper action against EPA?

Implementation of the remedy will improve the surface water quality, the objective being the more stringent of EPA's water quality standards and New York State surface water quality standards.

Post-Remedy Issues

14. What is EPA's demand for responsible parties to maintain an operation and maintenance plan (OMP) for the Gowanus Canal Clean-up strategy? Who will ensure that the OMP is done going forward?

The PRPs will be responsible for performing the operation and maintenance (O&M) of the implemented remedy under EPA oversight, pursuant to an EPA administrative order.

15. Will EPA continue to check that the water quality remains good and that the cap is intact? Does EPA have an OMP Plan? Where is it?

An OMP will be developed. The PRPs will be responsible for performing the O&M of the implemented remedy consistent with that plan.

NRDA Process

- 16. In the spirit of collaboration, what is EPA doing to support the Trustees and ensure a thorough NRDA process, and to ensure that any damages settlement restoration occurs in and goes directly back to the Gowanus Canal and community.**

EPA has met with the Natural Resource Trustees and is cooperating in their efforts to recover damages and improve the canal.

Community Involvement

- 17. What is EPA doing to ensure that the CAG meets agency standards for community groups?**

With support from EPA's Conflict Prevention and Resolution Center, the Region has procured a neutral facilitator that has specialized experience in designing and facilitating community dialogues focused on diversity, inclusion, group dynamics, and conflict resolution. While we cannot mandate participation, it is our expectation that the CAG, with the support of the special facilitator, will put in place practices that are reflective of EPA's CAG Guidance.

- 18. The CAG Land Use Committee suggests that a simple application could be created that residents could put on their phones. The app could give instructions to residents as to what they should do in case of a dangerous outgas event. The availability of such an application would allow property owners to make their own decisions about monitoring their indoor air. Either the State or the City could create and maintain the application going forward.**

See responses to Questions 8-10 above. Additionally, DEC has created a dedicated Gowanus Canal webpage to its website. Residents should visit the website regularly for updates from DEC and NYSDOH on remediation in the area.

Former Citizens Manufactured Gas Plant & General Brownfields Questions

- 19. Under 375 3.3(b) above, is the Citizen's site even eligible as a Brownfield anymore?**

The Former Citizens Manufactured Gas Plant (Citizens) site was originally being addressed under a Consent Order between the New York State Department of Environmental Conservation (DEC) and National Grid. The site was never listed as a New York State Class 1 or 2 site, it is not listed on the National Priorities List, and the Order was not pursuant to Article 12 of the Navigation Law or New York State Environmental Conservation Law (ECL) Article 17, Title 10 (petroleum bulk storage). Under the Brownfield Law and pursuant to a court decision on this issue, the Citizens site is currently enrolled in the Brownfield Cleanup Program (BCP), as is explained in detail below.

A Brownfield site is statutorily defined as real property where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance adopted by DEC that requires remediation. A portion of the Citizens site, known as the Carroll Gardens/Public Place Former MGP site (C224012), was accepted into the BCP in February 2009. Another portion of the site was accepted into the BCP in 2019 (459 Smith Street, C224012B). National Grid is a party to both Brownfield Cleanup agreements. Prior to these sites being accepted into the BCP, DEC determined that the Citizens site met the statutory definition of a Brownfield site

and was eligible to enter the BCP. The remaining portion of the Citizens site (Parcel IV) is subject to a Consent Order wherein National Grid has committed to complete the necessary remediation.

20. Has there been a waiver of New York State’s constitutional requirement that “[e]ach person shall have a right to clean air and water, and a healthful environment[?]”

The BCP addresses the contamination at specific sites that are admitted to the program. DEC and the New York State Department of Health (NYSDOH) ensure the cleanup plans for each site are protective of human health and the environment, ensuring no reasonable possibility of unacceptable human or environmental exposure in the future. That, in combination with the safety measures in place during the remedial activity itself (e.g., wastewater handling plans and community air monitoring plans [CAMPs]), meet the requirements for each person in the area to have clean air and water and a healthful environment.

