Newtown Creek Community Advisory Group (CAG)

February 27th, 2020

Via email to schmidt.mark@epa.gov

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Comments on Proposed Plan for Newtown Creek Superfund Site Operable Unit 2

Dear Mr. Schmidt and Environmental Protection Agency Staff:

The Newtown Creek Community Advisory Group (CAG) respectfully submits the following comments on the Environmental Protection Agency's (EPA) proposed remedy to address Operable Unit 2 (OU-2) of the Newtown Creek Superfund site (Proposed Plan), related to future discharges of chemicals of potential concern (COPCs) from Combined Sewer Overflows (CSOs) from potentially responsible party New York City Department of Environmental Protection (DEP). We are deeply concerned that the Proposed Plan would take off the table any potential reduction of CSO pollution sources, given their ongoing destruction of our ecosystems and the ongoing dangers CSOs pose to those that live or work near the Creek or seek to utilize the waterway for recreational and/or educational purposes. Furthermore, we are disappointed with EPA that the first major decision in the Superfund remediation of Newtown Creek is to essentially let a polluter off the hook.

We believe finalizing this Proposed Plan would call into question EPA's commitment to cleaning up Newtown Creek and set a poor precedent for future Superfund decisions. Our waterway has been continuously poisoned for over 150 years and the communities surrounding it have been cut off from this once natural resource. Despite that, hundreds of human-powered boaters now take to the water each year and dozens of businesses utilize their shoreline access. Besides the human population, wildlife is showing its desire to return to the once decimated waters of the Creek. You can find blue crabs and ribbed mussels along the shores, numerous fish species swimming in its waters, and waterfowl prevalent year round. Community organizations and city agencies are working to bring back wetland plants to abandoned bulkheads and eroding shorelines. Allowing ongoing pollution to continue is unjust for us and unacceptable for EPA. Our detailed comments are below.

1. **EPA Has a Responsibility to Address All Pollution Sources, Including CSO Discharges.**

The CAG takes great issue with how the Proposed Plan attempts to downplay the severity of CSO pollution through the use of data, charts and narrative comparing CSO to other significant pollution sources such as Stormwater, Treated Discharges and East River Surface Water inputs. We believe that EPA's responsibility, in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), is to protect human and ecological health by eliminating/mitigating known pollution sources, period. It is irresponsible for EPA to avoid CSO reduction simply because it may not be the most significant ongoing pollution source. The data within the Proposed Plan supports a very basic understanding of urban waterbodies: reducing CSO volume means reducing the amount of COPCs entering the waterway. The modeling used in OU-2 clearly shows that reductions of CSO volume directly correlate with reductions in CERCLA chemical loading. This is highlighted in Figures 4-a through 4-d with a declining trend between the 0% capture ('No Action'), 61% capture ('Nor Further Action'), and 100% capture (implied at zero kg, but not shown) scenarios.[1] Because additional reduction beyond the arbitrarily set 61% figure will result in absolute reduction of COPCs entering Newtown Creek via CSO, we believe the EPA has the responsibility to pursue further action and prevent this ongoing pollution source.

2. **It Is Illogical to Compare CSO Discharges to Other Pollution Sources Yet to Be Evaluated.**

The other significant pollution sources referenced in OU-2 (which serve to downplay the severity of CSO input) have yet to be properly evaluated with cleanup goals in mind to reduce risks to human and ecological health. Therefore it is illogical to compare CSOs to other pollution sources with no criteria yet established to assess their impact or how each source may be reduced, as the OU1 Record of Decision has not yet been finalized. Additionally, while data referenced in OU-2 utilizes present day and anticipated CSO levels via skewed modeling (see Comment 7 below) and anticipated LTCP projects, the same favorable consideration is not given in evaluating the other pollution sources.

For instance, Figure 4-a shows Comparison of total polycyclic aromatic hydrocarbons (TPAH17) loads from CSOs and other evaluated inputs to the study area, with the concentrations from 'Treated Discharges' at approximately six times higher than the second most significant source, 'CSO - No Action.' Not only does this chart fail to consider the possibility of future reductions to TPAH17 levels across all sources, but we believe the 'Treated Discharges' data used is largely skewed by a single Con Edison outfall that has since been reduced under direction from EPA and New York State Department of Environmental Conservation (DEC). Because we believe these comparisons to be misleading, inaccurate, and not based on actual evaluations of impact or target cleanup goals, they should be omitted from the OU-2 proposed plan.

[1] See EPA, Newtown Creek Superfund Site Proposed Plan for Operable Unit 2, at Figures 4-a, 4-b, 4-c, & 4-d (Nov. 2019), available at https://semspub.epa.gov/work/02/562695.pdf.

