



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 2
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BY EMAIL

Marisa Lago, Director
New York City Department of City Planning
120 Broadway
31st Floor
New York, NY 10271

Re: Comments on Gowanus Neighborhood Rezoning Draft Environmental Impact Statement
and Gowanus Canal Superfund Site, Brooklyn, New York

Dear Ms. Lago:

The U.S. Environmental Protection Agency (EPA) submits this letter for the purpose of commenting on the Gowanus Neighborhood Rezoning plan and accompanying draft environmental impact statement (DEIS), which the Department of City Planning (DCP) is overseeing on behalf of the City Planning Commission as lead agency.

Background

As you know, the proposed rezoning affects an area surrounding the Gowanus Canal which EPA placed on the Superfund National Priorities List in March 2010, pursuant to the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA" or "Superfund"). The Gowanus Canal Superfund Site ("Site") includes the approximately 100-foot wide, 1.8-mile-long Canal, and upland areas that are sources of contamination to the Canal.

In 2013, EPA issued a Record of Decision (ROD), selecting a remedy for the cleanup of the Site that includes the dredging and off-Site disposal of much of the accumulated contaminated sediment within the Canal, the capping of certain contamination remaining below the dredged material, and the control of upland sources to prevent the recontamination of the clean Canal. See <https://semspub.epa.gov/work/02/692106.pdf>. Such upland sources include certain contaminated sewer solids discharged into the Canal during Combined Sewer Overflow (CSO) events, when stormwater and sanitary sewage capacity is exceeded within the approximately 1,758-acre Gowanus Canal watershed. Among other things, the CSO portion of the EPA-selected remedy requires the construction and operation of two CSO retention tanks to help prevent recontamination of the Canal after dredging. Pursuant to several EPA administrative orders, New York City (City), a potentially responsible party (PRP) for the Site, is required, among other things, to design and construct those CSO tanks, take various measures to control CSO and stormwater discharges to the Canal, and participate in the first stage of the dredging and capping work. The New York City Department of Environmental Protection (DEP) has taken the lead for

the City work under the orders. The in-Canal cleanup work, which began in November 2020, is being performed by a group of PRPs, including the City, led by National Grid, pursuant to one of the aforementioned orders.

EPA has previously outlined its role in the City's land-use process through EPA's May 2019 comments to DCP on the DEIS scoping documents and in EPA's October 27, 2020 letter to the Director of the DCP and the Commissioner of DEP. EPA's October letter stated:

Consistent with EPA's May 2019 comments, the EIS process should accurately determine not just the total wastewater generation, but also the incremental sanitary and stormwater volumes and what appropriate mitigation measures, or combination of measures, are required to prevent added CSO-related discharges to the Canal and adverse effects on the Canal remedy. In particular, EPA believes that DEP must determine whether any infrastructure serving the parcels that are to be rezoned requires upgrading to provide adequate conveyance and prevent overflows to the Canal. EPA will review all such determinations and other relevant information related to the impacts of the proposed rezoning on the Superfund Canal remedy and will assess whether any mitigation measures proposed as part of the development, as a result of the rezoning, would indeed be protective of the Canal remedy.

EPA acknowledges the City's authority to engage in land-use planning and zoning. With that being said, however, EPA respectfully submits that any rezoning impacting the Canal must proceed in a manner that is protective of human health and the environment, as envisioned in EPA's Canal remedy.

EPA reaffirms the above positions as part of these DEIS comments. As you may be aware, EPA has received requests from various elected officials, as well as community members, for EPA to broadly evaluate the DEIS.

Although EPA has reviewed the DEIS in its entirety, consistent with EPA's public positions on the rezoning, EPA's focus is on ensuring that there is an appropriate evaluation of whether the rezoning plan is consistent with Superfund requirements and will protect the Superfund remedy, which was selected to be protective of public health and the environment by addressing the release and threatened release of hazardous substances at and from the Canal. EPA also has provided comments to other matters, reflecting the Agency's strong commitments to ensuring resilient development in the face of climate change and to environmental justice, particularly in the Gowanus neighborhood where EPA is cognizant of the presence of environmental justice areas of concern, and also the existence of substantial climate impacts on those and other nearby areas.

In addition to participating in the rezoning process, including by providing these DEIS comments, EPA will continue to separately exercise its federal Superfund oversight authorities to ensure that the protectiveness of the Site remedy is not compromised.

Summary of Comments

EPA's review of the DEIS has identified a number of inconsistencies in the presentation of wastewater and stormwater calculations in Chapter 11 and Appendix F of the DEIS. These are outlined further below. As is also discussed further below, the DEIS lacks adequate clarity in presentation and supporting information in the form of data, modeling inputs, and other assumptions for the CSO-related conclusions presented therein. As a result, it is unclear whether correcting and supplementing these items will allow the preparers to still conclude that the project would result in either no increase or a net reduction in CSO loading. Similarly, based on the information provided in the DEIS, EPA also cannot discern the effect that the City's pending 2021 Unified Stormwater Rule will have in offsetting increased sanitary sewage loading and reducing CSO discharges.

While EPA is, and will in the future be seeking some of this supplemental information about rezoning impacts from DEP under its Superfund oversight authority, EPA believes that these CSO discharge questions should be addressed in the DEIS as well, so that all interested parties can better understand the rezoning process.

EPA also notes several inconsistencies between the optimistic CSO-related projections found in the DEIS, and positions the City/DEP has taken in response to EPA's administrative orders to the City, including delays in the design and construction of the CSO retention tanks and the City's stated expectation that it will not fully comply with EPA's latest order.

Specifically, on July 14, 2021, the City submitted a letter, enclosed here, concerning its intent to comply with only certain provisions of EPA's March 29, 2021 administrative order (Order) issued to the City under Section 106 of CERCLA.¹ This Order requires the City to, among other things, construct and operate the two CSO retention tanks to prevent contaminated solids discharges to the Canal, which could compromise the in-Canal cleanup.

The City's letter asserts that it has sufficient cause not to comply with, among other things, the Order's deadlines for the work; requirements to ensure compliance with its stormwater regulations at new development projects (which would include the proposed 2021 Unified Stormwater Rule), including separation and treatment of stormwater at new Canal-side development projects and street-ends; and discharge monitoring and reporting requirements to ensure the CSO remedy remains effective. The City asserts that EPA's 2028 and 2029 CSO retention tank construction deadlines are not achievable by DEP, even though DEIS Figure 11-4 indicates that both tanks will be completed in 2028. The CSO-related conclusions in the DEIS are contradicted, rather than corroborated, by the positions the City has taken, post-DEIS, with regard to the CSO portion of the remedy EPA selected for the Superfund site.

¹ EPA disagrees with the validity of the positions set forth in DEP's July 14, 2021 letter, and will be responding separately.

Specific DEIS Comments

Sanitary and Stormwater Projections

EPA's review of the DEIS has found numerous inconsistencies in the presentation of wastewater and drainage calculations. For example, it does not appear that the results shown in Chapter 11 for sanitary flows and stormwater runoff calculations were used in the modeling results shown in Appendix F. In addition, the DEIS conclusions are not consistent with previous CSO calculations that DEP has provided to EPA during discussions of other aspects of work related to the Site. The discrepancies should be fully addressed.

For these reasons, as noted, with the information presented, EPA cannot assess what the net CSO discharge impacts will be from the proposed rezoning. In addition, EPA cannot assess the extent to which compliance with the proposed 2021 Unified Stormwater Rule will be able to mitigate the additional sanitary flows that will be generated by the proposed redevelopment. While these inconsistencies in the DEIS may not affect EPA's ability to evaluate performance of the CSO components of the 2013 ROD, which EPA can assess through its CERCLA authority, the lack of clarity should be resolved. Specifically, this document needs to clarify whether the inputs used in model development are consistent with earlier analyses and, if not, how updated model inputs were developed.

The key sanitary and stormwater projection issues are summarized below.

- 1) Inconsistent total flows are indicated:
 - a) Page 11-4 states that the new development will be "generating additional sanitary flow of 1.29 [million gallons per day (mgd)]."
 - b) Table 11-8 on page 11-16 states that an additional 1.98 mgd of wastewater will be generated as result of the rezoning.
 - c) Appendix F, Table 3-4, states that the additional sanitary flow is 1.605 mgd.
- 2) Different residential wastewater generation rates are assumed, contrary to the City Environmental Quality Review (CEQR) manual and other standards:
 - a) Page 11-22 states: "Additional dry weather sanitary flow was added to the model based on the projected no action residential population in the rezoning area, assuming a per capita wastewater generation of 73 [gallons per day (gpd)]." The same 73 gpd wastewater generation assumption is made for the "with-action" scenario on page 11-23. The 73 gpd is less than the 100 gpd specified in the CEQR manual and comparable guidelines, such as the Ten States Standards and other design guidelines, and it is inconsistent with other statements in Chapter 11 and Appendix F. Nor is there any explanation for using 73 gpd in this calculation.
 - b) Table 3-4 in Appendix F, which is calculated based on a different methodology from the one cited above, known as a transit analysis zone, effectively utilizes a figure of 83.0 gpd when the calculations are normalized as unit sanitary flow for the rezoning, but higher and lower unit amounts are used for the baseline and without rezoning scenarios (see the yellow-highlighted column below that EPA has added to Table 3-4). This variation needs to be explained.

Scenario	Population in Rezoned Area	Sanitary Flow in Rezoned Area (MGD)	Sanitary Flow (gpd)
Baseline	6,541	0.640	97.8
2035, Without Rezoning	8,746	0.960	109.8
2035, With Rezoning	27,035	2.245	83.0

- 3) Table 11-4 on page 11-9 shows sanitary flows for four rainfall volumes for each of five "subcatchment areas" in the Red Hook Water Resource Recovery Facility (WRRF) service area and one Owls Head WRRF subcatchment area for the Existing Condition. The "Sanitary Volume to Combined Sewer System" (CSS) in millions of gallons (MG) appears to change from one size event to another, but should be constant for all scenarios because, while the stormwater volume may change, the sanitary load would not. The same is true in Tables 11-7 and 11-11 for the other scenarios. It also gives the impression that there are no sanitary flows from several of these catchment areas, which is, obviously, not possible. The supporting data, assumptions, and calculations are not presented in the DEIS.
- 4) During the past several years, the City has revised its CSO discharge models to include the improvements projected to result from the construction of the two EPA-required CSO retention tanks, as well as from DEP's green infrastructure and High-Level Sewer Separation projects. DEP provided typical year CSO discharge volume calculations to EPA at various times. The DEIS conclusions and the typical year CSO discharge volumes at specific outfalls shown below in Table 11-16 for the "No Action Condition" are not consistent with the LTCP, as well as other submittals by DEP to EPA, and it would be important to resolve such discrepancies coming from different NYC entities. For instance, DEP's estimates of CSO volumes from outfalls to the Canal post-retention tank construction provided to EPA in September 2018, were in some cases significantly different from estimates provided in the DEIS. In addition, Appendix F does not appear to be consistent with the modeling and engineering work presented to EPA at past meetings. It appears that new modeling may have been performed to represent new conditions (e.g., the retention tanks) using the methods the City has used previously, but EPA cannot piece together the City's previous submittals with those in the DEIS.