21. What is the EPA’s ARAR for cleanup of the upland sites and the canal?

EPA’s 2013 Record of Decision (ROD) requires control of upland sources of potential recontamination to the Canal. EPA did not establish ARARs in the ROD for the upland sources. In coordination with DEC, EPA recently developed an upland cleanup matrix that targets potentially mobile contamination on uplands near the Canal to a depth of two feet below the bottom of the adjacent in-Canal cap.

Regarding the upland sites, applicable state requirements can be found in the ECL and the DEC’s Brownfield and Remedial Program Regulations. Those requirements vary based on the applicable remedial program and the anticipated use at each site. For the Gowanus Canal site, because there are currently no federal or state promulgated standards for contaminant levels in sediments in New York, Remediation Goals¹ for sediments in the Canal were developed based on the results of the Human Health Risk Assessment and Baseline Ecological Risk Assessment conducted during EPA’s investigations.

22. Per DEC’s March 31, 2023, letter the depth of required removals at the site is -25NAVD88. How was this number determined and is this consistent across the entire Citizen’s site?

The extent of further Non-Aqueous Phased Liquid (NAPL) remediation by in-situ solidification/stabilization (ISS) or removal was determined in consultation with EPA and NYSDOH to ensure that remaining NAPL does not pose an environmental or human health threat to the Gowanus Canal remedy and isolates the remaining NAPL to prevent further contamination of the shallow groundwater at the various remedial sites. The final depth of treatment/removal of the remaining NAPL will be based on/protective of the elevation of the Gowanus in-Canal remedial cap.

23. Per DEC’s March 31, 2023, letter:

There is an understanding between the agencies that there may [be] areas along the bulkhead, gas tunnel, and Bond Lorraine Sewer where the methods listed in bullet one may not be appropriate, and the Stakeholders are to evaluate the remedial technologies provided by EPA’s technical consultant, Jacobs Engineering, or other appropriate technologies. Both agencies have agreed that there may be a need to allow a small amount of finite residual NAPL to remain in areas where it cannot be addressed due to obstructions or the potential to damage utilities.

Specifically, how much and what toxic materials will remain on the site?

Contamination at the Citizens site will remain at a depth lower than the in-Canal ISS isolation layer. This contamination will be monitored in perpetuity to ensure that all potential exposures remain addressed and human health and environment is protected.

- 24. How is this being addressed? Is the proposed solution to have the relevant parties, per DEC's March 31, 2023, letter, to: Design and install a soil vapor mitigation system including a SSDS and membrane vapor intrusion barrier, within the footprints of each planned buildings at the site.**

Yes, the final remedy for the Citizen's site will include the requirement that any structure built on the site will have a SSDS and membrane.

Design and install protective housing enclosures for the post-remediation continuous tar recovery operations. These enclosures should be designed to minimize exposure and nuisance to the public.

The final remedy for the Citizen's site will include the requirement that the coal tar recovery system is enclosed and that recovery operations are conducted in a manner to mitigate nuisance odors.

Hydrology

- 25. To the best of the Committee's knowledge, neither the DEC nor NYSDOH has ever performed a comprehensive hydrology and hydrographic study for this neighborhood as the Gowanus is in a FEMA flood zone A. At the DEC meeting on April 20, 2023, one of our members was informed by NYSDOH that such a study is always performed for any Brownfield/Superfund site. Thus, the Committee seeks information about the impact of underground water and its future impacts on the complex planned for the Citizens Gas/Public Place Site, as well as the impacts of construction of this complex as well as other planned complexes to the surrounding areas.**

Has (or will) a hydrology study been done to address these concerns? If so, when was it performed? Where is it now? If not, when will it be performed?

As part of remedial investigations that are performed at sites, although groundwater flow direction is typically determined, hydrology studies are not usually performed. Individual site remedial investigation reports may be found on DECInfo Locator <https://gisservices.dec.ny.gov/gis/dil/>

In addition to the individual site investigations, DEC is currently completing a Gowanus Canal areawide groundwater study to evaluate the current hydraulic conditions, including groundwater elevations and flow direction. This study is scheduled for completion in late 2024.

- 26. Which entity will perform such a study or has performed such a study? Absent a hydrology study, it would be impossible for any conclusion that it is actually safer to build on some areas rather than others at the Citizens site. With rising groundwater levels attributable to increased rainfall and/or rising sea levels, it appears highly likely that the volatile organic compounds at the site will not only shift, but will move upward and be released into the surrounding air.**

DEC does not agree that a hydrology study is warranted at the site. See also previous response to Question 27.