3. It Is Premature to Take CSO Reduction Off The Table.

We believe the EPA should not act on OU-2 until it sets a clean-up goal and finalizes a remedy for OU-1, or it becomes clear in the interim that additional CSO capture will be required beyond that required in the LTCP. As it stands, the City is currently under a Consent Order to complete the requirements of the LTCP. Although that Consent Order is subject to future renegotiation and decades of other intervening changing circumstances, the City must, for now, move forward with the planning, designing, procurement, and construction of sewage capture infrastructure. As the City's actions will not change based on the Proposed Plan, there is no compelling reason for EPA to finalize it at this time. The Proposed Plan will merely take further CSO reduction "off the table." That should not be done without setting a remedial goal for COPCs. Remedial goals set for OU-1 should be based on risk factors for both humans and other sensitive receptors, such as benthic organisms. Once those goals are set, the OU-2 Proposed Plan can be assessed against them. To the extent that the Proposed Plan may allay the City's concerns about additional future actions being required, that is not a sufficient reason to make a determination before the OU-1 remedy. Until those other ongoing pollution sources are compared to CSO discharges, EPA should not take potential further CSO reduction "off the table."

The failure of the EPA, DEC and DEP to effectively coordinate the timing of Superfund and LTCP processes has left the community in an unfair predicament wherein a full consideration and mitigation of CSO impacts is being sacrificed in favor of convenience. Therefore, we believe that design and advancement of the LTCP solutions can and should continue up to the point where a future and final determination of Superfund related CSO impacts under OU-1 would not significantly disrupt existing progress towards CSO reduction.

4. A 61% Reduction of COPCs from CSOs Is Insufficient.

Modeling conducted under the LTCP, and evaluated as part of the OU-2 Focused Feasibility Study, estimates that over 1.2 billion gallons of combined sewer overflow are discharged to Newtown Creek annually. The 'No Further Action' remedy proposed will result in a 61% reduction from today's levels, still leaving over 460 million gallons of CSO entering Newtown Creek per year. As Figures 4a, 4b, 4c and 4d of the Proposed Plan clearly show, this 61% is not sufficient for significantly reducing the annual loads of various chemicals to Newtown Creek via CSO. Whereas the New York City performed a "knee-of-the-curve" analysis to attempt to make the case for diminishing returns in regards to pathogen and dissolved oxygen levels to appease state DEC needs for the LTCP, there appears to be a direct linear correlation between volume and chemical loading. In other words, the curve of reduction of COPCs is linear, so any further reduction beyond 61% would be equally impactful. This raises the question as to why the EPA would accept a failing grade (61%) reduction as part of the OU-2 Proposed Plan. Adopting the 61% reduction from another regulatory scheme is arbitrary and meaningless for the purposes of

Superfund. While 100% may not be cost effective, no other feasible option between 61% and 100% was even evaluated. As there is a direct linear benefit of COPC loading reduction resulting from any additional decrease in CSO discharge,, EPA must assess reasonable alternatives between 61% and 100% capture, including alternate means of controlling CSOs, such as additional green infrastructure, capture, treatment, and diversion.

5. **Superfund[2] Grants EPA Authority to Impose CSO Reduction Beyond the Clean Water Act Requirements.**

CERCLA provides clear federal authority to "respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment."[3] Additionally, the law authorizes "[l]ong-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening."

The Human Health Risk Assessment acknowledges the existing recreational uses along Newtown Creek, such as boating, fishing and swimming. There is also a threat to benthic macroinvertebrates from toxic sediments, as identified in the Baseline Ecological Risk Assessment. The failure to assess OU-2 in the context of these risk assessment would undermine the Superfund process. The growing interest among community members to further utilize the waterway and enjoy the benefits of a healthy ecosystem (as evidenced by increasing public access and boating opportunities) would be directly negated by ongoing contamination. The EPA should exercise its authority under Superfund to protect these uses and benthic habitat they depend on. At the very least, EPA must wait to assess the CSO remedy in the context of the sitewide Operable Unit 1 (OU-1) remedy to determine whether the threats from COPCs present in the CSO discharges are adequately addressed.

6. **"No Further Action" Is an Action Requiring National Consistency Review.**

It is inaccurate to label the proposed plan as "No Further Action." Instead it must be categorized as a proposed remedy and subject to National Consistency Review by the National Remedy Review Board (NRRB). In reality, the Proposed Plan, which is set to be a "final" remedy, is contingent upon and effectively requires an action by DEP that is expected to cost roughly $1.65 billion. While the City's forthcoming action was initially devised in the context of Clean Water Act statutory requirements, it also serves to control a significant amount of COPCs by capturing and treating sewage and polluted stormwater runoff.