DEIS conclusions:

"The analysis found that, under the With Action condition, with the additional development facilitated by the Proposed Actions, CSO volumes would decrease as compared with the No Action condition despite the increase to sanitary flows from new development." - Page 11-4

"The Unified Stormwater Rule benefits in the rezoning area more than offset the increase in sanitary flows and, even with the increased population and sanitary flow, would result in approximately 5 million gallons per year of CSO reduction to the Gowanus Canal." - Page 11-4

"The assessment found that the estimated pollutant loads to Gowanus Canal decreased, due to the decrease in CSO volumes as described above." - Page 11-4

From DEIS, Table 11-16:

Table 11-16
Detailed Analysis—CSO Volume

Outfall #	No Action Condition CSO Volume—Tank (MG)	With Action Condition CSO Volume—Tank (MG)	With Action Increment (MG)
OH-005	0.9	0.9	-
OH-006	18.4	18.3	-0.1
OH-007	10.2	9.9	-0.3
RH-030	17.1	16.2	-0.9
RH-031	19.4	18.2	-1.2
RH-033	0	0	-
RH-034	29.9	28.5	-1.4
RH-035	8.1	7.0	-1.1
RH-036	0.4	0.1	-0.3
RH-037	0.04	0.02	-0.02
RH-038	1.0	0.9	-0.1
Total	105.44	100.02	-5.42
Source: DEP, Gowanus Canal CSO and Surcharging Assessment Technical Memorandum (January 2021)			

- 5) For example, on the west side of the Canal, the no-action discharge volumes shown in Table 11-16 for RH-035, where substantial rezoning would occur, are more than 2.5 million gallons higher than previous projections made available to EPA, and the Agency has not been provided with sufficient information to be able to understand how this value was determined.
- 6) The CSO discharge volumes shown in Table 4-2 of Appendix F are not consistent with Chapter 11 of the DEIS.
- 7) There appear to be inconsistencies between how sanitary flow and stormwater runoff calculations shown in Chapter 11 and Appendix F were performed for the “with” and “without” scenarios utilizing the proposed Unified Stormwater Rule.

Rainfall and Climate Resiliency

Watershed modeling performed by the City in support of the Gowanus Canal 2015 Long-Term Control Plan (LTCP) relied on a 2008 model storm year. The rainfall data for storm frequency, intensity and duration are critical inputs for the volume projections set forth in the DEIS. However, as reflected in EPA’s response to public comments in the ROD, various stakeholders questioned the suitability of the rainfall data selections that had been utilized by DEP. Among other things, that rainfall data, which continues to be utilized in the DEIS, is from the National Oceanic and Atmospheric Administration (NOAA) weather station at JFK Airport, which is the lowest of the three NOAA weather stations, after Central Park and LaGuardia Airport. Although DEP is only mandated to utilize one rainfall year for purposes of the LTCP process, EPA is not aware of any guideline that would preclude the City from providing the public with a more comprehensive evaluation of alternative rainfall scenarios in the DEIS. EPA recommends that new watershed modeling be prepared for the Gowanus watershed that updates the analysis from

the 2008 model storm year to something more representative of expected future climate predictions.

In September 2020, the City released its updated “Climate Resiliency Design Guidelines,” the primary goal of which is to incorporate forward-looking climate change data in the design of City capital projects. The City has projections for the metropolitan region that anticipate extreme weather will increase in frequency and severity and that the climate will become more variable. Of particular note for the Gowanus Neighborhood Plan, these projections include: 1) mean annual precipitation increasing between 4% to 13% by the 2050s and by 5% to 19% by the 2080s; and 2) sea level rising by 11 to 21 inches by the 2050s and by 18 to 39 inches by the 2080s. These climate change timeframes will overlap or follow those projected for the rezoning build-out.

Sea level rise is of equal importance to increased future rainfall, as there are certain CSO outfalls that are currently inundated by seawater entering the combined sewer system during certain tide cycles, and this problem is expected to worsen. When the sewer system capacity is compromised during high tides and storm surges, such as Hurricane Sandy, CSO overflows are blocked from discharging into the Canal, causing potential sewage backups and discharges at other locations.

It is unclear to EPA if the City expects these climate change projections to be incorporated into the baseline conditions in rainfall-related City planning evaluations, such as this DEIS. Like the alternative rainfall scenarios noted above, DEP could provide a probability analysis of the various impacts of the range of potential climate change outcomes on future projected CSO discharge volumes.

City Noncompliance/DEIS Inconsistency with EPA CSO-related Superfund Orders

For several years, the City has been in significant noncompliance with EPA Superfund administrative orders issued between 2014 and 2016 regarding the Site. EPA included a partial summary of this noncompliance in paragraphs 50-54 of the Order, available online at: <https://semspub.epa.gov/work/02/620708.pdf>

As is noted above, on July 14, 2021, the City submitted a letter concerning whether it intends to comply with the Order. The City’s letter disputes various terms of the Order. This is of concern for several reasons, including the fact that many of the Order provisions that the City disputes are central to the stormwater and sewer analysis set forth in the DEIS. The City’s past non-compliance (principally through DEP actions/inaction) and stated intention to not comply with various CSO stormwater-related aspects of the Order, including the CSO retention tank construction deadlines, is of importance to EPA’s comments on the DEIS, in part because the timely design and construction of the CSO retention tanks required by EPA’s orders is an assumed precondition of much of the DEIS’s analysis of stormwater and sewer outcomes of the proposed actions.

For instance, as mentioned above, the City asserts in DEIS Figure 11-4 that both CSO retention tanks will be complete in 2028, whereas in its correspondence with EPA, DEP has argued that meeting EPA’s 2028 and 2029 CSO retention tank deadlines in the Order is not achievable. It

should be noted that the Order containing this construction schedule was issued to the City on March 29, 2021, several weeks in advance of the April 19, 2021 issuance of the DEIS.

The City also asserts that it has sufficient cause not to comply with EPA's Order requirements to ensure compliance with existing and future stormwater regulations (which would include the pending 2021 Unified Stormwater Rule) to separate and treat stormwater at new Canal-side development projects and street-ends as well as to perform discharge monitoring and reporting to ensure the CSO portion of the remedy remains effective. In contrast, the DEIS presumes compliance with the City's stormwater rules, projects CSO discharge reductions that cannot be readily verified now and provides no mechanism for future confirmation or correction.

EPA believes that in anticipation of potential redevelopment, the ROD is sufficiently clear in requiring that any future activities that fall under the City's purview, including development by other parties that requires approval by the City, do not 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 NYC rules for sewer connections (Chapter 31 of Title 15 of the Rules of the City of New York) and shall be consistent with current NYCDEP criteria (NYCDEP, 2012) and guidelines to ensure that hazardous substances and solids from additional sewage loads do not compromise the effectiveness of the permanent 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.
[ROD at page 84.]

Absent the City's recognition of EPA's Superfund authority to require the City to ensure appropriate implementation of its stormwater regulations for purposes of implementing the ROD, the City is potentially reserving the option to waive the application of its own stormwater rules when reviewing projects at the Site. As a result, there is no assurance that either the current or anticipated stormwater regulations will be implemented in a manner that achieves the CSO discharge projections set forth in the DEIS.

One potential resolution for achieving the goal of a net zero increase in CSO discharges to the Canal, as stated by certain City elected officials and community groups, as well as avoiding negative impacts to the Site remedy, may be the inclusion in any final rezoning of a condition that the City fully comply with EPA's Superfund orders, which include the timing for constructing the CSO retention tanks and ensuring appropriate implementation of stormwater regulations, stormwater separation/treatment, monitoring, and reporting.

Public Place/Citizens Manufactured Gas Plant Site

A portion of the former Public Place/Citizens Manufactured Gas Plant (MGP) site on Smith Street has been proposed as a mixed-use redevelopment project that includes affordable housing, market-rate housing, and a new school. EPA is working with NYSDEC to address questions

raised about this former MGP site. It is the largest group of contiguous parcels within the area of the rezoning proposal.

Developing new affordable housing is a valuable tool in combatting housing challenges faced by low-income residents. Recent concerns from a variety of public officials and Gowanus stakeholders have called into question the viability of the Public Place site for either affordable housing or public use, such as a new public school, citing environmental justice concerns, stemming from the yet-to-be-completed cleanup of the former MGP at that location.

By agreement between the agencies, NYSDEC generally has the lead on the upland cleanups along the Canal, subject to certain reservations in the ROD. EPA's primary Superfund focus is ensuring that the Public Place/Citizens site cleanup mitigates future contaminant releases to the Canal. In light of public concerns, EPA is also working closely with NYSDEC to assure that the upland cleanup will meet the level of cleanup necessary for the site's intended future uses. EPA believes that it is feasible for the site to be cleaned up to allow for the types of land uses currently under consideration. As part of EPA's assessment of the Public Place remediation effort, EPA and NYSDEC have agreed to work cooperatively with all parties involved to ensure that the remediation will be protective of public health and the environment, and that the basis for the remedy is clearly communicated to the public.

Environmental Justice

EPA is cognizant that the Gowanus area includes Environmental Justice areas of concern, including the proposed affordable housing at Public Place and with respect to the many residents living in existing public housing. In the DEIS, Chapter 3 (Socioeconomic) touches on some of the same issues. EPA recommends an environmental justice analysis be incorporated into Chapter 3. This chapter already analyzes the potential for economic displacement as a consequence of the "with-action" activities. This analysis might include evaluating the net displacement of people with lower economic mobility to perceivably less desirable subareas of the study area, or elsewhere, and whether that may result in more exposures to pollution. If the City would like assistance from EPA in this regard, or would like to discuss this matter further, please reach out to David Kluesner, Director of Strategic Programs, Office of the Regional Administrator, at 212-637-3653 or Kluesner.dave@epa.gov.

Conclusion

EPA will continue to separately exercise its federal Superfund oversight authorities to ensure that the protectiveness of the ROD remedy is not compromised.

EPA's Order requires monitoring to help determine remedy effectiveness and whether and to what degree any mitigation will be required. EPA will also continue to evaluate calculated sanitary flows, drainage, and mitigation of stormwater discharges to the Gowanus Canal for proposed redevelopment projects on a case-by-case basis. These actions are all independent of the proposed rezoning and the proposed 2021 Unified Stormwater Rule.

EPA looks forward to engaging with the City, the community, and other stakeholders so that the appropriate information is available for a productive consideration of the Superfund environmental issues raised by the rezoning proposal.

Sincerely yours,

DOUG
GARBARINI

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GARBARINI
Date: 2021.08.09 15:49:17 -04'00'

Doug Garbarini, Chief
New York Remediation Branch
Superfund and Emergency Response Division

Enclosure

cc: Honorable Vincent Sapienza, P.E.
Commissioner, DEP

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July 14, 2021

Via Electronic and First-Class Mail

Brian Carr, Assistant Regional Counsel
United States Environmental Protection
Agency – Region 2290 Broadway – 17th Floor
New York, NY 10007-1866

Re: Gowanus Canal Superfund Site (“Site”)
Administrative Order for Remedial Action, Removal Action and Remedial
Design, CERCLA 02-2021-2019

Dear Mr. Carr:

I am writing on behalf of the City of New York (the “City”) in response to the above-referenced Administrative Order for Remedial Action, Removal Action and Remedial Design, which was issued by the United States Environmental Protection Agency (“EPA”) to the City on March 29, 2021 and subsequently amended by EPA by letter dated June 29, 2021 (as amended, the “Order”).

On April 29, 2021, Ms. Kathryn DeLuca, Esq. conducted a conference with the City under paragraph 123 of the Order. At the conference, the City set forth numerous technical and legal concerns regarding certain work requirements in paragraph 73 of the Order. Mr. Brian Carr, Esq. requested that the City propose clarifying language to certain provisions in Paragraph 73 where EPA and the City agreed on the intent of the provisions, but the language of the Order needed revision to clarify that intent. By email dated May 4, 2021, I provided this language on behalf of the City.

By letter dated May 5, 2021, Ms. DeLuca requested that the City submit a written letter detailing the concerns raised at the April 29th conference, which the City submitted to EPA on May 12, 2021. By email dated May 19, 2021, Mr. Thomas Lieber, Esq. notified the City that EPA decided to extend the effective date of the Order to allow the Agency sufficient time to consider the concerns the City raised.

By letter dated June 29, 2021, EPA provided its response, which included, *inter alia*, amending certain wording of Paragraph 73 “for purposes of clarification.” The City’s proposed



clarifying language submitted to Mr. Carr on May 4th was largely rejected, and more generally, the revisions to the Order did not address the City's legal and technical concerns.

EPA's June 29th letter stated that the Order would become effective on June 30, 2021, and directed the City to provide written notice to EPA stating whether it will comply with the terms of the Order by July 7, 2021. Due to the July 4th holiday, EPA subsequently granted an extension of the deadline to provide written notice until July 14, 2021.