- 27. How will the agencies determine the amounts and types of NAPL (including TCEs) that will remain on site?**

DEC, in consultation with NYSDOH and EPA, has evaluated all environmental data collected from the Citizens site to ensure that the remaining NAPL does not pose a threat to human health or the

environment, and is protective of the Gowanus Canal remedy by isolating the remaining NAPL to prevent further contamination of the shallow groundwater. The final extent of the contamination left on-site will be determined during the remedial design. TCE is not considered to be a contaminant of concern at the Citizens site.

28. How will EPA and DEC monitor this in the long term?

An environmental easement will be placed on the site, requiring compliance with a DEC/NYSDOH-approved Site Management Plan (SMP). The SMP will include long-term monitoring and periodic reporting requirements to DEC and NYSDOH.

29. Does the March 31, 2023, letter represent a definitive decision made and approved by the EPA/DEC as to what the cleanup will look like at all four parcels that make up the Citizen's brownfield site?

DEC, in consultation with NYSDOH and EPA, continue to work with National Grid and its consultants to reach resolution on the additional remedial work required at the Citizens site to ensure that the remedy is protective of human health and the environment and does not jeopardize the Gowanus Canal remedy. The agencies will continue to keep the public informed.

30. In light of the extent of the pollution is DEC now requiring National Grid to remediate according to the original 2007 plan that included: the installation of a High Density, heavy plastic liner 2 feet below grade throughout the site as storm water management to prevent rainwater absorption, which could dislodge the deeper, remaining pockets of coal tar.

DEC is not requiring the installation of a high-density plastic liner 2 feet below grade. The proposed additional remediation noted in the 1.d.i response, above (e.g., ISS), will prevent infiltration of stormwater into the remaining NAPL by creating an isolation layer.

31. Does this echo the March 31, 2023, directives to:

Design and install a soil vapor mitigation system including a subslab depressurization system (SSDS) and membrane vapor intrusion barrier, within the footprints of each planned buildings at the site.

Design and install protective housing enclosures for the post-remediation continuous tar recovery operations. These enclosures should be designed to minimize exposure and nuisance to the public.

No, see the response to 1. The first item requires the installation of a SSDS and membrane at any building built on-site that will be occupied. The second requirement ensures that the recovery well system operation and maintenance does not create nuisance odors.

32. The installation of two water treatment systems to clean the rainwater from the site so it can be discharged back directly into the Gowanus Canal. Would this be the same as the directive from the March 31, 2023, letter to:

Capture and contain the groundwater plume to prevent further migration to the canal or off-site. This may include optimization/upgrade of the groundwater hydraulic relief system or installation of a new groundwater control and treatment system.

Any discharges from the groundwater collection/hydraulic relief system will require appropriate treatment prior to discharge.

- 33. “Install two 'wings' or wall extensions along 5th Street and Huntington Street to prevent coal tar from oozing out of the site onto nearby sites?” Is this the same as the March 31, 2023, directive to:**

Install a wing wall to the south at the eastern border of the site, to prevent off-site migration of tar not captured by the source control measures described above, in accordance with the site decision document. These walls may consist of steel sheets or ISS columns.

EPA has indicated that a wing wall is also required north at the eastern border of the site, as originally identified in the 50% remedial design. DEC is discussing this internally and will provide further clarification in a subsequent communication.

Yes, the remedial elements provided in the DEC March 31, 2023 letter to National Grid (<https://gowanuscag.org/wp-content/uploads/2025/09/NYSDEC-Letter-to-National-Grid-033123.pdf>) addresses the potential for coal tar to migrate off-site.

- 34. Have the relevant parties already provided an area-wide off-site investigation workplan as per DEC’s December 22, 2022, letter? When will that be shared?**

No, DEC has not received a workplan for the off-site investigation requested in the December 22, 2022, letter. DEC, under the State Superfund Program, is currently investigating Nevins Street between Fulton Parcels II and VI to better understand the extent of contamination in the public rights-of-way.