The DEP's forthcoming construction of new sewage capture infrastructure underlies the determinations that EPA makes regarding the sufficiency of the Proposed Plan to mitigate human health and environmental risks, the asserted lack of need for further sewage capture,

[2] U.S. Envtl. Protection Agency, Superfund CERCLA Overview, https://www.epa.gov/superfund/superfund-cercla-overview (last accessed Jan 20, 2020).
[3] *Id.*

and the plans for ongoing monitoring and a potential track-back initiative. If the City were to subsequently renegotiate the requirements in its "Long-Term Control Plan" (LTCP) with the state Department of Environmental Conservation (DEC) to modify its proposed CSO capture infrastructure plans, EPA would have to reopen and reevaluate the OU-2 Proposed Plan. Therefore, the $1.65 billion expenditure by the City is an essential part of the proposed remedy.

The false categorization of the OU-2 Proposed Plan as "no further action" would allow it to improperly avoid the normal procedural elements of remedy selection. Specifically, it would allow OU-2 to avoid National Consistency Review by the NRRB, which determines whether such plans are consistent with Superfund law, regulations and guidance.

The NRRB reviews all Superfund response decisions for which the proposed remedial action is in excess of $50 million.[4] Despite EPA's insistence that the $1.65 billion action being taken by the City pursuant to the LTCP has nothing to do with Superfund, in fact, the agency reviewed a real "No Action" plan, and determined that such a plan would not offer the same pollution reduction benefit as the $1.65 billion remedy it selected. Because the EPA finds this significant amount of investment will optimize sewage pollution reduction, the NRRB should evaluate "the nature of the site, the risks posed by the site, regional and state/tribal opinions on proposed actions, the quality and reasonableness of the cost estimates, and any other relevant factors or program guidances"[5] to ensure the Proposed Plan is consistent with applicable laws, regulations and guidance.

The EPA cannot opt out of this procedure, and it must be completed and made available *before* republication of the Proposed Plan for review and comment.[6] Therefore, the OU-2 Proposed Plan must be withdrawn and subjected to NRRB review before being reissued for public comment.

7. The City's Pollution Models Include Unrealistic Assumptions that Underestimate Future CSO Discharges.

The Newtown Creek LTCP, upon which the Proposed Plan is based, has a number of shortcomings, including self-serving modeling, failure to adequately account for increasing precipitation caused by climate change, inflated green infrastructure implementation figures, and likely underestimation of redevelopment once the OU-1 remedy is implemented.

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[4] Memorandum from Robin H. Richardson, Acting Director, Office of Superfund Remediation and Technology InnovationU.S. Envtl. Protection Agency, regarding National Remedy Review Board Criteria Revision and Operational Changes, OSWER Directive 9285.6-21, Sept. 4, 2014, *available at* https://semspub.epa.gov/work/HQ/176423.pdf.

[5] Memorandum from Elliot P. Laws, Assistant Admin'r, Off. of Solid Waste & Emergency Response, U.S. Envtl. Protection Agency, Formation of National Superfund Remedy Review Board, at 2, Nov. 28, 1995, *available at* https://semspub.epa.gov/work/HQ/176405.pdf.

[6] *Id.*

New York City has a track record of skewing modeling results in its favor. For instance, DEP seems to have mixed year-long and seasonal sampling datasets to devise its LTCP to control pathogens and low dissolved-oxygen conditions in receiving waters resulting from CSO discharges. Without explanation, the City has also relied on separate one-year and ten-year models for the LTCP, depending on the pollutants it assessed; it is yet unclear why DEP used one year of rainfall data (2008) for its InfoWorks modeling assessment and ten years of rainfall data for the East River Tributaries Model assessment. While 2008 was selected as representing a typical year, the ten year record includes 2008, and the longer record would better capture long-term averages and trends. Given the previous attempts to create favorable data, questions arise about sampling and modeling for COPCs:

- What modeling dataset did the EPA use to inform the Proposed Plan?
- For what time period is the modeling applicable?
- Were models based solely on 23 samples?
- Were those samples representative of different times of day, different seasons, and different outfall locations (which drain separate sewersheds)?
- Are 23 samples from CSO outfalls sufficiently representative of CSO outfalls in all seasons?
- Did EPA oversee CSO Outfall sampling? How so?
- Did EPA perform its own CSO sampling or rely on a different CSO sampling protocol to devise the Gowanus Canal remedy? If so, why?
- Are the samples covering 96% of CSO discharges representative enough of all discharges to model local sediment deposition?