Pursuant to Section XXVI of the Order, the City hereby notifies EPA that the City will comply with the Order by performing the CSO design and CSO remedial action work required by the Order, as well as the removal action for design and construction of a bulkhead at property owned by the City where the OH-007 CSO tank will be constructed. To that end, the City continues to advance the design, removal and remedial action work required by the Order. Specifically:

- the City completed procurement for the OH-007 Tank Remedial Design by May 31, 2021;
- based on the current design, the City expects completion of the procurement for the Salt Lot/2nd Avenue Bulkhead by December 31, 2021;
- Although the Order contains no deadlines for CP-1 and CP-1A for the RH-034 tank work, CP-1 and CP-1A bids were received on June 23, 2021 and July 8, 2021 respectively, and DEP expects to proceed with award and registration of these contracts following due diligence evaluation of the bids, and the apparent low bidder's EH&S performance.

However, consistent with the issues raised at the conference and in our subsequent correspondence with the Agency, the City has sufficient cause not to comply with the following components of the Order:

- i. the Order's deadlines for the work, which are impossible to achieve for technological reasons, City-mandated procurement processes and financial reasons;
- ii. the Order's requirements regarding separate storm sewers, which extend beyond the scope of the CSO controls selected in the September 27, 2013 Record of Decision ("ROD") and are inconsistent with the National Contingency Plan, 40 C.F.R. § 300 *et seq.*;
- iii. the Order requirements regarding enforcement of City regulations and EPA's approval of property locations proposed to be used in connection with the

construction of the OH-007 Tank, which extend beyond EPA's authority to compel under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9601 *et seq.*, and are therefore invalid; and

- iv. Certain requirements in paragraphs 73.d. and 73.f. of the Order that are vague and devoid of standards such that the City has inadequate direction as to how to comply with the Order.

The City's reasons for not complying with these specific aspects of the Order are grounded in objective evidence, and its position is reasonable and made in good faith. Further, alleged non-compliance with the Order based on the good faith bases identified herein is not willful non-compliance with the Order. Finally, the City does not admit the factual findings and legal conclusions in the Order.

I. The Sufficient Cause Defense

- A. Sufficient cause for not complying with a UAO includes a reasonable belief that the UAO is invalid or requires work that is inconsistent with the NCP.

CERCLA permits EPA to seek civil penalties and punitive damages when a party willfully and without sufficient cause fails to comply with an EPA UAO. Specifically, with respect to civil penalties, 42 U.S.C. § 9606(b)(1) states:

(b) Fines; reimbursement

(1) Any person who, without sufficient cause, willfully violates, or fails or refuses to comply with, any order of the President under subsection (a) may, in an action brought in the appropriate United States district court to enforce such order, be fined not more than \$25,000¹ for each day in which such violation occurs or such failure to comply continues.

(emphasis added).

42 U.S.C. § 9607(c)(3), regarding the availability of punitive damages, states:

(c) Determination of amounts

¹ Pursuant to the Civil Monetary Penalty Inflation Adjustment Rule, the current maximum daily penalty, adjusted for inflation, is \$58,328.00.

(3) If any person who is liable for a release or threat of release of a hazardous substance fails without sufficient cause to properly provide removal or remedial action upon order of the President pursuant to section 9604 or 9606 of this title, such person may be liable to the United States for punitive damages in an amount at least equal to, and not more than three times, the amount of any costs incurred by the Fund as a result of such failure to take proper action.

(emphasis added).

CERCLA does not define “sufficient cause” and EPA has not promulgated regulations or issued guidance as to what the term means. *See, e.g. Gen. Elec. Co. v. Jackson*, 595 F. Supp. 2d 8, 19 (D.D.C. 2009), *aff’d*, 610 F.3d 110 (D. C. Cir. 2010) (noting that the EPA’s failure to issue guidance defining “sufficient cause” may be poor policy.”) However, “Circuit Courts of Appeal have interpreted ‘sufficient cause’ to mean a ‘good faith’ or ‘objectively reasonable basis for believing that the EPA’s Order was either invalid or inapplicable to it.’” *Emhart Indus., Inc. v. New England Container Co., Inc.*, 274 F. Supp. 3d 30, 80 (D.R.I. 2017). “A party may meet this standard by demonstrating ‘that the applicable provisions of CERCLA, EPA regulations and policy statements, and any formal or informal hearings or guidance the EPA may provide, give rise to an objectively reasonable belief in the invalidity or inapplicability of the clean-up order.’” *Id.*; *see also United States v. Barkman*, No. CIV. A. 96-6395, 1998 WL 962018, at *17 (E.D. Pa. Dec. 17, 1998), *on reconsideration in part*, No. CIV.A. 96-6395, 1999 WL 77251 (E.D. Pa. Feb. 5, 1999) (“‘Sufficient cause’ has been interpreted to mean that the party had a reasonable belief that it was not liable under CERCLA or that the required response action was inconsistent with the national contingency plan.”). Therefore, sufficient cause exists based upon a reasonable, good faith belief of the invalidity of the UAO (e.g., not in accordance with law or otherwise arbitrary and capricious), the inapplicability of the UAO (e.g., the recipient is not a liable party), or the UAO requires work that is inconsistent with the NCP. Any of these bases establishes sufficient cause not to comply with a UAO.² As set forth below, the City has established sufficient cause not to comply with certain provisions of the Order on these grounds.

² 42 U.S.C. § 9606(b)(1) also requires a “willful violation.” In a case prior to the Superfund Amendments and Reauthorization Act (“SARA”), a court noted that the term “willful” in and of itself provided a defendant with a “good faith” defense:

Section 9606(b) authorizes a district court to award fines against ‘[a]ny person who *willfully* violates, or fails or refuses to comply with, any order of the President under subsection (a)...’ (emphasis added). The key rests with the word ‘willful’ which traditionally is synonymous with bad faith. ... Assuming the inclusion of the willfulness standard, a good faith defense may be read into § 9606(b).

Wagner Seed Co. v. Daggett, 800 F.2d 310, 316 (2d Cir. 1986). The SARA amendment then added the “without sufficient cause” language to the provision.

- B. Sufficient cause also includes “substantial compliance” with a UAO or non-compliance if compliance is impossible.

Courts also acknowledge explicitly that “substantial compliance” and the doctrine of “impossibility” are proper grounds for satisfying the “sufficient cause” defense. In *Employers Ins. of Wausau v. Browner*, the Court stated:

The most difficult case is where the party cannot complete the required action for reasons beyond its control. ... The statute requires compliance with the clean-up order, but compliance need not be a matter of all or nothing. In contract law, substantial compliance with contractual duties is often compliance enough. *Hardin, Rodriguez & Boivin Anesthesiologists, Ltd. v. Paradigm Ins. Co.*, 962 F.2d 628, 636 (7th Cir. 1992); *Jacob & Young's, Inc. v. Kent*, 230 N.Y. 239, 129 N.E. 889 (1921) (Cardozo, J.). The doctrines of impossibility, impracticability, and frustration, which operate as implied terms in contracts, sometimes excuse noncompliance with contractual duty altogether. These familiar defenses, along with a concept of substantial compliance as sufficient when to require more would be unreasonable, could be considered—we need not decide whether they are—implied terms in EPA orders as well.

52 F.3d 656, 664 (7th Cir. 1995).

CERCLA’s legislative history also indicates that “impossibility” qualifies as “sufficient cause.” In the legislative debate concerning the passage of CERCLA, Senator Stafford, one of the bill’s sponsors, engaged in a colloquy on the meaning of “without sufficient cause” with Senator Simpson:

There could also be “sufficient cause” for not complying with an order if the party subject to the order did not at the time have the financial or technical resources to comply **or if no technological means for complying was available.**

(emphasis added) H.R. REP. NO. 1016, 96th Cong., 2d Sess., pt.#1, at 304 (1980) (to accompany H.R. 7020), reprinted in 2 SUPERFUND: A LEGISLATIVE HISTORY 429, 445 (Helen C. Needham ed., 1982). See also J. Wylie Donald, *Defending Against Daily Fines and Punitive Damages Under CERCLA: The Meaning of "Without Sufficient Cause"*, 19 Colum. J. Envtl. L. 185, 193 (1994) (“Second, the Senator listed the lack of financial or technical means as sufficient cause not to comply. Lack of technical means seems noncontroversial. If the cleanup

cannot physically be done, it would be absurd to penalize a party for not doing it.”); Memorandum from Don R. Clay to James M. Strock: Guidance on CERCLA Section 106(a) Unilateral Administrative Orders for Remedial Designs and Remedial Action 15 (Mar. 7, 1990) n. 37, *available at* <https://www.epa.gov/sites/production/files/documents/cerc106-uao-rpt.pdf> (“The technical difficulty of response actions should be considered before issuing unilateral orders.”).

The City satisfies both grounds for establishing a sufficient cause defense. First, the City will not just comply “substantially” with the Order’s substantive CSO work requirements. The City intends to comply fully. The City will design and build the CSO tanks and bulkhead adjacent to the OH-007 tank. Second, meeting the deadlines for design and construction unilaterally imposed by EPA is impossible and impracticable for technological reasons, due to City mandated procurement processes, contracting rules and structures, and for financial reasons as set forth in detail below.

II. The City Has Sufficient Cause For Not Complying With The Order’s Design and Construction Deadlines, Which Are Impossible to Meet for Technical, Contracting and Financial Reasons.

A. The history of the proposed CSO tank schedules demonstrates that the schedule in the Order is arbitrary and capricious.

The schedules for the design and construction of the CSO tanks at RH-034 and OH-007 proposed by the City and EPA provide the starting point for the City’s sufficient cause defense. In December 2018, as part of its presentation to EPA on a potential alternative to the CSO tanks, the City provided EPA with the City’s current schedule for design and construction of the CSO tanks. The schedule reflected two facts: (i) CP-1 (the Site demolition work) for the RH-034 tank would be delayed due to EPA’s determination, along with the State Historic Preservation Office, that brick salvage was required for the façade at 234 Butler Street, and (ii) DEP held off on design work on OH-007, other than the preparation of the draft Basis of Design Report (BODR), performance of preliminary geotechnical investigations, and preparation and issuance of the environmental impact statement (EIS), while EPA considered the Tunnel alternative. Based on these facts, the City’s schedule provided that RH-034 tank construction would be completed by September 30, 2030 and the OH-007 tank construction would be completed by December 31, 2029.³

EPA did not provide any written response to the City’s proposed schedule until November 20, 2020. On that date, EPA proposed a schedule requiring construction completion

³ The City’s proposed schedule contained all of the interim design and construction dates to meet these ultimate construction completion dates. The subsequent schedules submitted by the City did the same.

dates of June 30, 2029 and June 30, 2028 for the RH-034 and OH-007 tanks respectively. EPA's schedule accelerated the construction completion dates provided by the City by 15 months for RH-034 and 18 months for OH-007. EPA offered no technical support for its proposed schedule and no technical comments on the schedule that the City proposed to EPA almost two years earlier.

In response to EPA's proposed schedule, the City diligently evaluated ways to accelerate the schedule despite the intervening delays in CP-1 for RH-034 and for the design of OH-007 while EPA considered the tunnel alternative. Specifically, the City proposed schedule acceleration by (i) limiting built-in risk and uncertainty factors to the City's schedule that are typical and inherent in complex projects of this nature, (ii) proposing extended working hours where appropriate, and (iii) providing a notice to proceed for next stage of work **before** the prior stage of work is completed, a completely unprecedented contracting process for the City. Through this aggressive schedule re-evaluation, on December 7, 2020 the City proposed construction completion dates of August 31, 2030 and June 30, 2029 for the RH-034 and OH-007 tanks respectively. Compared to the proposed schedule the City submitted to EPA in December 2018, this schedule saved one month on construction completion for RH-034 and six months for OH-007, achieved by using unprecedented, costly measures described above, measures that created great financial impacts and risk to the City.