- 35. Has the Design Workplan for the Citizens site that was set forth in the March 31, 2023 letter (<https://gowanuscag.org/wp-content/uploads/2025/09/NYSDEC-Letter-to-National-Grid-033123.pdf>) been completed? When will that Design Workplan be shared? Will the community /committee /CAG have an opportunity to comment on it?**

No, a remedial optimization design workplan has not yet been prepared by National Grid. DEC, in consultation with NYSDOH and EPA, will review the plan once it is submitted by National Grid. Once the plan is acceptable to the agencies, it will be shared with the public.

- 36. When a site is cleaned up “to the extent practicable” and then developed, what are the obligations of the responsible party[ies] going forward, be it EPA, DEC, or the developer, when a site has not been fully remediated? Who would the responsible party be?**

National Grid, under Brownfield Cleanup Agreements and an Order on Consent with DEC is ultimately responsible for performing all required site management, maintaining all institutional and engineering controls in perpetuity.

Public Health

- 37. What health standards are there regarding the remaining toxins?**

The remaining coal tar will be at depths greater than 30 feet below ground surface (bgs). All potential exposure pathways to this contamination will be mitigated by the ISS that will isolate the areas above 30 feet bgs from the deeper contamination that will remain. The SSDS and membrane at any building built on-site that will be occupied will prevent the potential for vapor intrusion.

38. How can the community, both current and future, be assured that the toxins will not migrate and make a formerly “safer” space no longer safe?

As part of DEC’s remedial evaluation of the Citizens site, it looked at the effectiveness of various remedial elements in protecting human health and the environment in both the short-term and long-term. Further, the work DEC and EPA are seeking in the March 2023 letter (<https://gowanuscag.org/wp-content/uploads/2025/09/NYSDEC-Letter-to-National-Grid-033123.pdf>) will prevent migration from the Citizens site to the Gowanus Canal. In addition, under the SMP, National Grid will assess the effectiveness of the remedy in perpetuity. Should DEC determine that modifications to the remedy are needed to continue to protect human health and the environment, these modifications will be completed under a remedial system optimization.

Sewers and Combined Sewage Overflow (CSO)

39. EPA does not agree that pursuing such a moratorium is the right path to take for the Gowanus watershed, as discussed in more detail below.

With regard to your questions relating to instances where NYSDEC has primary enforcement authorization, we have discussed this inquiry with them. NYSDEC requirements regarding wastewater resource and recovery facilities (WRRF) flow management and potential moratoriums are provided in 6 NYCRR Part 750-2.9(c). At this time, the Owls Head and Red Hook WRRFs have not triggered provisions for a sewer moratorium. EPA has been advised that NYSDEC will continue to assess NYCDEP flow management efforts and reporting for compliance with these provisions, other applicable provisions, and their State Pollution Discharge Elimination System (SPDES) permits.

40. EPA made it clear at the outset of the Superfund program that a goal was to have no recontamination after the cleanup. Based on the failure of the City to build the CSO tanks, contamination will be going into the canal AFTER the cleanup. How will EPA conduct oversight to ensure that the City will RE-CLEAN the canal or will EPA be doing that?

The ROD states “In the event that the permanent measures are not implemented in a timely manner, interim controls, such as temporary solids capture and removal, [would] be implemented to mitigate sediment from the CSO discharges until the permanent measures have been implemented.” These controls were not feasible. The City will be required to perform maintenance dredging if CSO solids build up and exceed the PRGs. This is enforceable under the CSO remedial action Unilateral Administrative Order.

Sewer Overflow notifications

In addition, 6 NYCRR Part 750-2.7 contains requirements for incident reporting and notification. Overflows resulting in a discharge to waters require appropriate notification. NYSDEC will assess these events and the New York city Department of Environmental Protection's (NYCDEP's) response under Part 750, its SPDES permits, and any applicable open enforcement actions.

Addressing Sewer Backups

With regard to the referenced August 31, 2016 EPA Administrative Order issued to the City, it requires the City to take necessary steps to achieve reductions in Sewer Backups (SBUs) citywide. The City has focused on the portions of its sewer system with the highest SBU rates, which are in areas sewered outside the Gowanus Canal watershed. The City has performed proactive inspections of sewer segments within these portions of the City to establish appropriate future inspection and cleaning frequencies to minimize SBUs. Follow-up work has been performed, as needed. The City has developed protocols for ongoing work. Confirmed SBUs have decreased annually between Fiscal Years 2018 and 2022 in the targeted portions of the City. Not counting confirmed SBUs resulting from extreme weather, the City has reported that confirmed SBU s have decreased from 950 in Fiscal Year 2018 to 579 in Fiscal Year 2022.

