

Technical Memorandum—TM001
Gowanus Canal Combined Sewer Overflow (CSO) Facilities Project
CEQR No. 17DEP040K
April 23, 2021

A. INTRODUCTION AND PROJECT BACKGROUND

On February 1, 2018, the New York City (City) Department of Environmental Protection (DEP), as lead agency, issued a Notice of Completion for the *Gowanus Canal Combined Sewer Overflow (CSO) Facilities Final Environmental Impact Statement (FEIS)*. The FEIS considered the Gowanus Canal CSO Facilities Project, which would construct two CSO facilities along the Canal. The first of the two CSO facilities, the “Head End Facility,” would include an 8-million-gallon (MG) underground tank that would increase CSO capture for overflows that would otherwise be discharged from CSO outfall RH-034 at the “head end,” or northernmost portion of the Canal. The second facility, the “Owls Head Facility,” would include a 4-MG tank that would increase CSO capture for overflows that would otherwise be discharged from CSO outfall OH-007, which is located at the middle of the Canal (approximately 0.5 miles south of the northernmost portion of the Canal). DEP issued its Statement of Findings for the Gowanus CSO Facilities on February 22, 2018.

The Project is mandated by the United States Environmental Protection Agency (USEPA) to satisfy remediation objectives under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, or Superfund). On March 2, 2010, the Canal was designated a federal Superfund site under CERCLA and placed on the National Priorities List (NPL). The main goal of the CERCLA process is to remediate constituents of concern (certain hazardous substances) in the Canal sediments that were deposited over the Canal’s long industrial history. On September 27, 2013, the USEPA issued a Record of Decision (USEPA ROD) identifying actions to be undertaken by various parties to remediate contamination in the Canal. As part of the USEPA ROD, USEPA mandated the design and construction of two CSO facilities.

As discussed in the FEIS, DEP is seeking approvals for the Project that are subject to the Uniform Land Use Review Procedure (ULURP). To support the construction of the Head End Facility, DEP must acquire and site select two parcels located at 242 Nevins Street (Block 418, Lot 1) and 234 Butler Street (Block 411, Lot 1) to accommodate the Head End Facility, and lease or acquire one parcel located at 270 Nevins Street (Block 425, Lot 1) to use as a construction staging area. The acquisition and site selection for the Head End Facility completed ULURP review with City Council approval on April 11, 2018 (ULURP No. C 180065 PCK), and DEP completed acquisition of the properties at the Head End Site in September 2018; a demapping application regarding the Head End Facility (ULURP No. 180039 MMK) is being processed separately. To support the construction of the Owls Head Facility, DEP must acquire and site select up to four privately-owned parcels located at 110 Fifth Street (Block 990, Lot 21), 122 Fifth Street (Block 990, Lot 16), 22 2nd Avenue (Block 990, Lot 1), and 5th Street (Block

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977, Lot 1). The Owls Head Facility would also use one City-owned parcel (Block 977, Lot 3), for which a site selection approval is required; this City-owned parcel currently contains a New York City Department of Sanitation (DSNY) facility, and the acquisition and site selection approval for the privately owned parcels would also facilitate the relocation of the DSNY facility. Collectively, including the Head End Site properties that have already been acquired, the Project includes the lease or acquisition of up to seven privately-owned properties to support the Facilities and construction staging areas.

In May 2014, following the issuance of the USEPA ROD, USEPA issued a unilateral Administrative Order for Remedial Design (RD Order) which established milestones for the City to design the two CSO facilities. Subsequently, on June 9, 2016, USEPA issued an Administrative Settlement Agreement and Order for Remedial Design, Removal Action and Cost Recovery (Settlement Agreement) directing DEP to construct the Head End Facility at the recommended location. At that time, the possibility of pursuing land use approvals for both facilities concurrently was considered; however due to the activities required to meet the USEPA ROD and RD Order, it was determined that it would not be possible to complete concurrent ULURP approvals for both sites in the required timeline of the Head End Facility. As noted above, the acquisition and site selection for the Head End Facility completed ULURP review with City Council approval on April 11, 2018. At this time, DEP is continuing to seek additional ULURP approvals for the Owls Head Facility: site selection for the City-owned parcel for the CSO facility, site selection and acquisition of the four privately-owned parcels to facilitate the CSO facility as well as the relocation of the existing DSNY facility, and the demapping of 5th Street.