The City provided a detailed presentation to EPA demonstrating the basis for the City's accelerated schedule. Following that meeting, the City also provided EPA with its written Basis of Schedule Reports for each of the RH-034 CSO Tank construction phases, and every assumption that the City used in developing the accelerated schedule. The City's schedule for the OH-007 tank construction is consistent with the final draft BODR, which is a planning document. The design for each the OH-007 CSO Tank CPs and corresponding Basis of Schedule reports will be developed under the OH-007 detailed design contract that was procured in May 2021.

On January 15, 2021, EPA transmitted a new proposed schedule. The schedule proposed construction dates that were not just earlier than the City's revised schedule, but also earlier than **EPA's own schedule** that it had proposed to the City less than two months prior. EPA provided no technical rationale for reversing its own course, and no comments on the City's detailed basis for its accelerated schedule.

To say the least, the City was troubled by EPA's further acceleration of the schedule, especially because EPA had not provided the City with any technical basis for its decision. The City therefore requested a further technical workshop with EPA to address each milestone date in EPA's latest schedule. The City also requested a copy of any technical evaluation performed by EPA or its consultant in advance of the workshop, but none was provided.

The workshop was held on January 29, 2021. During that workshop, EPA's consultant stated for the first time that EPA's schedule was based on several other projects the consulting firm had worked on. The consultant provided two-sentence descriptions of each of these projects at the workshop, and to this day neither EPA nor the consultant has provided the City with any detailed information concerning them.

That said, based on even the limited descriptions that were provided to the City at the workshop, the projects are wholly incomparable to the RH-034 and OH-007 CSO Tank projects. For example, the Lower Harbor Brook Facility in Onondaga, New York is located in a suburban area, with wide open space for staging laydown and construction support, requires minimal piping because the interceptor sewer is right in front of the tank and includes no screening or grit removal. Similarly, the Truman School CSO tank in New Haven, Connecticut has no head house, no odor control and no screening grit removal, and is located on an open lot with no significant site preparation or demolition work required. It is simply a tank with a submersible pump for dewatering. Finally, the Strategic Tunnel Enhancement Program Pumping Station in Abu Dhabi, UAE is not even a CSO tank. The geotechnical conditions are far more favorable for construction, it is not located in an urban area, and it has plenty of staging and laydown space. It also would presumably not have the procurement and labor requirements that the City must satisfy. And none of these other projects required a CERCLA remediation on the very site where the tanks were constructed.

On March 29, 2021, with no further technical discussion with the City, EPA issued the Order with a scheduled completion date for RH-034 of March 31, 2029 and for OH-007 of May 1, 2028. The completion for RH-034 is 17 months earlier than the City's schedule, which the City demonstrated is the earliest achievable completion date, and three months earlier than the date EPA itself proposed in November 2020. The Order's completion date for OH-007 is May 1, 2028, 13 months earlier than the earliest achievable date demonstrated by the City, and two months earlier than the date EPA itself proposed in November 2020.

The above chronology demonstrates that the schedule imposed by EPA in the Order (i) contradicts EPA's own prior proposed schedules, (ii) lacks any technical support, and (iii) relies upon other projects' schedules that are not comparable or relevant to the design and construction schedules for the complicated, urban construction work necessary for the RH-034 or OH-007 tanks at a CERCLA site. The Order's schedule is therefore arbitrary and capricious and the City has sufficient cause not to comply with it.

- B. The process used by the City to develop its schedule was rigorous, consistent with industry standards and demonstrates that no earlier dates are achievable.

The City followed a rigorous process to develop achievable schedules for the RH-034 and OH-007 CSO tanks based on industry standards, professional engineering judgment,

practical experience from other City CSO tank projects, and lessons learned from other complex construction projects in urban environments with tight site constraints.

The City has completed the procurement of an engineering consultant contract to provide planning, permitting, detailed design, assistance during bidding, design services during construction, and startup assistance for the 8 million gallon tank at RH-034 and for the 4 million gallon tank at OH-007.

For both efforts, this work is being performed by Hazen and Sawyer and Brown and Caldwell with support from several specialty consultants. Separate engineering consultant contracts will be solicited for the construction management (CM) of this work. As the construction work packages are fully developed by the design consultant to the 100% design level of completion, the City will procure services for the CM (beyond RH-034 CP-1, which has a CM procured) and construction contractors to implement the work.

For both the RH-034 and OH-007 CSO tanks, the City has established three design/construction work packages at each site:

Construction package 1 (CP-1) is a site preparation contract. This contract will demolish existing structures on sites, disconnect and/or relocate any in-service utilities, and provide a secure site perimeter for work that will follow. For RH-034, an additional site preparation contract has been added – CP-1A – site preparation for the Parcel I contractor staging area, distinct from the site prep contract focused on the future site of the tank, headhouse, and public amenities at Parcels VI and VII.

Construction package 2 (CP-2) includes most of the belowground work. It includes construction of the support of excavation, the excavation, stabilization, and disposal of soils, and construction of the foundation for the facility.

Construction package 3 (CP-3) includes aboveground construction on the facility itself as well as the conveyance necessary to integrate the facility with DEP's infrastructure.

As part of the design consultant's scope of work for the RH-034 and OH-007 contracts, schedules have been developed by the project team. As detailed below, the durations for each CP have been developed based on current information available and the level of engineering completeness for each of the CSO tank projects. In the case of RH-034, the schedules are based on detailed engineering from the 90% design for each CP. The OH-007 schedule is based on the Final Draft Basis on Design Report (May 2018).

In developing these schedules, the project team was comprised of experienced and well-regarded engineering firms and individuals who have engineered and delivered numerous CSO tank facilities similar to the planned RH-034 and OH-007 facilities across the United States and who have extensive familiarity with the construction phasing, sequencing, and challenges with similar facilities. The lead scheduler, Tom Zakrzewski, the Project Controls Manager for RH-034 and OH-007, was previously the Scheduling Engineer for the DEP's Paerdegat Basin CSO Facility located in Brooklyn, NY. Paerdegat is one of several of DEP's CSO tanks in operation, and it was constructed using a similar phased CP approach and comparable construction techniques/elements (such as a slurry wall, cast-in place concrete, pump back facilities, and odor control). The schedules developed and presented in the Basis of Schedule Report and summarized below draw upon that experience. Further, the City integrated a new subconsultant, NASCO, to the project in 2018 with separate expertise in cost and schedule controls. Upon retention, the new subconsultant conducted a detailed bottom-up review of the RH-034 construction schedules. Notably, its findings aligned directly with those that the core project team that had been advancing since 2016.

Additionally, the construction schedules are based on the unique considerations and rules governing construction and its associated impacts in the City as well as the challenges of working in an ultra-urban environment, all of which can significantly impact production rates and site deliveries. The February 22, 2018 Environmental Impact Statement (EIS) developed for this project identifies these challenges and the commitments the City must satisfy for this project. EPA was provided a copy of the EIS and provided no comments thereon. Specifically, the EIS codifies many of the City's environmental commitments which must be followed during the construction program with respect to working hours, noise, odors, dust, traffic control through defined mitigation activities. Therefore, as discussed above, comparisons to scheduled durations or construction costs from other municipalities must be adjusted due to the unique characteristics of performing work in the City both in terms of the physical environment (density of construction, limited laydown/staging area, complexity of subsurface construction given volume of competing utilities) and legal environment (Standard City construction contract, the City MWBE requirements (limitations on work hours and work days, etc.), including commitments in the EIS.

It is also important to note that although the City's one-year timeframe for procurement of construction contracts may be considered long when compared to other municipalities or the private sector, the City's schedule provides for starting all procurement as early as possible and in parallel with the preceding construction contract where possible. In addition, the City's schedule also assumes that the notice to proceed for each subsequent contract will be issued prior to the end of the preceding contract (3-6 months depending on the particular CP) in order to remove the preparation and approval of submittals, and material procurement from the overall construction critical path. The City incorporated this procedure in order to accelerate the schedule as much as possible, even though it creates additional risk to the City in the event that

completion of the preceding contract is delayed for any reason. In other words, the City would be liable for payments under the succeeding contract even when no work commenced if the preceding contract had not yet been completed. For that reason, the procurement process the City has developed for this project is extremely aggressive, risky and unprecedented.

1. The basis of schedule for RH-034

This section describes and presents the scope of work, approach and assumptions used to develop the Critical Path Method (“CPM”) construction schedules for the RH-034 CSO tank that have been previously shared with EPA. Four CPs have been established for the construction of the RH-034 tank: CP-1 (site preparation of tank site); CP-1A (site preparation of contractor laydown/staging area); CP-2 (belowground work); and CP-3 (aboveground work). A Basis of Schedule report has been submitted to DEP for each CP at each design phase (30%, 60%, and 90%); additional detail on the schedules can be found in those reports, including the detailed construction schedules utilizing the CPM of scheduling. Primavera P6 Professional, Version 16.1, software was utilized to prepare the individual schedules that are summarized herein.

The Order does not include dates for CP-1 procurement, CP-1 start construction, CP-1 complete construction, CP-2 procurement, or CP-2 start construction. However, the City’s current anticipated dates for those milestones are presented and discussed below in order to provide a comprehensive schedule for the entire RH-034 construction program.

The schedules presented for RH-034 were developed using the following documents / information:

- 90% Design Drawings & Specifications
- 90% Cost Estimate
- Input from DEP
- Input from Project Team, Industry Professionals, and Experienced Contractors
- Applicable DEP Standard Operating Procedures (SOPs)
- AACE Recommended Practices (RPs)
- Lessons learned from similar projects that have already been completed.

a. Construction schedule: CP-1 site preparation.

The table below provides the City’s schedule developed for CP-1:

Table 1. CP-1 Site Preparation				
	Phase	Start	Finish	Duration (months)

Table 1. CP-1 Site Preparation				
	Phase	Start	Finish	Duration (months)
City	Procurement	11/15/2020	10/1/2021	10.5
City	Construction	10/1/2021	12/31/2022	15

The critical path for the CP-1 scope of work consists of disconnecting existing utilities, removal of hazardous equipment, hazardous materials abatement in structures, demolition of structures with preservation of available brick, backfilling to grade and installation of a perimeter fence around the property. This work is estimated to cost approximately \$20 million.

This critical path is inherently sequential in nature, which presents minimal opportunities for concurrent work that could potentially accelerate completion. Disconnecting utilities prior to demolition is imperative from a health and safety perspective, and abatement of hazardous materials is needed so necessary precautions are taken before potential asbestos and other hazardous materials are disturbed during demolition, which would lead to greater exposure risk for contractors and the surrounding community. The process of preserving ~80 year old brick is intricate and time-consuming, as there is limited on-site supply and EPA has required maximizing the redeployment of existing brick rather than using faux-aged brick that is a visual match. In isolation, the brick issue adds three months to the CP-1 schedule and eventual commissioning of the CSO facility.

Factors that complicate the CP-1 schedule include:

- Approval from the City's Department of Buildings (DOB) Construction Safety Compliance Group (CSCG, formerly BEST Squad) approval will be required before demolition can begin. Coordination with DOB has been initiated and taken as far as possible prior to Contractor selection and notice-to-proceed.
- Significant regulated material abatement (asbestos, lead, PCBs) is required in the existing ~80-year-old buildings.
- There is the potential that additional USTs and abandoned utilities, and historical / archeological artifacts will be discovered during the work (allowances have been included in CP-1, but could increase in scope and duration).
- The City must conduct brick-by-brick demolition of the 234 Butler Street and Nevins Street building facades until approximately 38,900 bricks are preserved. This scope requires employment of a Conservator to oversee this work.

Schedule assumptions for CP-1 are as follows:

- All buildings at both locations are assumed to have the same level of hazardous material contamination.