In addition to modeling anomalies, one of the most vital shortcomings of the LTCP and Proposed Plan lies in the fact that the baseline modeling in determining CSO volume ignores climate change. As it is based on 2008 rainfall data, the LTCP fails to incorporate the recommendations of the New York City Panel on Climate Change to account for the effects of increased precipitation, which have been repeatedly acknowledged by DEP, DEC, and EPA. Construction of the proposed sewage infrastructure pursuant to the LTCP is not expected to be complete until 2042, and its useful life will potentially extend over 100 years.

According to the New York City Panel on Climate Change ("NYPCC"), storms could grow significantly in frequency and intensity by 2050. "Mean annual precipitation increases projected by the [global climate models] are 4 to 11 percent by the 2050s and 5 to 13 percent by the 2080s."[7] Therefore, the project will likely fail to achieve the 61% reduction goal as of its first day of operation (estimated 2042). Yet DEP continues to rely on backward-looking projections, using 2008 as a model year. DEP states in its October 10, 2019 response to comments on the Citywide LTCP:

[7] N.Y. City Panel on Climate Change, 2015 Report Executive Summary (2015), http://onlinelibrary.wiley.com/doi/10.1111/nyas.2015.1336.issue-1/issuetoc.

> [t]he typical rainfall year used for modeling is the 2008 JFK rainfall, which remains a good representation of current average rainfall conditions through 2019

(Response 1). But even if such a model continues to account for average rainfall through the past ten years, conditions are expected to grow significantly wetter. For example, 2008 saw only 46.3 inches, but 57.4 inches of precipitation fell at JFK airport in 2018.[8] The City and EPA can rely on NYPCC data and expect these higher precipitation rates to become the norm, with both frequency and intensity of rainfall increasing.

Even using 2011 as the base year for the Proposed Plan model fails to account for future increases both when the LTCP is initially implemented and throughout the useful life of the sewage-capture infrastructure. EPA must reevaluate the effectiveness of the Proposed Plan to protect human and ecological health, given the increased precipitation and corresponding increase in CSO discharges over the next century.

Additionally, sea level could rise 8 to 30 inches by 2050, high enough as to inundate the low-lying wastewater infrastructure. For New York City,

> [National Panel on Climate Change] (2015) projects a mid-range (25th–75th percentile) sea level rise of 11–21 in. (0.28–0.53 m) at the Battery by the 2050s. . . . High-end estimates (90th percentile) reach 30 in. (0.76 m).[9]

When relying on existing and future stormwater and sewage infrastructure, EPA must assess and model how sea level rise will affect the ability of wastewater treatment plants, CSO outfalls, and new proposed sewage capture tunnels to function properly.

While climate change is a certainty, predicting population change in New York City is difficult. The LTCP does include a predicted model of population growth, but it does not necessarily account for proposed rezonings, such as the ongoing proposal to rezone northern Brooklyn areas adjacent to the creek, in the neighborhoods of Greenpoint, East Williamsburg, and Bushwick.[10] As representatives of developers are currently attending CAG meetings, it is reasonably foreseeable that there will be pressure to construct residential houses once the remedy is underway, bringing greater populations and combined sewer volume to the Newtown Creek sewershed.

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[8] Nat'l Weather Serv., John F. Kennedy Airport, NY Historical Data, https://www.weather.gov/okx/KennedyHistorical (last accessed Nov. 27, 2019).
[9] N.Y. City Panel on Climate Change, 2015 Report Executive Summary (2015), http://onlinelibrary.wiley.com/doi/10.1111/nyas.2015.1336.issue-1/issuetoc.
[10] Paul Stremple, Newtown Creek's Brooklyn Waterfront Faces First Rezoning Changes in Nearly 60 Years, Brooklyn Eagle (Apr. 10, 2019), https://brooklyneagle.com/articles/2019/04/10/newtown-creeks-brooklyn-waterfront-faces-first-zoning-changes-in-nearly-60-years/.

The models also depend on incorrect assumptions about implementation of green infrastructure. On page 10 of the OU-2 Focused Feasibility Study, EPA explains that conditions for determining the baseline CSO discharge of 1.16 billion gallons per year, which is less than the current 1.62 billion gallons per year, are calculated using increased future treatment capacity and reduced stormwater flow because of green infrastructure plans. The EPA should share with the CAG exactly how these figures were determined. As it stands, the City is very unlikely to meet its 2030 green infrastructure implementation goals. DEP is already far behind its green infrastructure targets and does not expect to achieve its 2030 milestones.[11] City-wide, DEP has missed a previous milestone to manage the equivalent of 1,181 impervious acres (a 1.5% green infrastructure application rate) in 2015, and, as of 2019, it still has managed only 591 acres (a 0.75% green infrastructure application rate) in 2019. DEP is most likely going to miss its 2030 milestone, which is the equivalent of 7,873 managed acres (a 10% green infrastructure application rate).[12] Given the slow start to the green infrastructure program in New York City, DEP should not incorporate these projects into its baseline projections for its analysis of CSO.