This Technical Memorandum considers any potential changes to the Owls Head Facility from what was analyzed in the *Gowanus Canal CSO Facilities Project FEIS* and assesses whether any proposed project modifications would result in any new or different significant adverse environmental impacts that were not identified in that FEIS. In parallel with the design of CSO tanks, DEP studied the feasibility of constructing a 16 MG CSO storage tunnel as an alternative to satisfy the remediation objectives of the USEPA ROD, and to adopt an integrated solution that addresses Superfund requirements, Clean Water Act requirements, and climate resiliency. Potential benefits of the tunnel alternative included:

- Greater CSO capture and reduction of CSO discharges to the Canal: Upon completion of the 8- and 4-million-gallon storage tanks, CSO reductions are projected to be 83 percent at the RH-034 outfall and 86 percent at the OH-007 outfall for a typical rainfall year, surpassing the USEPA ROD's solids reductions targets of 58 percent to 74 percent. A 16-million-gallon storage tunnel would provide even greater CSO reductions of 88 percent at the RH-034 outfall and 100 percent at the OH-007 outfall for the typical rainfall year. Furthermore, the number of CSO overflow events to the Gowanus Canal is projected to decrease from six and four events per year with tanks to four and zero events per year with the tunnel at the RH-034 and OH-007 outfalls respectively;
- Improved upland drainage related to sea level rise: As water surface elevations in the Gowanus Canal rise, tide gates will remain closed for longer periods, slowing street drainage rates. In contrast to the tank configurations, a larger, scalable storage tunnel that connects CSO outfalls would enable DEP to proactively curtail surcharging related to sea level rise and increasing storm intensities, thus improving land-side conditions;
- Reduced structural issues related to the cutoff wall to be constructed by National Grid on the Head End Site: the storage tunnel, which features small-footprint shafts located further from

- Grid's wall, is better able to accommodate the prospective need for additional wall anchoring and possible impacts from the dredging of the Canal;
- Smaller permanent surface presence and reduced disturbances to the surrounding community: the tunnel provides quality-of-life advantages from a construction and long-term operations perspective. Traffic and noise impacts would be reduced and more green space would become available. The tunnel could also defer or offset the need for conventional sewer repair or replacement work, lessening the impacts of such work on the community;
 - Improved resiliency and ability to adapt to climate change: the tunnel would provide better protection for the neighborhood as sea levels rise and rainfall intensities increase. In particular, the tunnel would allow for future extensions and bolting on of longer-term solutions to address future street drainage, sewer backups, and storm surges; and
 - Ability to adapt to neighborhood growth: the flexibility and scalability of the tunnel would also accommodate future growth in the area, including growth resulting from the proposed Gowanus Neighborhood Rezoning.

In August, 2018, DEP submitted a tunnel evaluation report to the USEPA assessing the feasibility of constructing a tunnel solution. However, in letters to DEP dated September 20, 2019, and November 26, 2019, USEPA stated that it would not alter the Superfund remedy for CSOs to authorize the proposed tunnel.

Therefore, DEP is moving forward with the implementation of the tanks project to address the requirements of the USEPA ROD.