The following crew sizes were used in developing the schedules:

- Electrical Demolition – 4 to 6 person crews.
- Mechanical/Utility Demolition – 2 to 4 person crews.
- Building Demolition – 10 to 15 person crews.
- Hazardous Material Abatement – 10 to 15 person crews.
- Site Work / Restoration – 4-to-8-person crew.

b. Construction schedule: CP-1A site preparation

The table below presents the DEP schedule developed for CP-1A:

Table 2. CP-1A Site Preparation				
	Phase	Start	Finish	Duration (months)
City	Procurement	1/1/2021	12/31/2021	12
City	Construction	1/1/2022	12/31/2022	12

The scope of work for CP-1A consists of similar activities as CP-1 – disconnecting existing utilities, removal of hazardous equipment, hazardous materials abatement of structures, backfilling to grade and installation of a perimeter fence around the property. This work is estimated to cost approximately \$12 million.

CP-1A lacks a brick preservation component which drives the shorter construction duration as compared to CP-1. That said, as with CP-1, several logistical constraints limit the City's ability to accelerate construction because the work is inherently sequential in nature. Demolishing a structure necessitates disconnecting utilities and abating legacy materials prior to the physical deconstruction of the structure.

Factors that complicate the CP-1A schedule include:

- Approval from the City's DOB CSCG is required before demolition can begin – only controlled demolition is allowed. Coordination has been initiated for CP-1 and will be expanded to include CP-1A.
- The work entails significant steel and concrete demolition, along with required separation / recycling and landfill waste diversion.
- Significant regulated material abatement (asbestos, lead, PCBs) required in ~70-year-old building.

The following crew sizes were used in developing the schedules:

- Electrical Demolition – 4 to 6 person crews.
- Mechanical/Utility Demolition – 2 to 4 person crews.
- Building Demolition – 10 to 15 person crews.
- Hazardous Material Abatement – 10 to 15 person crews.
- Site Work / Restoration – 4-to-8-person crews.

c. Construction schedule: CP-2 below-groundwork

The table below presents the City's schedule developed for CP-2:

Table 3. CP-2 Belowground Work				
	Phase	Start	Finish	Duration (months)
City	Procurement	4/1/2021	9/30/2022	18
City	Construction	10/1/2022	6/30/2027	57

The scope of work for CP-2 consists of a groundwater/construction water treatment system; on-site slurry production; support of excavation (SOE) slurry T-wall panels installed approximately to 200 foot depth to bedrock to create a watertight bathtub; excavation, stabilization and off-site disposal of contaminated soils (105,000 cubic yards); subsurface structural construction (tie downs, base slab, tank walls, top slab); influent/effluent structures

to/from tank to RH-034 regulator; and jet grout mat at base of influent/effluent structures. This work is estimated to cost approximately \$390 million as of 90 percent design.

Factors that complicate the CP-2 schedule include:

- Limited construction staging / support area.
- SOE construction adjacent to unlimited source of water (Canal).
- Poor and challenging geotechnical conditions as demonstrated by current building settlement issues.
- Fulton MGP bulkhead/cutoff wall deadmen and structural support features (designed and constructed by National Grid, approved by EPA) within 10 feet from edge of SOE. These features must be protected during construction. For example, weight limits are now imposed in the area between the bulkhead and SOE, 600 psf effectively reducing the total area available to support the construction due to Fulton MGP bulkhead/cutoff wall design.

As with CP-1 and CP-1A, the work is inherently sequential, with limited opportunity to advance on parallel fronts in series. Having an operational Construction Water Treatment System (CWTS) prior to subsurface construction is essential to achieving discharge requirements necessitated both by permit and in the environmental review process. The construction of the SOE – essentially, a watertight bathtub – must precede the removal activity for any excavation to proceed at an acceptable production rate unencumbered by infiltration. Once the SOE is in place, the removal activity will proceed with one truck being prepped, filled with stabilized soils, decontaminated, and hauled off site every 12 minutes, for up to ten hours a day for 229 workdays. Only once the removal activity is complete can concrete be poured for the structural base slab of the tank and structures.

DEP schedule assumptions for CP-2 are as follows:

- SOE
 - Tank SOE T-panel construction is estimated to require 305 workdays. This assumes two fronts, with an average excavation rate of 10 yd/hr and concreting rate of 95 yd/hr (10+ trucks/hr) per front.
 - Due to the excavation depth and volume of concrete required for the slurry wall panels, construction of the slurry wall SOE is anticipated to work a 10-hour shift, 5 days a week.

- 10-hour days for SOE / Conveyance / Excavation Work Activities.
- Removal Activity
 - 105,000 cubic yards of soils are estimated for removal (includes soil stabilization additives and expansion factor due to excavation). This assumes one truck being loaded every 12 minutes (229 workdays, 370 yds/d).
 - An estimated 1,200 piles will be removed as part of the CSO tank excavation activity. This assumes removal of 3 piles per hour.
 - Truck loading will take place 8 hours per day.
 - Trucks also need to be weighed in, queued, loaded, decontaminated, etc.
 - Large influent and effluent conduit construction is required.

EPA's schedule duration is 9 months shorter than the City's schedule. EPA's duration does not appropriately account for the complex and difficult construction required for the support of excavation, and does not provide for reasonable average productivity rates for the significant volumes of soil to be excavated, and concrete foundations to be poured.

d. Construction schedule: CP-3 aboveground work

Table 4. CP-3 Aboveground Work				
	Phase	Start	Finish	Duration (months)
City	Procurement	1/1/2026	12/31/2026	12
City	Construction	1/1/2027	8/31/2030	44

The scope of work for CP-3 consists of the construction of the significant CSO facility superstructure enclosure and architecture (24,300 square feet in total), installation of process mechanical and electrical equipment, start-up / testing, facility commissioning and construction of new sewer conveyance within Nevins Street to pick up adjacent overflows. This work is estimated to cost approximately \$240 million as of 90% design (i.e., prior to integrating the SHPO MOA requirements for the reconstruction of the 234 Butler Street facades in place).

As with preceding construction packages, the work is highly sequential. The building must be physically constructed and waterproofed before process mechanical equipment can be

installed. Once process mechanical equipment (pumps, screens, grit classifiers, etc.) is physically in place, it must be connected electrically, which is needed to test and commission equipment. Supporting disciplines such as HVAC fans and ducts must also be installed (and wired) for the facility to operate in accordance with operational feedback and environmental commitments.

Factors that complicate the CP-3 schedule include:

- The above-ground elements are a complex facility with significant equipment, conduit, and wiring.
- The construction is based on over 2,100 contractor submittals, approximately 35 large systems and witness tests and over 1,030 individual shop drawings.
- CP-3 involves significant procurement and installation of complex equipment/systems.
- CP-3 requires significant start-up and testing effort for facility commissioning.
- CP-3 cannot proceed until there are completed and accurate as-built drawings from CP-2 (~230 drawings).
- CP-3 requires an additional Sewer Conveyance path ~3 months off critical path (headhouse structure and process mechanical). This conveyance path is less likely to be able to be accelerated given the complexity of underground utilities and requirement to capture/convey other CSOs.

EPA's schedule is nearly 1 year shorter than the City's schedule. EPA's schedule does not provide sufficient time to construct the building enclosure, nor account for the significant complex construction required to procure, install, start up and test each individual system, nor the facility as a whole.

2. The basis of schedule for OH-007

This section describes and presents the scope of work, approach and assumptions used to develop the CPM construction schedules for the OH-007 CSO tank that have been previously shared with EPA. The schedules are based on the draft BODR from May 2018. The OH-007 schedules also rely on the information and knowledge gained from the advancement of the RH-034 design schedules and construction of the Paerdegat CSO Facility.

Similar to RH-034, the City envisions three CPs for the construction of the OH-007 tank: CP-1 (site preparation of tank site); CP-2 (belowground work); and CP-3 (aboveground work).

a. BODR: CP-2 and CP-3

Before proceeding with the detailed design of CP-2 and CP-3 DEP, the design engineer must update and validate the May 2018 draft BODR that was prepared for the OH-007 Tank under a separate contract. The draft BODR must be reviewed to account for any changes in codes or standards, incorporate coordination with the OH bulkhead design (design completed December 2020), and capture any changes in operator preferences and other design changes that were implemented at the RH-034 Tank Design. The City proposed four months for this task. The Order requires that the Work be completed in three months, which will not be enough time to present and discuss the changes noted above to the operating bureaus and other stakeholders, conduct the required workshops, solicit feedback and prepare responses, and finalize and issue the updated BODR report.

b. Construction schedule: CP-1 site preparation

Table 6. CP-1 Site Preparation				
	Phase	Start	Finish	Duration (months)
City	Design	6/1/2021	6/30/2022	13
City	Procurement	7/1/2022	6/30/2023	12
City	Construction	7/1/2023	9/30/2024	15

Similar to the RH-034 CP-1, the design effort requires assessments and investigations of existing structures on adjacent private property in order to prepare design for demolition and abatement of regulated materials (50-70 year old buildings). The scope of construction phase of work for CP-1 consists of many of the same elements as the RH-034 CP-1 work including disconnecting existing utilities, removal of hazardous equipment, hazardous materials abatement of structures, demolition of structures, backfilling to grade and a perimeter fence around the property. The construction period also accounts for construction of new temporary facilities for Department of Sanitation (DSNY), relocation of DSNY, then demolition of the existing DSNY facility. This work is estimated to cost approximately \$15 million as of the draft BODR.

Some of the factors that complicate the CP-1 schedule include:

- Second Avenue Pump Station must remain in service through CP-1, CP-2 and much of CP-3, including BWT access.
- The DSNY facility must remain operational, especially during winter months (critical to public health and safety). Planning is needed to relocate the Salt Shed

South of 5th Street before decommissioning the existing structure and relocation cannot be conducted until structures south of 5th Street are cleared.

- There has been no access to date to perform building assessments for scope of demolition and hazardous / regulated materials abatement (different than RH-034 which featured extensive pre-design investigation (PDI) and site inventory of a Conservator to oversee this work).

The schedule in the Order is one month shorter than the City's proposed schedule of 13 months to complete the CP-1 design and is not achievable due to the need to access, inspect and assess the private properties and buildings south of 5th street. The conditions of those buildings and the required designs to abate regulated material and demolish them are unknown. Similarly, the schedule in the Order for CP-1 construction is 3 months shorter than DEP's proposed schedule of 15 months, and is not achievable because of the potentially significant remediation / removal of regulated materials required prior to demolition. In addition, EPA's schedule does not account for the need to maintain DSNY operations throughout the CP-1 construction, which requires demolition of the existing buildings south of 5th Street, construction of new temporary DSNY facilities, relocation of DSNY operations to the new facilities, and then demolition of the existing DSNY facilities in a sequential manner.

c. Construction schedule: CP-2 below-groundwork

The table below presents the City's schedule developed for CP-2.

Table 7. CP-2 Belowground Work				
	Phase	Start	Finish	Duration (months)
City	Design	10/1/2021	9/30/2023	24
City	Procurement	1/1/2023	6/30/2024	18
City	Construction	7/1/2024	8/31/2027	38

Similar to the RH-034 CP-2, the scope of the design and construction for OH-007 will consist of a groundwater/construction water treatment system; on-site slurry production; support of excavation (SOE) slurry T-wall panels installed approximately to the depth to bedrock to create a watertight bathtub; excavation, stabilization and off-site disposal of contaminated soils; subsurface structural construction (tie downs, base slab, tank walls, top slab); influent/effluent structures to/from tank; and jet grout mat at base of influent/effluent structures. This work is estimated to cost approximately \$227 million as of the draft BODR.

Factors that complicate the CP-2 schedule include:

- Additional geotechnical and environmental borings required to support SOE design.
- Remediation requirements are currently undefined.
- Irregular parcel (triangular, not rectangular) adds constraints/ limits working fronts, with access only from the south.
- Dead end street poses access and logistical challenges.
- CP-2 must maintain 2nd Avenue Pumping Station existing outfall structures.
- CP-2 requires shared site access (5th street) for construction work and vehicles and DSNY.

EPA's schedule duration for CP-2 design is three months shorter than the City's schedule and is not achievable. EPA's duration does not appropriately account for the performance of the geotechnical and environmental boring/sampling program necessary to inform the design, nor does it appropriately account for the complex nature of the design due to the unique characteristics of the site such as the limited staging, proximity to the bulkhead/Canal, and high groundwater.