We believe that all proposed solutions for the clean-up of Newtown Creek must account for the various changes that climate change will bring to New York City, including sea level rise and precipitation increases. Therefore, we ask that the EPA provide the community with a new analysis that both accurately reflects both predicted local CSO volumes and COPC loadings (based on increases in annual rainfall and populations within the watershed) for the years 2050 and 2100, and what the new levels mean in regards to the clean-up and potential recontamination of Newtown Creek.

8. The Solution to Pollution Is Preventing Overflow, not Track-Back, Dredging or Sorbent Pads.

We are very concerned that the only additional potential actions considered in the OU-2 Proposed Plan are monitoring, the implementation of a track-back program to “identify sources of elevated contaminant concentrations within the sewershed,” and control actions such as “the placement of sediment traps and/or oil sorbent pads at the end of CSO discharge pipes and in-creek maintenance dredging to address potential accumulation of contaminated solids near the CSO discharges.” We find both approaches to be ineffective, and unproven, band-aids that will achieve very little in the clean-up and elimination of chemical loading to Newtown Creek.

In regards to the track-back program, the Newtown Creek sewershed is approximately 4,642 acres in total. In some cases, there are single CSO pipes that drain entire neighborhoods where hundreds of thousands of people live, work, flush toilets, and potentially dump COPCs into catch basins. The concept of locating the sources of elevated chemical levels within a combined

[11] N.Y. City Dep’t of Envtl. Protection, 2018 Green Infrastructure Annual Report 2 (2019).
[12] *Id.*

sewer system area so massive and complex is optimistic at best. Additionally, we do not understand the basic logic as to why and how this track-back plan is being considered.

Secondly, the FFS gives very limited information on how sediment traps, sorbent pads, or maintenance dredging would effectively reduce chemical loads to the Creek, or potentially work in conjunction with, or possibly disrupt, chosen remedies that are yet to be selected under OU-1. EPA needs to provide greater information on these programs to the CAG and ensure that they are consistent with what the community will be seeking in an ultimate Record of Decision.

9. EPA Should Be Consistent With Gowanus Methodology and CSTAG Recommendations.

On July 9th, 2015 the Contaminated Sediments Technical Advisory Group (CSTAG) presented formal recommendations to EPA Region 2 regarding Newtown Creek.[13] Principle 1 in the letter argues to "Control Sources Early" and specifically mentions the impacts of CSOs in relation to CERCLA: "CSTAG recommends that the Region work with the appropriate regulatory authorities to develop a plan to eliminate any unpermitted, piped discharges, minimize impacts from CSOs, and address groundwater discharges that may recontaminate the Creek." EPA should heed the advice of CSTAG and fully consider options to 'minimize impacts' from CSO and not attempt to write-off the documented chemical loading and recontamination that CSO will continually bring to Newtown Creek.

In its Record of Decision for the Gowanus Canal, a nearby waterway similarly affected by heavy industrial use and ongoing CSOs, EPA required the DEP to construct two sewage capture tanks totalling 12 million gallons in volume in order to prevent future risks to benthic habitat. While Newtown Creek is a larger waterbody with different conditions from Gowanus Canal, the methodology for assessing the potential future risk of recontamination from ongoing CSO discharges should be the same or nearly the same for the two waterbodies. If not, EPA must provide an articulable reason for the differing methodologies. The different superfund remedies for waterbodies only 3.5 miles apart from each other are another reason the proposal must be subject to National Consistency Review by the NRRB. The fact that DEC and the City have previously agreed to a sewage capture plan in Newtown Creek is irrelevant to the methodologies to analyze risk in the context of Superfund.

The decisions set forward by EPA under OU-2 will have significant impact on the health of the ecosystems and communities that live in and near Newtown Creek. We look forward to working with EPA to implement meaningful solutions that properly address the ongoing and future impacts of CSO, as well as all other contamination sources.

[13] Contaminated Sediments Technical Advisory Group, "CSTAG Recommendations on the Newtown Creek Contaminated Sediment Superfund Site " July 9th, 2015.

Sincerely,
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