B. REQUIRED APPROVALS

For the Owls Head Facility, DEP, DSNY, and the New York City Department of Citywide Administrative Services (DCAS), collectively, the “applicants,” are seeking site selection and acquisition (ULURP no. 200319 PCK) of four privately owned properties on the Owls Head Site: 110 Fifth Street (Block 990, Lot 21), 122 Fifth Street (Block 990, Lot 16), 22 2nd Avenue (Block 990, Lot 1), and 5th Street (Block 977, Lot 1). The applicants are also seeking site selection approval (ULURP no. 200321 PSK) for the City-owned parcel on the Owls Head Site (Block 977, Lot 3); this parcel is currently controlled by DSNY, and the approval would be required in order for the parcel to be used as a CSO facility. In addition, the applicants are pursuing an amendment to the City Map involving the elimination of 5th Street between 2nd Avenue and the Canal (ULURP no. 200320 MMK); this portion of 5th Street is mapped and partially built on Block 977, Lot 1.

DEP will also be pursuing the demapping (ULURP no. 180039 MMK) of the mapped portion of Douglass Street to correct the title and record for a portion of the Head End Facility—this portion of Douglass Street is mapped but unbuilt on portions of Block 418, Lot 1 and Block 411, Lot 24, located in the area to be developed with the Head End Facility. This demapping action is intended as a follow up to a previously approved site selection and acquisition for the Head End Facility, as noted in the FEIS. As such, the proposed demapping is being reviewed in conjunction with the proposed set of ULURP actions for the site selection, site selection and acquisition, and 5th Street demapping associated with the Owls Head Facility.

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In addition to the ULURP acquisition, site selection, and demapping approvals described above, implementation of the Gowanus Canal CSO Facilities Project requires federal, state, and local permits/approvals, or their equivalents under CERCLA. **Table 1** includes the major permits, approvals, or their equivalents under CERCLA that may be required for the Project.

Table 1

**Potential Major Permits, Approvals or Equivalent, Consultation, and Coordination¹—
Gowanus Canal CSO Control Facilities**

| Agency/Entity | Permit/Approval/Consultation/Coordination |
|--|--|
| FEDERAL | |
| U.S. Environmental Protection Agency (USEPA) | CERCLA coordination and consultation |
| Coastal Zone Management Act | Projects affecting New York's coastal zone must be consistent with the Coastal Zone Management Act, through the New York State Department of State's Coastal Management Program and approved Local Waterfront Revitalization Plans |
| U.S. Army Corps of Engineers (USACE) | Permits under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act |
| United States Fish and Wildlife Service (USFWS) | Consultation under Section 7 of the Endangered Species Act; Biological Assessment; Federal Fish and Wildlife Permit |
| Advisory Council on Historic Preservation | Consultation under Section 106 of the National Historic Preservation Act of 1966 |
| STATE | |
| New York State Department of State (NYS DOS) | Coastal Zone Management Consistency |
| New York State Department of Environmental Conservation (DEC) | State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity - GP-0-10-001: erosion and sediment control and post-construction stormwater management in accordance with the stormwater pollution prevention plan (SWPPP) |
| | Individual SPDES Permit or Application Form NY-2C for Industrial Facilities (Dewatering activities requiring discharge to surface water) |
| | Modification to a SPDES Permit (Individual Permit) for Discharge of Wastewater from Publicly Owned Treatment Works (NY-2A) to remove inactive outfalls |
| | Tidal Wetlands Permit |
| | Long Island Well Permit and Approval of Completed Works |
| | Protection of Waters Permit Navigable Waters (Excavation or Fill) |
| New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) | Section 401 Water Quality Certification |
| | Natural Heritage Program Consultation—consultation to determine potential presence of threatened or endangered species listed in New York State |
| New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) | Consultation to determine potential presence of archaeological and/or historic resources and determine project's potential effects |
| NEW YORK CITY | |
| New York City Department of City Planning (DCP) | ULURP for site selection, property acquisition, and amendment to the City Map (street demapping). ² |
| | New York City Waterfront Revitalization Program—Consistency Assessment |
| New York City Department of Small Business Services (SBS) | Permitting for waterfront construction |
| Note: | |
| ¹ Includes documentation of regulatory compliance under CERCLA through equivalent review by responsible agencies. | |
| ² ULURP for site selection and property acquisition is required for the Owls Head Facility. Street demapping (5th Street) is also being undertaken for the Owls Head Facility. These approvals are included in the application currently under consideration. | |