EPA's schedule duration for CP-2 construction is seven months shorter than the City's schedule and again is not achievable. EPA's duration does not appropriately account for the complex and difficult construction required for the support of excavation, especially in close proximity to the Canal, and does not provide for reasonable average productivity rates for the significant volumes of soil to be excavated, and concrete foundations to be poured.

d. Construction schedule: CP-3 aboveground work

The table below presents the City's schedule developed for CP-3:

Table 8. CP-3 Aboveground Work				
	Phase	Start	Finish	Duration (months)
City	Design	10/1/2021	12/31/2023	27
City	Procurement	4/1/2026	3/31/2027	12
City	Construction	4/1/2027	6/30/2029	27

Similar to RH-034 CP-3, the scope of the design and construction design for OH-007 CP-3 will consist of the CSO facility superstructure enclosure and architecture, installation of process mechanical equipment, start-up / testing, facility commissioning and conveyance construction. Additionally, the 2nd Ave Pumping Station will be replaced. This work is estimated to cost approximately \$95 million as of the draft BODR.

Factors that complicate the CP-3 schedule include:

- CP-3 design requires significant coordination and approval by BWT, and other internal DEP stakeholders.
- CP-3 is a complex facility with significant equipment, conduit and wiring.
- CP-3 requires significant start-up and testing effort for facility commissioning.
- Complete and accurate as-built drawings from CP-2 are necessary to allow for early CP-3 activities.

EPA's schedule duration for CP-3 design is three months shorter than the City's schedule and is not achievable. EPA's schedule does not account for the evaluation of, iteration through, presentation of, and review of the design with the City's technical and operating staff, and other stakeholders, which is critical for the delivery of the design of such a complex facility.

EPA's schedule duration for CP-3 construction is three months shorter than the City's schedule and again is not achievable. EPA's schedule does not provide sufficient time to construct the building enclosure, nor does it account for the significant complex construction required to procure, install, start up and test each individual system and the facility as a whole.

The information detailed above demonstrates the technological and procurement requirements that make EPA's schedule in the Order arbitrary and capricious. The City has thoroughly and painstakingly documented why its proposed schedule is the most aggressively achievable schedule. Accordingly, the City has sufficient cause not to meet EPA's milestones. Simply stated, the City cannot perform the impossible. The City will perform the CSO and bulkhead work under the Order, but has sufficient cause not to comply with the Order's unilaterally imposed and unachievable deadlines.

- C. Financial reasons demonstrate that the City has sufficient cause not to meet EPA's unilaterally imposed design and construction schedules.

In addition to these technological and procurement bases for the City's sufficient cause defense regarding the Order's schedule, the City also has sufficient cause not to comply with the Order schedule due to financial constraints. Cost is an NCP Criterion. The City and DEP continue to face a period of significant fiscal uncertainty directly caused by the ongoing COVID-19 pandemic. Compounding these issues is the financial hardship confronting many New Yorkers across the City and State. DEP expects substantial financial impacts on ratepayers related to the projected parallel schedules for multiple large State and Federal mandated projects including, but by no means limited to, the Gowanus Canal CSO Tanks. DEP is seeking to logically plan these projects in light of ratepayer financial burdens and critical needs of existing infrastructure. On their own, the costs of the CSO tanks, which are far greater than forecasted in the Record of Decision⁴ (without EPA issuing an Explanation of Significant Differences to explain its forecasting error, let alone account for the newly mandated services set forth in the Order), will require ratepayers to bear a significant financial burden. Now, the schedule for the mandates of the Order will require DEP to prioritize the CSO tanks over, and thereby delay, other projects that would benefit a larger number of customers, serve a larger service area, or address time critical system needs, such as upgrading or replacing aging core system assets. Further, the City faces ongoing fiscal uncertainty, due to the continued reduced level of economic activity in, and travel to, the City. The uncertainty makes it difficult for the City to estimate its revenues or cash position, in addition to creating uncertainty around expected construction costs, debt market conditions, and other variables important to accurate long-term financial planning.⁵

III. The City Has Sufficient Cause For Not Complying With Paragraphs 73.a., 73.c. And 73.d. Of The Order Because The Requirements Of Those Paragraphs Are Inconsistent With The ROD And The NCP, Beyond EPA's Authority Under CERCLA And Otherwise Legally Invalid.

- A. The Order's requirements regarding treatment units for separate storm sewers, sampling and reporting related to these treatment units, and separating stormwater are not part of the CSO remedy selected in the ROD and are inconsistent with the NCP.

⁴ The ROD estimated the costs for both CSO tanks at approximately \$78 million. The Order now seeks financial assurance of \$1.1 billion to construct these tanks. Order at ¶50.

⁵ In paragraph 50 of the Order, EPA states that the City, in the Administrative Settlement Agreement and Order for Remedial Design, Removal Action and Cost Recovery, Index No. CERCLA-02-2016-2003 for the Gowanus Canal Site (the "City Consent Order"), waived its right to claim financial inability to comply with certain aspects of the RH-034 tank project. That waiver does not apply to the OH-007 tank, which is not subject to the City Consent Order.

Paragraphs 73.c. and d. of the Order, as amended by EPA's June 29, 2021 letter, provide in part as follows (EPA's revisions shown in redline):

c. Stormwater Controls: Beginning upon the Effective Date of this Order, Respondent shall ensure appropriate implementation of applicable City regulations for sewer connections (Chapter 31 of Title 15 of the Rules of the City of New York) and stormwater control regulations and standards, as set forth in the ROD, ~~at minimum,~~ and as may be updated in City regulations and guidelines, for project plan approvals within the Gowanus Canal sewershed, to ensure that hazardous substances and solids from additional stormwater and sewage loads do not compromise the effectiveness of the remedy, and the permanent CSO control measures by exceeding their design capacity. ~~See ROD at page 85.~~ When implementing or approving municipal sewer infrastructure upgrades which discharge to the Gowanus Canal, and/or private stormwater controls ~~within the Gowanus Canal sewershed along the banks of the Canal~~, stormwater shall be separated ~~for discharge to the Gowanus Canal~~ to the maximum extent practicable, and such stormwater discharges shall be treated pursuant to paragraph 73.d below.

d. Separated Outfall Treatment Units: Beginning upon the Effective Date of this Order, Respondent shall install, operate and maintain EPA-approved treatment units at all newly constructed or upgraded City-owned separated stormwater outfalls, including street end discharges, at the ~~s~~Site. Respondent shall continue to operate and maintain any existing treatment units previously installed at City-owned separated storm water outfalls at the site. Respondent shall require the installation, operation, and maintenance of treatment units at all privately owned separated stormwater outfalls at the site that are ~~owned by or~~ approved by Respondent after the Effective Date and are not otherwise covered by a NYSDEC discharge permit. ~~These~~ treatment units required by this subparagraph shall ~~should~~ have the capacity to effectively separate oil contamination and capture solids from stormwater runoff, prior to discharging to the Canal.⁶ The responsibility to

⁶ There is no standard in the Order, the ROD or any other document for capture of solids or effectiveness of separation of oil contamination from separate sewer discharges. See footnote 10 *infra*.

install, operate and maintain EPA-approved treatment units at ~~all~~ separated stormwater outfalls discharging any stormwater from City-owned property or streets may be delegated to private property owners as part of redevelopment plan approvals, but Respondent shall track, oversee and remain responsible for such Work.

As reflected by the language in paragraphs 73.c. and 73.d., these requirements apply to separate storm sewers owned by the City currently and in the future, and those owned by unrelated parties. Paragraphs 73.c. and 73.d. further provide that even for third-party owned storm sewers connections, the City remains responsible for separating stormwater and for maintaining and monitoring the required treatment units.

While the ROD includes some of the language from paragraphs 73.c. and 73.d. in describing general engineering controls, in the context of addressing sewage loads, paragraphs 73.c. and 73.d. of the Order would impose requirements that do not appear anywhere in EPA's remedy selection process for the Gowanus Canal. They do not appear in any of the alternatives analyzed pursuant to the NCP in the Feasibility Study prepared by EPA, nor do they appear at all in the Feasibility Study Addendum EPA published with the ROD. They do not appear in the evaluation and selection of the preferred remedy set forth in EPA's Proposed Plan for the Site. And, in the final ROD issued by EPA, they are not listed in any of the alternatives evaluated as part of the final selected remedy.

The only references to separated sewers in the ROD, which in large part contain similar language, are as follows⁷:

Current and future high density residential development along the banks of the Canal within the sewershed would need to adhere to NYC rules for sewer connections (Chapter 31 of Title 15 of the Rules of the City of New York) and be consistent with recently adopted NYC criteria for on-site stormwater control and green infrastructure (NYCDEP, 2012) so as to ensure that hazardous substances and solids from additional sewage loads do not compromise the effectiveness of the permanent CSO control measures by exceeding their design capacity. Separated stormwater outfalls may also require source controls pursuant to

⁷ The ROD summary, at iii, contains similar language to the statements in the body of the ROD:

Implementation of appropriate engineering controls to ensure that hazardous substances and solids from separated stormwater, including from future upland development projects, are not discharged to the Canal.

applicable SPDES permits and best management practices. In particular, such separated stormwater outfalls would need to utilize appropriate engineering controls to minimize the discharges of hazardous substances and solids.

ROD at 56.

Also:

Site management controls relating to future sewer capacity would be necessary to maintain the effectiveness of the CSO measures. Specifically, controls would be utilized to ensure that current and future high-density residential development projects along the banks of the Canal and within the sewershed would be constructed consistent with NYC guidelines (NYCDEP, 2012) so as to not exceed control capacity therefore avoiding the contribution of new sewerage discharges to the canal that could compromise the remedy. Separated stormwater outfalls may also require discharge treatment controls.

ROD at 72.

And:

Current and future high density residential redevelopment along the banks of the canal and within the sewershed shall adhere to NYC rules for sewer connections (Chapter 31 of Title 15 of the Rules of the City of New York) and shall be consistent with current NYCDEP criteria (NYCDEP, 2012) and guidelines to ensure that hazardous substances and solids from additional sewage loads do not compromise the effectiveness of the permanent 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. Pilot projects supported by federal and City grants are currently under way for the control of street runoff along the Gowanus Canal using green street ends.

Id. at 85.

On their face, these aspirational statements in the ROD in no way constitute a remedy selection. They speak in terms of general engineering controls, pilot studies and green infrastructure. They focus primarily on sewage loads, not stormwater. Nowhere do they discuss or evaluate specific treatment technologies or performance standards for storm water flows. And most importantly, the statements lack any remedy evaluation, as is required for the selection of any remedy, consistent with the NCP. There was no screening of various engineering controls, no evaluation or comparison of remaining engineering controls against the nine NCP criteria, including the threshold criteria of overall protectiveness and compliance with ARARs. 40 C.F.R. § 300.430.

One additional fact further demonstrates that EPA did not select any treatment remedy for separate storm sewers in the ROD, let alone do so consistently with the NCP. The NCP requires EPA to identify any significant changes to the remedy that were made after publication of the Proposed Plan and before issuance of the ROD. 40 C.F.R. § 430(f)(3)(ii). As stated above, no document prior to the ROD included any remedy evaluation for separated storm sewers. In the section of the ROD entitled Documentation of Significant Changes, there is no mention of any remedy for separated storm sewers. ROD at 93-94. Therefore, in EPA's own words, that remedy was not evaluated upon issuance of the Proposed Plan nor identified as a significant change in the ROD.

Proper remedy selection relating to storm sewers is particularly important because storm sewers are independently regulated under the Clean Water Act. For that reason, EPA has long advised coordination between these two programs. By skipping remedy selection for storm sewers as part of the Gowanus Superfund Site, EPA has created potential inconsistencies and conflicts between these programs. Simply stated, the requirements in paragraphs 73.c. and 73.d. of the Order are not consistent with the ROD nor the NCP and therefore are invalid. Accordingly, the City has sufficient cause not to comply with the requirements in that portion of the Order.