Annually, the City prepares a "State of the Sewers" report. The report for the City's Fiscal Year 2022 can be found at: <https://www.nyc.gov/assets/dep/downloads/pdf/water/wastewater/state-of-the-sewers-2022.pdf>. This report documents that SBUs decreased citywide each year between Fiscal Years 2017 and 2021. However, citywide SBUs increased in Fiscal Year 2022. In the report, the City attributes the increase to extreme weather brought by Hurricanes Henri and Ida.

Gowanus Canal Long-Term-Control Plan

As you know, the Long-Term Control Plan (LTCP) for the Gowanus watershed was issued in 2015, two years after EPA's Record of Decision (ROD) for the Gowanus Canal Superfund site. As such, the LTCP acknowledges and includes the elements of the ROD that were included by EPA to protect the long-term performance of selected remedy. These elements primarily include two retention tanks to be constructed at the outfalls to the two largest combined sewer overflows (CSOs). These CSO retention tanks, when constructed will both reduce the introduction of CSO solids on top of the by-then remediated canal and, along with other improvements required by the LTCP, improve water quality in the Gowanus Canal consistent with the Clean Water Act.

Future development and Sewer Interference

EPA's ROD also states that future activities that fall under New York City's purview, including development by other parties that requires approval by the City, cannot compromise the protectiveness of the Gowanus Canal remedy. Among other things, the ROD specifically states:

Current and future high density residential redevelopment along the banks of the canal and within the sewershed shall adhere to New York City rules for sewer connections (Chapter 31 of Title 15 of the Rules of the City of New York) and shall be consistent with current New York city Department of Environmental Protection (NYCDEP) criteria and guidelines to ensure that hazardous substances and solids from additional sewage loads do not compromise the effectiveness of the permanent [combined sewage overflow (CSO)] control measures by exceeding their design capacity. For example, redevelopment projects will need to take mitigation measures to prevent or offset additional sewer loadings. Separated stormwater outfalls will also require engineering controls to ensure that hazardous substances and solids are not discharged to the canal.

Combined Sewage Overflow Retention Tanks

The City is currently complying with EPA's requirements to construct the two combined sewer overflow (CSO) retention tanks pursuant the schedule mandated by EPA. The construction of these tanks is paramount to the cleanup of the Canal and addressing CSOs. Furthermore, EPA is requiring

monitoring of CSOs, by sampling of CSO outfalls during storm events, to measure any long-term changes in CSO discharges and assess whether changes in the watershed are consistent with EPA's requirements, as stated above. The City is also complying with this monitoring requirement.

With regard to the statement that an "[EPA] official confirmed at a 2022 town hall meeting that the 12 million gallon tanks were ... not designed to address additive CSO effluents from tens of thousands of new residents added to the sewershed by the 2021 Upzoning," this is a misapprehension of EPA's comments. EPA previously addressed this misapprehension at the July 26, 2022, Gowanus Canal Community Advisory Group (CAG) meeting. As was stated during the July meeting, EPA's comments at the town hall addressed the basis of EPA's CSO remedy that was selected in the ROD, and were not a comment about the size and scope of the City's rezoning.

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act, EPA will continue to require the City to analyze and assess the amount of CSO the tanks will be receiving. EPA previously stated this both in its August 2021 "Comments on Gowanus Neighborhood Rezoning Draft Environmental Impact Statement" and during the July 2022 CAG meeting. Had EPA determined that the current CSO retention tank designs were incapable of handling the additional CSO load from the rezoning, EPA would have required the City to redesign the tanks. To the contrary, the best way to address any increased CSO load is to construct the tanks consistent with EPA's timeline, which the City publicly committed to meeting.

41. The CSO tanks will not be ready for 10-15 years – how will EPA address the issue of CSO's if there are no tanks?

See response to Question 42.