C. DESCRIPTION OF POTENTIAL PROJECT MODIFICATIONS

As stated in the FEIS, the Owls Head Facility would consist of an approximately 31,000-sf below-grade structure containing a 4 million gallon (MG) tank and tank system. During wet weather events, sewer flows would be conveyed to the facility and held in the storage tanks until there is sufficient downstream capacity in the sewer system to convey the stored flow to the Owls Head Wastewater Treatment Plant (WWTP). In addition to the below-grade structure, the Owls Head Facility would include an approximately 17,600 sf, two-story above grade structure. A portion of the site (Block 977, Lot 3) contains a DSNY facility that would be incorporated at

the Owls Head Facility; the property is also used periodically by a local non-profit environmental group for environmental education and stewardship events, including composting operations. The five parcels where the Project would be located would accommodate both the existing DSNY facility and the Owls Head Facility, and is also expected to be accessible for the existing environmental and composting activities following construction of the Owls Head Facility. The remainder of the site is expected to be paved and accessible for maintenance and operations with landscaping where appropriate. DEP is also evaluating the potential for the site to include accessible waterfront open space where it does not interfere or conflict with the operation of the Owls Head Facility.

At this time, the Owls Head Facility has not undergone detailed design; however, no changes to the facility as described above are currently anticipated. Similarly, no changes to the site plan of the Owls Head Site are anticipated, and the same uses (the relocated DSNY facility and space for associated activities) would be accommodated on the site in addition to the Owls Head Facility.

D. ENVIRONMENTAL ASSESSMENT

As discussed in the FEIS, construction and operation of the CSO Facilities is not anticipated to have significant adverse impacts in the areas of: land use, zoning, and public policy; socioeconomic conditions; community facilities and services; open space; shadows; urban design and visual resources; natural resources; hazardous materials, water and sewer infrastructure; solid waste and sanitation services; energy; transportation; air quality; greenhouse gas emissions and climate change; noise; public health; and neighborhood character.

The FEIS determined that, specific to the Owls Head Facility, the Project would result in significant adverse impacts to historic and cultural resources.¹ As noted above, there have been no changes to the Owls Head Facility and the site plan of the Owls Head Site from the design analyzed in the FEIS, therefore there are no modifications that would affect the findings of the FEIS. Additional detail on this Owls Head Facility's potential effects and impacts in the areas of land use, zoning, and public policy and historic and cultural resources are presented below. In conclusion, as there have been no meaningful modifications to the Owls Head Facility or site plan, the significant adverse environmental impacts findings remain unchanged from those previously identified in the FEIS.

LAND USE, ZONING, AND PUBLIC POLICY

At the Owls Head Site, the design of the Owls Head Facility has not been modified since publication of the FEIS. As with the design analyzed in the FEIS, the facility would include an approximately 31,000-sf below-grade structure containing the 4-MG tank and tank system, and an approximately 17,600 sf, two-story above grade structure. The remainder of the Owls Head Site is expected to accommodate the existing DSNY facility, and is also expected to be accessible for existing environmental activities (i.e., education, composting) following construction of the Owls Head Facility. DEP and DSNY are continuing to evaluate the potential

¹ The FEIS also found that the Project would result in temporary significant adverse noise impacts during the construction period. However, these impacts are limited to receptors located near the Head End Site, and were not associated with construction of the Owls Head Facility.

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for the site to include accessible waterfront open space where it does not interfere or conflict with the operation of the Owls Head Facility or the DSNY facility.