On a related note, paragraph 50 of the Order states that in the City Consent Order, the City waived its right to challenge "the CSO remedy." Order at ¶50. While there are explicit exceptions to that waiver, the exact language of the City Consent Order is as follows:

Respondent waives and agrees not to assert any claims, causes of action, defenses or challenges relating to the **selection** of the **CSO controls** in the September 27, 2013 ROD, including the costs attributable to the design and construction of the RH-034 tank at the Canal-side Property rather than the Park Property and the concurrent design of the RH-034 tank for the Park Property.

(emphasis added). City Consent Order at ¶104.

The waiver is explicitly limited to claims, causes of action, defenses or challenges relating to the **selection of CSO controls**. By definition, separate sewers are not CSOs and control of separate sewers and storm discharges, as required by paragraphs 73.c. and 73.d. of the Order, are not CSO controls. Moreover, in the ROD, EPA did not select a remedy for treatment of the discharges from separate storm sewers. Therefore, the City has not waived its right to challenge any remedy selection for separate sewers, including without limitation, a challenge on grounds that imposition of a remedy for separate storm sewers was not made consistently with the NCP.

Paragraph 73.c. of the Order also includes additional requirements that are not part of the ROD. Paragraph 85 of the ROD applies by its terms only to regulation of “additional sewage loads.” In contrast, in paragraph 73.c. the Order imposes those requirements on “stormwater and sewage loads.”

- B. The Order’s requirements regarding EPA approval of property locations proposed to be used in connection with the construction of the OH-007 Tank (§ 73.a.) and enforcement of City’s regulations (§ 73.c.), are beyond EPA’s authority under CERCLA and invalid.
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Paragraph 73.a. of the Order, as amended by EPA’s June 29, 2021 letter, provides as follows (EPA’s revisions shown in redline):

- a. Respondent shall construct the RH-034 Tank and OH-007 Tank following EPA approval of the 100% designs for each respective tank, in accordance with those designs and within the time frames set forth in Appendix B. Any ~~property acquisition~~ locations proposed by Respondent to be used in connection with ~~for~~ the construction of the OH-007 Tank shall be subject to EPA approval, and whatever access or property interest is needed for those EPA-approved locations shall be obtained by Respondent ~~shall be completed~~ so as to meet the time frames set forth in Appendix B.

The federal government lacks authority to approve property acquisition by a local government, or to mandate that the City obtain access to any property.⁸ The City has the right under Article IX § 1(e) of the New York State Constitution “to take by eminent domain private

⁸ This requirement is also inconsistent with paragraph 89 of the Order, which merely requires the City to use best efforts to obtain access, and indeed provides that “EPA may use its legal authorities to obtain access for Respondent.”

property within [its] boundaries for public use....” As the City exercises the power of eminent domain pursuant to State authorization, the City is, as a political subunit of the State, exercising the State’s eminent domain power – which is one of the State’s inherent sovereign powers. EPA’s assertion of authority over the City’s exercise of eminent domain would be tantamount to an impermissible federal interference with a state’s sovereign powers. *See, e.g., Superintendent of Public Works v. Paonesso*, 14 Misc. 2d 787, 790 (County Court of New York, Niagara County 1958) (“The Federal statute of eminent domain [the Federal Power Act] merely gives to a licensee that does not have the power of eminent domain such a right but it is not intended to interfere with the power of eminent domain already existent in a State agency and the State does not surrender such power of eminent domain by the acceptance of a license.”); *Long Island Water Supply Co. v. Brooklyn*, 166 U.S. 685, 692 (1897) (holding that eminent domain comes from the “right and duty of [every political sovereign community to] guard[] its own existence, and of protecting and promoting the interests and welfare of the community at large.”); *see generally* 1 Nichols on Eminent Domain § 1.141[3].

In situations where the City acquires property using federal funding, the Uniform Relocation Assistance and Real Property Acquisition Act sets out the minimum requirements the City must follow. However, this statute contains no provision giving the federal government authority over *which* properties are to be acquired. *See* 42 U.S.C. § 4601 *et seq.* EPA has no authority to approve property acquisition related to the construction of the OH-007 tank or to require the City to obtain access to the property.

Paragraph 73.c of the Order, as amended by EPA’s June 29, 2021 letter, provides in part as follows (EPA’s revisions shown in redline):

- c. Beginning upon the Effective Date of this Order, Respondent shall ensure appropriate implementation of applicable City regulations for sewer connections (Chapter 31 of Title 15 of the Rules of the City of New York) and stormwater control regulations and standards, as set forth in the ROD, ~~at minimum,~~ and as may be updated in City regulations and guidelines, for project plan approvals within the Gowanus Canal sewershed, to ensure that hazardous substances and solids from additional stormwater and sewage loads do not compromise the effectiveness of the remedy, and the permanent CSO control measures by exceeding their design capacity. ~~See ROD at page 85.~~ When implementing or approving municipal sewer infrastructure upgrades which discharge to the Gowanus Canal, and/or private stormwater controls ~~within the Gowanus Canal sewershed~~ along the banks of the Canal, stormwater shall be separated ~~for discharge to the Gowanus Canal~~ to the maximum extent practicable, and such

[stormwater discharges shall be treated pursuant to paragraph 73.d below.](#)

Paragraph 73.c.'s requirement that the City ensure "appropriate" implementation of its own regulations is likewise not within EPA's power to order. As the Order acknowledges, DEP has the authority to review and approve sewer connections under 15 RCNY Chapter 31. Based on that authority, DEP may direct developers to connect to available combined or separate sewers as applicable and require stormwater controls for certain qualifying development where these options are available. However, these are decisions that are within the authority of DEP, not EPA. The City proposed a resolution to this issue in the proposed edits to this sentence provided to Mr. Carr on May 4, but the proposed edits were not adopted in the final Order as amended.

Further, requiring that approvals of private stormwater controls provide that "stormwater shall be separated to the maximum extent practicable" would require private developers to seek State Pollutant Discharge Elimination System (SPDES) permits from the New York State Department of Environmental Conservation (DEC) where the option of direct discharge was available. In this instance, the authority to grant such a permit is not with DEP or EPA, but instead with DEC.

The U.S. Supreme Court has made clear that the federal government does not have the power to enforce local or state regulations, nor the power to force local or state governments to enforce or implement local or state regulations in a particular manner. *See, e.g., New York v. United States*, 505 U.S. 144, 188 (1992) (holding that while the federal government and the states could both regulate low level radioactive waste, the federal government could not simply direct the states to enact and enforce a federal regulatory program); *Printz v. United States*, 521 U.S. 898, 935 (1997) (Congress cannot circumvent commandeering prohibition by conscripting state officials directly). It is axiomatic that if commandeering state and local governments to enforce federal regulations is beyond the authority of the federal government, so too is commandeering state and local governments to enforce *their own* regulations in a manner that the federal government dictates.

Therefore, the City has sufficient cause not to comply with these requirements in paragraphs 73.a. and 73.c.

IV. The City Has Sufficient Cause For Not Complying With Paragraphs 73.b., 73.c. And 73.d. Of The Order Because The Requirements In Those Paragraphs Are Arbitrary And Capricious, Inconsistent With The NCP, And Are Technically And/Or Financially Impossible or Impractical to Implement.

Separate and apart from the legal invalidity of the requirements in paragraphs 73 as set forth above, the City has sufficient cause not to comply with the requirements of paragraphs

73.b., 73.c., and 73.d. because (i) these paragraphs impose requirements that are technically and/or financially impracticable or impossible and thus do not meet NCP criteria, including implementability and cost, and (ii) in any event, the City has substantially complied with EPA's express purpose for those requirements: preventing recontamination of the in-Canal remedy. Specifically, the City has sized and designed the two CSO tanks to achieve percentage CSO solids reduction well beyond ROD requirements while accounting for significant growth in population in the Gowanus watershed. In addition, the City is seeking to expand its regulations City-wide to both separate and combined sewer areas through a Unified Stormwater Rule (USWR), the implementation of which will regulate the treatment and amount of stormwater that enters the City's sewer system, including in the combined sewer area surrounding the Gowanus Canal. The City believes that the USWR once promulgated will regulate the flow of stormwater that enters the City's combined sewers sufficiently so as not to compromise the effectiveness of the permanent CSO control measures.

The specific technical and financial impossibility and impracticability in paragraphs 73.b., 73.c. and 73.d. are discussed below.

A. Reporting on Solids Removal under Paragraph 73.b.

Paragraph 73.b. of the Order, as amended by EPA's June 29, 2021 letter, provides as follows (EPA's revisions shown in redline):

- a. CSO Tank Operation and Maintenance: Following completion of construction of the RH-034 and OH-007 Tanks, respectively, Respondent shall properly operate and maintain such Tanks. Respondent shall submit to EPA a quarterly report summarizing the operation and maintenance status of such Tanks, including the volume of water treated, the total amount of solids that entered the treatment system, and the amount of solids captured (as weight of materials ~~sludge~~ shipped off-~~S~~site). Respondent shall submit the proposed form and contents of the quarterly reports for EPA approval.

The City objects to the requirement set forth in paragraph 73.b. that DEP report to EPA on "the volume of water treated, the total amount of solids that entered the treatment system, and the amount of solids captured as weight of materials shipped off-site" at each of the CSO tanks. The CSO facilities will have the ability to remove solids from the combined sewage that enters the tank, but the solids will consist mostly of grit, such as sand, gravel and other inorganic components, which would not be contaminated with ROD COCs. This grit will be captured in containers along with screenings residuals and will be shipped offsite, and there are no provisions for weighing those containers. Organic solids, which may be contaminated with COCs, will remain in the tank and be pumped to the wastewater facility following the storm;

thus, measuring the amount of solids captured “as weight of materials shipped off-site” is not only impossible to accurately determine, but also not an appropriate measurement of solids captured at each CSO tank.

B. Separation of Sewers under Paragraph 73.c.

As set forth above, EPA does not have legal authority to require the City to enforce or implement local stormwater regulations. Even if EPA had that authority, however, the City does not have the ability to comply with all aspects of the requirements set forth in paragraph 73.c. For example, paragraph 73.c., as amended, requires that “when implementing or approving municipal sewer infrastructure upgrades which discharge to the Gowanus Canal and/or private stormwater controls within the Gowanus Canal sewershed along the banks of the Canal, stormwater will be separated to the maximum extent practicable, and such stormwater discharges shall be treated pursuant to paragraph 73.d. below.”

DEP regulations establish requirements for connections to available combined or separate sewers, however, replacing combined sewers with separate sewers to the “maximum extent practicable,” does not mean that infrastructure upgrades or newly approved private stormwater controls will include separate sewers because of limitations inherent in the combined sewershed that surrounds the Gowanus Canal and incorporating new separated sewers into the drainage plan. Separate storm sewers are not always prudent in low-lying areas like Gowanus – significant storms, coupled with sea level rise and/or storm surges would likely require pumping in order to provide relief from flooding. Additionally, DEP’s Drainage Plan was created as a combined system, so generally it has smaller pipes discharging into larger pipes as you go inland to a regulator on the Interceptor. Storm pipes would need to be installed in the opposite direction with smaller inland pipes discharging to larger pipes as you go towards the water where outfalls will be located.

Recently, DEP received a permit sewer connection application for a development along the canal that highlights the problems associated with separating sewers in this area. The developer had indicated that, in accordance with the Order, it will send sanitary loads to the combined sewer; that it will separate and treat stormwater from the site; and that it will discharge the on-site stormwater to the canal pursuant to a SPDES permit it will obtain from NYSDEC. DEP has no objection to these aspects of the developer’s plan. However, the development also includes the creation of a new street that ends at the canal, and the developer has proposed separating and treating stormwater from the new street and discharging it to the canal from a second outfall at the street end. This is problematic for several reasons.