42. Currently, construction of both CSO tanks is scheduled for 2029 or about 6 years from now. Is there any way EPA can force the City to not issue CSOs for new buildings that do not have storm sewer connections?

Please refer to the attached August 22, 2023 letter (<https://gowanuscag.org/wp-content/uploads/2025/09/USEPA-Letter-to-VOG-082223.pdf>) from Regional Administrator Lisa Garcia to Linda LaViolette and Jack Riccobono, Co-Chairs, Outreach Committee, Voice of Gowanus

Turning Basins

43. Was Whole Foods footprint remediated when it was built?

The Whole Foods property is in NYSDEC's Brownfield Cleanup Program and was remediated in approximately 2013. EPA was satisfied with the remedy at that time. Please refer to the NYSDEC Brownfield Cleanup Program website for further details.

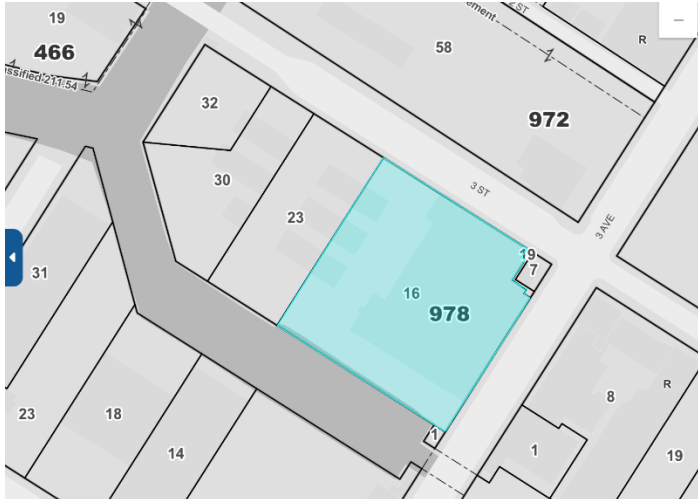
Follow up question:

Although the answer to this question was "yes", the information below and your answer to # 3 below is not reassuring (see below, question 3 is included for your reference). It appears that the area of the parking lot that was owned by The Crushers was not entered under the Brownfields Program. Attached is the easement document the NYSDEC placed on the property

following the BCP work. It covers the lots 16-1 on block 978, *but not lots 23, 30, or 32. There is no evidence that Lots 23,30,32 were ever in the DEC Brownfield Cleanup Program.*

As far as our committee members recall, the cleanup work on Lots 1-16 was for the removal of septic tanks on the site. Was testing done for other contaminants? If so: Which ones? What were the results? Was the site remediated for such contaminants?

Below, New York City Tax Map of the block:



Thus, our question regarding recontamination stands.

EPA reviewed the information at the time and had no issue with those properties. Not every parcel has sufficient contamination to qualify for the brownfields program. Please seek additional information from DEC.

44. Can the new bulkhead be perforated?

Perforations have been made solely to extend existing outfalls. Otherwise, these bulkheads are typically required to be sealed without perforations as a backup cleanup measure in case there was undetected residual subsurface contamination present.

45. How much water are we losing?

Encroachment into the Canal along the newly installed bulkhead support system along the Whole Foods properties varies from one foot to 10 feet. This encroachment was unavoidable due to the condition of the existing sheet pile bulkhead that was installed at a significant incline. EPA is still considering potential approaches with respect to this encroachment.

Follow up question:

In terms of how much water we are losing in the turning basin, that question remains outstanding. We cannot know if we are getting this volume back at other places on the canal if we don't know what the volume lost is. Can this question please be answered with actual numbers?

When the remedy was decided on, it was a goal to limit encroachment. That being said, it is not possible to restore 100% of the habitat in the canal without encroachment. Dredging of the

contaminated sediment is required for the cleanup, and bulkhead replacement is a necessary step to take before dredging. Even at the time of the remedy decision, we knew there was going to be a certain amount of encroachment as that is required when replacing bulkheads. The goal of daylighting turning basin 1 and part of the area under the 3rd Ave. bridge was to help offset some of that encroachment.