As discussed in Chapter 2 of the FEIS, “Land Use, Zoning, and Public Policy,” the Project would be compatible with existing land uses in the nearby area around the Canal, which are primarily light-manufacturing, light-industrial, and commercial uses. Consistent with the Project as analyzed in the FEIS, operation of the Owls Head Facility would not result in disturbances from odors or noise affecting residential or open space uses. Similarly, the Facility would continue to comply with the applicable zoning regulations (M2-1 district) and the Project would not result in a non-conforming use. The Owls Head Facility is considered to be Use Group 18, similar to other CSO control facilities, such as DEP’s Paerdegat Basin CSO facility in Brooklyn. Use Group 18 facilities are permitted uses in the M2-1 zoning district applicable to the Owls Head Site. As with the current DSNY facility on the Owls Head Site, the relocated facility is considered to be Use Group 16, which generally consists of automotive and semi-industrial or general service uses, such as automotive repair or woodworking or welding shops. Use Group 16 uses are permitted in the M2-1 district. As with the Project as analyzed in the FEIS, the facilities are designed to meet all applicable zoning requirements.

As discussed in the FEIS, the Gowanus neighborhood has been the subject of a community planning process; in particular, starting in October of 2016, DCP along with other City agencies launched the Gowanus Neighborhood Planning Study, which seeks to foster and create a thriving, more resilient neighborhood by reinforcing and encouraging a robust local economy anchored by a mix of uses and businesses, while creating opportunities for new housing with affordable housing in appropriate locations. At the time of the FEIS, the study was in the preliminary stages of community outreach to gather feedback before developing and proposing a draft planning and land use framework for the area. This proposal, *Gowanus: A Framework for a Sustainable, Inclusive, Mixed-use Neighborhood*, was completed following issuance of the FEIS and released in June 2018. The Framework provides proposed objectives and strategies in seven planning and policy categories including sustainability and resiliency; environmental remediation; community and cultural resources; housing; economic and job development; transportation; and land use and urban form. Following the completion of the planning framework, in January 2019, DCP released a zoning proposal that seeks to modify the regulations affected by an approximately 80-block area in support of these objectives. The zoning proposal, which includes the creation of a new Special Gowanus Mixed-Use District, seeks to allow a wide range of uses in the Gowanus area to support mixed-use growth with affordable housing, maintain and grow Gowanus’ commercial and industrial businesses, and provide special tools to activate ground floors and create new public spaces and waterfront access where appropriate. In the spring of 2019, a public scoping meeting was held to discuss the scope of analysis for the Gowanus Neighborhood Rezoning’s Draft EIS (CEQR # 19DCP157K). The zoning proposal was certified to enter public review under the City’s Uniform Land Use Review Procedure (ULURP) on April 19, 2021. The Owls Head Site is not located within the area proposed to be rezoned as part of the Gowanus Neighborhood Rezoning; therefore, the rezoning would not affect the zoning regulations applicable to the Owls Head Site and would not alter the findings of the FEIS.

Similarly, the Owls Head Site is located within the Gowanus portion of the Southwest Brooklyn Industrial Business Zone (“Gowanus IBZ”). As a follow-up to the Framework, in 2019, DCP, agency partners, and local stakeholders led a public engagement effort to develop a shared vision for the southern part of Gowanus within the Gowanus IBZ and neighboring blocks. Goals of this study include supporting business growth, creating a land use framework, and identifying

priority infrastructure and workforce development needs. As discussed in the FEIS, while the Owls Head Facility would potentially displace four industrial businesses that are currently located on the Owls Head Site, the displacement of these businesses are not expected to result in a significant loss of industrial employment or affect business conditions for the other industrial businesses in the area. Therefore, the Owls Head Facility would not conflict with the City's continued goal of retaining industrial uses within the IBZ, and changes to the IBZ would not alter the findings of the FEIS.