First, it is impractical for DEP to maintain separate infrastructure in the same street, *i.e.*, combined sewer moving away from the canal and separated sewer traveling to the canal. It is also impractical for DEP to plan for separated sewers in a piecemeal fashion instead as part of its comprehensive drainage plan. This piecemeal approach also adds an unnecessary burden on the

ratepayers, particularly in flood prone areas where there is significant potential for backups related to sea level rise and increased storm events. Finally, during the vast majority of storms, combined flow would be treated at the City's wastewater treatment plants, especially after the CSO tanks are constructed and operational. Thus, in this situation, DEP believes that the most practical solution is to require the developer to connect to the combined system for both sanitary loads and stormwater loads from the new street.

Moreover, the requirement to construct and operate new separated stormwater sewers would be financially burdensome and DEP does not have the resources and funding to undertake such a substantial increase in assets. Again, EPA is requiring the City to expend further funds that were not contemplated or analyzed in the Feasibility Study, PRAP or ROD without compliance with the NCP.

C. Reporting under Paragraph 73.c.

Paragraph 73.c., as amended, requires the City to submit to EPA an annual report beginning in 2022 summarizing "the major project plan approvals and completions for the preceding calendar year within the Gowanus Canal sewershed, as well as the projected net changes in sanitary and stormwater loadings related to completed projects." As part of the application for connection to the City sewer system, an applicant must provide the proposed sanitary discharge, proposed development site storm flow, allowable flow from the site and/or the stormwater release rate from the site in accordance with DEP rules. DEP thus receives information on the projected storm and sanitary flows, as applicable. However, DEP's approval of a project does not mean that the project will be implemented. Further, pollutant loadings from sanitary and stormwater flows are calculated through modeling, are not expected to change significantly on an annual basis and are better measured on a long-term basis. Thus, DEP believes that beginning in 2023 reporting the number of stormwater management pollution prevention plans for approved and/or completed projects, including the number of post construction management practices triggered by the City's stormwater regulations, should be sufficient. This clarification was included in the proposed edits conveyed to Mr. Carr on May 4th, but was rejected by EPA.

D. Treatment Units at Separated Sewer Outfalls under Paragraph 73.d.

In addition to the legal issues discussed above, there are many technical issues relating to the installation of outfall treatment units. End of pipe controls are very difficult to retrofit to existing systems due to hydraulic constraints, and head losses imposed by new treatment systems could cause flooding issues upstream. Further, the streets in the Gowanus sewershed are already congested with other utilities, and it could be difficult to find space in the streets for end of pipe treatment systems. Vortex treatment units require specific flow rates and hydraulic designs that may not be met with retrofits. Finally, treatment units can be difficult to maintain depending on location in street, as they often end up under parking spaces, or require street

closing in order to inspect, maintain and clean. This is precisely why these remedial alternatives should have been thoroughly evaluated consistent with the NCP.⁹

In addition, the City recently conducted a pilot study on separate storm water treatment technologies including hydrodynamic vortex separators in the Gowanus Canal Watershed and the monitoring data was provided to EPA. The data suggests vortex separators were no more or less effective than other technologies such as catch basins inserts or existing catch basins. For this reason, because the treatment units were not selected in the ROD consistent with the NCP, the City has sufficient cause not to maintain any such existing units.

E. Reporting of oils and solids captured from separate storm sewers under Paragraph 73.d.

Paragraph 73.d. of the Order, as amended, further provides in part as follows (EPA revisions shown in redline):

Commencing on January 31, 2022, Respondent shall submit to EPA an annual report summarizing the location of such treatment units and their maintenance status, including the amounts of oil and solids removed from each unit, and the results of semi-annual testing of the water at the exit point of the treatment units to ensure the functionality of the units. The treatment unit testing shall include solids content, VOCs, SVOCs, and heavy metals. Respondent shall submit the proposed form and contents of the annual reports for EPA approval. Respondent shall request EPA approval for treatment units on a project-by-project basis, or, as appropriate, for a set of standardized units.

There is no standard in paragraph 73.d. of the Order, the ROD or any other document for capture of solids or effectiveness of separation of oil contamination from separate sewer discharges. The City also objects to EPA's requirement that DEP must report the amount of solids and oils removed from *each* outfall treatment unit, as it is technically infeasible and unduly burdensome. The City further objects to the requirement that it must test the treatment units for contaminants that are not contaminants of concern identified in the ROD (VOCs,

⁹ Not only are the requirements of paragraph 73.d. relating to the installation and operation of treatment units at separated stormwater outfalls not authorized by the ROD or consistent with the NCP, but they are also unduly burdensome considering that the City is already required to meet water quality standards under the Clean Water Act. Except in very limited circumstances, DEP does not currently have treatment or sampling infrastructure at storm outfalls or street ends. While DEP's LTCP program requires chlorination/dechlorination and floatables control, these requirements only apply to a small number of CSO outfall locations associated with a CSO tank or other large conduit. This requirement would add a substantial amount of additional infrastructure to be maintained and/or monitored by DEP.

SVOCs). Indeed, this requirement suggests that EPA will require DEP to install outfall treatment units that remove these contaminants even though they are not identified in the ROD, and treating for such contaminants would significantly increase the cost of these treatment units.

F. CSO Solids Monitoring under Paragraph 73.e and CSO maintenance dredging under Paragraph 73.f.

Paragraphs 73.e. and 73.f. of the Order, as amended by EPA's June 29, 2021 letter, provide as follows (EPA's revisions shown in redline):

e. CSO Solids Monitoring: Respondent shall monitor post-dredging CSO solids contaminant levels pursuant to an EPA-approved Monitoring Plan ("Plan"). The Plan shall include periodic in-Canal monitoring of ~~CSO solids~~ surface sediment recontamination levels and annual tracking of CSO solids loading from each CSO outfall, including a detailed description for how the CSO outfall solids loading is calculated. for the purpose of determining whether CSO solids removal will be required to mitigate impacts to sediment from CSO discharges. The Plan shall be submitted for EPA approval by October 31, 2021, and the City shall submit the proposed form and content of the monitoring to be reported pursuant to the Plan for EPA approval at least 60 days prior to this date. In-Canal monitoring consistent with the Plan shall begin one year after EPA notifies Respondent that capping is completed in RTA 1. The CSO solids outfall loading monitoring shall begin ~~on as early as~~ June 1, 2022, to establish a baseline for CSO solids loading ~~prior to the buildout of rezoning within the Gowanus Canal sewershed.~~

f. CSO Solids Maintenance Dredging: If EPA so directs, based on the monitoring performed pursuant to paragraph 73.e. Respondent shall perform CSO solids maintenance dredging. Such work shall be performed in accordance with a work plan and schedule approved by EPA. If the CSO solids maintenance dredging results in any damage or impacts to the cap system, Respondent shall be responsible for cap repairs. Respondent shall coordinate and cooperate with respondents to EPA enforcement instruments for implementation of the CSO and in-Canal remedies, including for mitigation and repair of CSO maintenance dredging impacts to the cap.

The City objects to the requirement that it monitor CSO solids contaminant levels in the Canal post-dredging under paragraph 73.e, including periodic in-canal monitoring of surface sediment recontamination levels and annual tracking of CSO solids loading from each CSO outfall. This would require the City to conduct bathymetry surveys and to conduct sampling of

canal sediment, CSO discharges, and discharges from the Flushing Tunnel, all of which go well beyond the scope required to determine if a maintenance dredge is required for deposition that occurred post dredging and prior to the operation of the CSO tanks, which is the only applicable obligation.

The ROD very specifically only requires reductions in solids discharges from two CSO outfalls, RH-034 and OH-007, and not each and every outfall that discharges to the Canal. The sampling effort required to sample each and every outfall during wet weather would be extremely impractical, expensive and burdensome. Multiple crews would be required to actually perform the sampling due to the number of outfalls and logistical requirements, and crews would be required to wait on standby in anticipation of wet weather events that do not always materialize.

In addition, it would be infeasible to accurately determine the source of the contaminated sediment if found, due to a number of potential pathways unrelated to CSO discharges, including tides and storm surges, the Flushing Tunnel and/or recontamination of sediment from contaminated groundwater, ebullition or seeps from uplands sites.

Finally, the addition of the language “for purposes of determining whether CSO solids removal will be required to mitigate impacts to sediment from CSO discharges” is unclear and potentially beyond the requirements of the ROD. To the extent “CSO solids removal” in paragraph 73.e. refers to maintenance solids dredging in the Canal, as paragraph 73.f. suggests, then paragraph 73.e. should so state. However, to the extent the phrase “CSO sediment removal” in paragraph 73.e. refers to additional CSO solids reductions, then this language directly contradicts the ROD remedy which selected two CSO tanks with a CSO solids reduction percentage of 58 to 74. The City has in fact designed CSO tanks with a solids reduction percentage well in excess of the ROD requirement. But paragraph 73.e. cannot impose a CSO solids reduction percentage beyond that which the ROD requires.

G. CSO maintenance dredging under Paragraph 73.f.

Paragraph 73.f. provides that EPA, in its discretion, can require the City to perform maintenance dredging. But neither the ROD nor the order cabin that discretion. There is no standard for determining whether maintenance dredging is necessary. The absence of such a standard compounds the difficulties discussed above regarding in-Canal sampling required by Paragraph 73.c. The Order empowers EPA to direct the City to perform maintenance dredging, without such a standard, and this obligation may attach even where the data shows that the sources of solids and contaminants in-Canal are unrelated to the CSOs.¹⁰

¹⁰ The absence of any standard (i) in paragraph 73.d. for capture efficiency of solids or separation of oil contamination from separate sewer discharges, and (ii) in paragraph 73.f. for when maintenance dredging as a result

H. The City does not admit to the factual findings in the Order.

The City's notice of its intent to comply with the Order is not an admission of any liability, nor an admission of any facts or conclusions of law EPA alleges in the Order. By way of example only, among other things, the City disputes the following:

1. In paragraph 8, the Order states that the City owns the Canal. On the contrary, Brooklyn Improvement Company constructed and owned the turning basins at the Canal. As for the main stem of the Canal, the only portions the City may own are derived from a patent granted by the King of England to the City of Brooklyn in the 1600s. That patent applies only to lands in the bed of the original Gowanus Creek. Approximately twenty-five percent (25%) of the bed of Gowanus Creek is co-extensive with Canal. Further, all of RTA-3 in the Canal was originally part of Gowanus Bay and not within the aforementioned King's patent. The City will provide additional information on this issue if EPA so desires.

2. In paragraph 14, the Order states that the 1st Street Basin was filled in between 1954 and 1966. The City did not fill in the Basin. In addition, the City neither constructed nor operated the 1st Street Basin and there is no definitive evidence that the City owned the 1st Street Basin.

3. In paragraph 34, the Order states that the releases from the BRT Powerhouse "likely" resulted in contamination in the 1st Street Basin and the Canal. On the contrary, sampling, analytic and forensic evidence demonstrates that contaminants in the 1st Street Basin and the Canal are not related to releases from the BRT Power House during the City's ownership or operation of the BRT Power House.

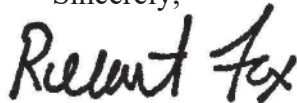
4. As set forth in prior correspondence, in emails, in meetings and in progress reports, and pursuant to the force majeure provisions of the relevant EPA orders, the City disputes EPA's findings (including those in paragraphs 51 and 52 of the Order) that the City failed to comply with the City UAO or the City Consent Order.

of CSO discharges would be required, deprives the City of the ability to determine how to comply with the Order and therefore does not afford the City with due process.

Brian Carr, Assistant Regional Counsel
July 14, 2021
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In sum, the City remains committed to complying with the Order by performing the removal action and remedial actions required by the ROD, namely design and construction of the CSO tanks and bulkhead for the OH-007 tank location. The City looks forward to working collaboratively and cooperatively with EPA to do so.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert D. Fox". The signature is fluid and cursive, with the first name "Robert" and last name "Fox" clearly distinguishable.

Robert D. Fox
For MANKO, GOLD, KATCHER & FOX, LLP

RDF/kl

cc: Hilary Meltzer, Esquire
Christopher King, Esquire
Devon Goodrich, Esquire
Tess Dernbach, Esquire
Elissa Stein Cushman, Esquire
Daniel Mulvihill, Esquire