As calculated using some estimation – as not all of the bulkhead designs have been completed - the bulkhead encroachment totals roughly 0.81 acres in RTA2 and 0.12 acres in RTA1. The area that will be recovered in turning basin 1 and under the 3rd Ave bridge is about 0.51 acres.

Due to the dredging of soft sediment in the canal, we will be increasing the water depth along the length of the canal, thus INCREASING the holding capacity of the canal. The volume increase in RTA1 and RTA2 excluding the area under the 3rd Ave bridge is estimated to be about 118,000 CY or the capacity of 36 Olympic size swimming pools.

46. How will what we lose here be returned to us at Turning Basins 1 & 11 (near Lowe's in RTA 3)?

In coordination with EPA, the Trust is currently designing a wetland in the former First Street turning basin to provide ecological value and recreational benefits to the community and to offset water area lost by bulkhead encroachment throughout the project area. Additional encroachment mitigation will occur beneath the Third Avenue bridge and slightly into the Fifth Street Turning Basin, pursuant to plans which are still being developed. At Turning Basin 11, encroachment from the bulkhead construction is anticipated due to structural limitations from the former Pathmark building.

Follow up question:

What does EPA anticipate will be lost at turning Basin 11? What will we get in return? We are losing about a full acre of land in the entire canal and at least 832 square feet of land at this turning basin alone (which was also a "taking" of Federal waters). Is the failure of the old bulkheads at the Whole Foods site a unique situation? If not, can we expect further narrowing of the Canal and loss of waters? Will this be EPA's policy going forward?

***It should be noted that the First and Fourth Street Basin were illegally landfilled with EPA / NYSDEC failing in their protective duties... so technically up to 3.5 acres of habitat restoration would need, legally, to be compensated for.**

EPA is still reviewing this and we will bring it to the CAG when we have a further response. We have no further response at this point.

47. Will the CAG be involved in the designs for TB's 1 & 11?

EPA anticipates sharing the designs for these areas with the CAG to obtain feedback.

Follow up question:

As the 1st St and 11th St turning basins are in the planning stages, when does EPA anticipate those proposed designs will be shared with the CAG for input and commentary? Can CAG make suggestions during TB1 conceptual design phase or would that be after the completed designs are shared?

EPA will share the designs for the work when the design has advanced enough for the CAG to have meaningful input.

48. Can we expect mounding of the water from the underground streams?

Based on groundwater modelling efforts documented in the RTA2 100% Design Appendix B18 calculation package, the forecasted mounding near Whole Foods ranges from less than 0.5 foot to 1.5 feet. Groundwater mounding in the vicinity of TB1 will be evaluated as part of the TB1 design effort.

Follow up question:

Is the mounding a rise in groundwater level of .5' to 1' 5"? If so, where does that put the groundwater level at and around the Whole Foods area and the other side of that turning basin? Under what circumstances is the mounding happening? Is the mounding due to underground streams? Has a new hydrology/groundwater study been done that takes the underground streams and their outflows extending up into Park Slope & Carroll Gardens into account?

Yes, “mounding” is the delta – or change - in groundwater elevation. There is an increase in the vicinity of Whole Foods of 0.5 feet to 1.5 feet above the normal groundwater elevation. The groundwater mounding is highly localized right at the canal; we wouldn’t expect mounding anywhere near 8th Ave from the bulkhead work. The cap is not solid – in fact, it is designed to allow for groundwater to go through it, trapping the NAPL before it enters the canal. A groundwater modeling study in the area surrounding the canal was conducted as part of the RTA2 design. This is how we estimated that mounding in the vicinity of WF is 0.5 - 1.5 feet.

49. Is there a plan to use rip rap (layers of stones, dirt, pebbles, in essence) for fill? Presumably there would need to be weep holes or cutback of the new bulkhead for that to even work.

Bulkhead support system designs in RTA2 all require a 1-foot layer of Aquablok followed by gravel backfill. The bulkhead supports have been designed to not require weepholes. The only perforations in the bulkheads are for extending select outfalls. EPA is reviewing options for minimizing the extent of and visual impacts from the encroachment

Follow up question:

What are those options? Do they include natural solutions like oyster/mussel beds?

No, the space between the old and new bulkheads will be filled in (see above) and the options mentioned for minimizing the visual impacts include plantings and land-based mitigation.