In addition, the Project would continue to be consistent with, and supportive of, applicable public policies. In particular, the Project would continue to support the policies of the Waterfront Revitalization Program (WRP) by, among other factors, reducing CSO volumes and pollutant loads discharging to the Canal, thereby providing for improvements to water quality in the Canal and overall benefits to ecological resources. Similarly, the Project would continue to support the WRP goal of increasing public access to the waterfront. As stated in the FEIS (WRP Policy 8.2), projects should incorporate public access into new public development where compatible with the proposed land use and location, e.g., where it does not present a safety concern. In consideration of the goal of providing public access along the waterfront, DEP would incorporate public access along the Canal; the extent would be determined during design. The Owls Head Site would accommodate the Owls Head Facility and the DSNY facility, and would be available for composting and existing environmental activities following completion of construction, to be determined based on further coordination required between DEP and DSNY. DEP and DSNY are also evaluating the potential for the site to include accessible waterfront open space where it does not interfere or conflict with the operations of the Owls Head Facility and the DSNY Facility. Therefore, the Project would continue to provide public access where it would be consistent with the functional and operational needs of the CSO Facilities and does not preclude the development of public access, and there are no changes to the findings of the FEIS.

HISTORIC AND CULTURAL RESOURCES

As discussed in Chapter 7 of the FEIS, "Historic and Cultural Resources," and Chapter 23, "Mitigation," the Project would result in a potential significant adverse impact on archaeological resources: both the Head End Site and the Owls Head Site, as well as nearby streets where excavation would occur for sewer infrastructure, are sensitive for the presence of archaeological resources. Impacts would be mitigated to the maximum extent practicable through additional analyses, archaeological monitoring, or an alternative method developed in consultation with the New York State Historic Preservation Office (SHPO) and the New York City Landmarks Preservation Commission (LPC). Following the completion of the FEIS, DEP completed a geoarchaeological assessment of the Head End Site and the Owls Head Site. This assessment was performed to supplement the FEIS analysis in response to consultation letters from LPC and SHPO dated April 30, 2019, which recommended a review of geotechnical boring logs and retained soil samples in order to better understand the depth at which potential archaeological resources could be encountered by the Project and potential environmental constraints such as water and hazardous materials during subsequent archaeological monitoring, if necessary, during Project implementation. The assessment included a review of select historic maps and the boring logs of geotechnical borings performed at both sites, and examination of soil samples retained from those borings. In addition, four samples of organic materials collected from the borings were submitted for radiocarbon dating. The geoarchaeological assessment (dated October 2019) concluded that there is a low potential for the Project to impact deeply buried archaeological sites dating to the prehistoric period and that historic, pre-industrial sites have likely been

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destroyed by subsequent industrial development. Furthermore, as stated in the FEIS, though there is a high potential for the presence of late 19th through mid-20th century industrial remains, it is unlikely that traditional archaeological methods would recover significant data that could not be better gathered through documentary sources.

Despite generally low archaeological preservation potential, DEP would conduct archaeological monitoring during construction activities that will affect soil layers located below modern fill or modern disturbances and extending to the depth of glacial outwash. The depth at which archaeological monitoring could potentially encounter archaeological resources varies from as shallow as 8 to 11 feet below ground surface to a depth of approximately 24 feet below ground surface. Monitoring is also recommended for excavation into undisturbed portions of the adjacent street beds that will be impacted by the relocation of existing utilities and by construction of the conveyance and force mains. The depths of undisturbed soils along the adjacent street beds is highly variable and dependent upon the presence or absence of existing utilities. In comment letters dated November 11, 2019 and November 21, 2019, LPC and SHPO concurred with the findings and recommendations of the geoarchaeological assessment, respectively.

Prior to the start of construction, an archaeological monitoring plan would be prepared that would identify the horizontal and vertical locations of Project elements that have the potential to impact archaeological resources and would describe monitoring procedures, including an unanticipated discoveries plan. Implementation of this monitoring plan would be sufficient to avoid, minimize, or mitigate adverse impacts of the Project. Consultation with SHPO and LPC is ongoing, however, no changes to the additional analyses and monitoring that would be undertaken for the Owls Head Facility are anticipated. Therefore, there are no changes to the findings of the FEIS related to archaeological resources.

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