



City Environmental Quality Review

ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) FULL FORM

Please fill out and submit to the appropriate agency ([see instructions](#))

Part I: GENERAL INFORMATION

PROJECT NAME Jerome Park Reservoir Aqueduct Rehabilitation (JRAQ-REH)

1. Reference Numbers

CEQR REFERENCE NUMBER (to be assigned by lead agency)
17DEP022X

BSA REFERENCE NUMBER (if applicable)

ULURP REFERENCE NUMBER (if applicable)

OTHER REFERENCE NUMBER(S) (if applicable)
(e.g., legislative intro, CAPA)

2a. Lead Agency Information

NAME OF LEAD AGENCY
New York City Department of Environmental Protection
Bureau of Environmental Planning and Analysis

NAME OF LEAD AGENCY CONTACT PERSON
Mark Page Jr., Managing Director
Environmental Impact Analysis and Technical Review

ADDRESS 59-17 Junction Boulevard, 11th Floor

CITY Flushing STATE NY ZIP 11373
TELEPHONE 718-595-4395 EMAIL mpage@dep.nyc.gov

2b. Applicant Information

NAME OF APPLICANT
New York City Department of Environmental Protection
Bureau of Engineering Design and Construction

NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON
James Mueller, Acting Deputy Commissioner
Bureau of Engineering Design & Construction

ADDRESS 96-05 Horace Harding Expressway, 5th Floor

CITY Corona STATE NY ZIP 11368
TELEPHONE 718-595-5973 EMAIL jmueller@dep.nyc.gov

3. Action Classification and Type

SEQRA Classification

☒ UNLISTED ☐ TYPE I: Specify Category (see 6 NYCRR 617.4 and NYC Executive Order 91 of 1977, as amended):

Action Type (refer to [Chapter 2](#), "Establishing the Analysis Framework" for guidance)

☒ LOCALIZED ACTION, SITE SPECIFIC ☐ LOCALIZED ACTION, SMALL AREA ☐ GENERIC ACTION

4. Project Description

As a part of the overall plan to repair and upgrade the infrastructure of the Croton Water Supply System, the NYCDEP is proposing a project known as Jerome Reservoir and Aqueduct Rehabilitation (JRAQ-REH) to repair the Jerome Park Reservoir. To improve the water quality, site safety, and maintain the functionality of the Jerome Park Reservoir, various structural repairs and site improvements will be conducted. This includes: abandoning the Old Croton Aqueduct and East Basin Outfall along the eastern portion of the reservoir, repairs to the eastern wall of the reservoir, repairs to the dam inlet archway and wing walls near Gatehouse No. 7, repairs to the retaining wall adjacent to Lehman College, fence and guiderail installation along the eastern portion of the reservoir, and roadway surface and drainage improvements.

Project Location

BOROUGH Bronx COMMUNITY DISTRICT(S) 8 STREET ADDRESS Goulden Avenue

TAX BLOCK(S) AND LOT(S) Block 3246, Lot 1 ZIP CODE 10463

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Goulden Avenue, between W 205th Street and Sedgwick Avenue, north of Reservoir Avenue.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R6 ZONING SECTIONAL MAP NUMBER 1D

5. Required Actions or Approvals (check all that apply)

City Planning Commission: ☐ YES ☒ NO ☐ UNIFORM LAND USE REVIEW PROCEDURE (ULURP)

☐ CITY MAP AMENDMENT	☐ ZONING CERTIFICATION	☐ CONCESSION
☐ ZONING MAP AMENDMENT	☐ ZONING AUTHORIZATION	☐ UDAAP
☐ ZONING TEXT AMENDMENT	☐ ACQUISITION—REAL PROPERTY	☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY	☐ DISPOSITION—REAL PROPERTY	☐ FRANCHISE
☐ HOUSING PLAN & PROJECT	☐ OTHER, explain:	
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:		

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

Board of Standards and Appeals: ☐ YES ☒ NO

☐ VARIANCE (use)
☐ VARIANCE (bulk)

☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:			
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION			
Department of Environmental Protection: ☐ YES ☒ NO If "yes," specify:			
Other City Approvals Subject to CEQR (check all that apply)			
☐ LEGISLATION		☒ FUNDING OF CONSTRUCTION, specify: State Revolving Fund Program	
☐ RULEMAKING		☐ POLICY OR PLAN, specify:	
☐ CONSTRUCTION OF PUBLIC FACILITIES		☐ FUNDING OF PROGRAMS, specify:	
☐ 384(b)(4) APPROVAL		☐ PERMITS, specify:	
☒ OTHER, explain: Rehabilitation of City water supply infrastructure			
Other City Approvals Not Subject to CEQR (check all that apply)			
☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)		☐ LANDMARKS PRESERVATION COMMISSION APPROVAL	
☒ OTHER, explain: Permits: please see Attachment A			
State or Federal Actions/Approvals/Funding: ☒ YES ☐ NO If "yes," specify:			
6. Site Description: The directly affected area consists of the project site and the area subject to any change in regulatory controls. Except where otherwise indicated, provide the following information with regard to the directly affected area.			
Graphics: The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11 x 17 inches in size and, for paper filings, must be folded to 8.5 x 11 inches.			
☒ SITE LOCATION MAP		☒ ZONING MAP	
☒ TAX MAP		☒ SANBORN OR OTHER LAND USE MAP	
☒ PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP		☐ FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)	
Physical Setting (both developed and undeveloped areas)			
Total directly affected area (sq. ft.): 272072 sq ft		Waterbody area (sq. ft.) and type: 4,540,428 sq ft	
Roads, buildings, and other paved surfaces (sq. ft.): 24896 sf		Other, describe (sq. ft.):	
buildings, 24447 sf gravel, 108280 sf pavement			
7. Physical Dimensions and Scale of Project (if the project affects multiple sites, provide the total development facilitated by the action)			
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): N/A			
NUMBER OF BUILDINGS: N/A		GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): N/A	
HEIGHT OF EACH BUILDING (ft.): N/A		NUMBER OF STORIES OF EACH BUILDING: N/A	
Does the proposed project involve changes in zoning on one or more sites? ☐ YES ☒ NO			
If "yes," specify: The total square feet owned or controlled by the applicant:			
The total square feet not owned or controlled by the applicant:			
Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO			
If "yes," indicate the estimated area and volume dimensions of subsurface disturbance (if known):			
AREA OF TEMPORARY DISTURBANCE: 4380 sq. ft. (width x length)		VOLUME OF DISTURBANCE: 52560 cubic ft. (width x length x depth)	
AREA OF PERMANENT DISTURBANCE: 4380 sq. ft. (width x length)			
8. Analysis Year CEQR Technical Manual Chapter 2			
ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2023			
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 36			
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO IF MULTIPLE PHASES, HOW MANY?			
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Construction Contract Advertisement: April 3, 2018; Notice to Proceed: November 5, 2018; Substantial Completion: May 15, 2023			
9. Predominant Land Use in the Vicinity of the Project (check all that apply)			
☒ RESIDENTIAL		☐ MANUFACTURING	
☐ COMMERCIAL		☒ PARK/FOREST/OPEN SPACE	
		☒ OTHER, specify: Institutional/Educational	

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

The information requested in this table applies to the directly affected area. The directly affected area consists of the project site and the area subject to any change in regulatory control. The increment is the difference between the No-Action and the With-Action conditions.

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures	0	0	0	
No. of dwelling units	0	0	0	
No. of low- to moderate-income units	0	0	0	
Gross floor area (sq. ft.)	N/A	N/A	N/A	
Commercial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Describe type (retail, office, other)				
Gross floor area (sq. ft.)				
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type				
Gross floor area (sq. ft.)				
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Publicly Accessible Open Space	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):				
Other Land Uses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," describe:	Water supply infrastructure	Water supply infrastructure	Water supply infrastructure	
PARKING				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
Operating hours				
Attended or non-attended				
Lots	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
Operating hours				
Other (includes street parking)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
POPULATION				
Residents	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify number:				
Briefly explain how the number of residents				

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
was calculated:				
Businesses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. and type				
No. and type of workers by business				
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:				
Other (students, visitors, concert-goers, etc.)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If any, specify type and number:				
Briefly explain how the number was calculated:				
ZONING				
Zoning classification	R6	R6	R6	
Maximum amount of floor area that can be developed	N/A	N/A	N/A	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Park, Open Space, Single and Multi-family Residential, Institutional (Educational); R4A, R6, R6A, R7-1	Park, Open Space, Single and Multi-family Residential, Institutional (Educational); R4A, R6, R6A, R7-1	Park, Open Space, Single and Multi-family Residential, Institutional (Educational); R4A, R6, R6A, R7-1	
Attach any additional information that may be needed to describe the project.				
If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

Part II: TECHNICAL ANALYSIS

INSTRUCTIONS: For each of the analysis categories listed in this section, assess the proposed project's impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the "no" box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the "yes" box.
- For each "yes" response, provide additional analyses (and, if needed, attach supporting information) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a "yes" answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Full EAS Form. For example, if a question is answered "no," an agency may request a short explanation for this response.

	YES	NO
1. LAND USE, ZONING, AND PUBLIC POLICY: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☐	☒
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	☐	☒
o If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
o If "yes," complete the Consistency Assessment Form .		
2. SOCIOECONOMIC CONDITIONS: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
o Generate a net increase of more than 200 residential units or 200,000 square feet of commercial space?	☐	☒
▪ If "yes," answer both questions 2(b)(ii) and 2(b)(iv) below.		
o Directly displace 500 or more residents?	☐	☒
▪ If "yes," answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
o Directly displace more than 100 employees?	☐	☒
▪ If "yes," answer questions under 2(b)(iii) and 2(b)(iv) below.		
o Affect conditions in a specific industry?	☐	☒
▪ If "yes," answer question 2(b)(v) below.		
(b) If "yes" to any of the above, attach supporting information to answer the relevant questions below. If "no" was checked for each category above, the remaining questions in this technical area do not need to be answered.		
i. Direct Residential Displacement		
o If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?	☐	☐
o If "yes," is the average income of the directly displaced population markedly lower than the average income of the rest of the study area population?	☐	☐
ii. Indirect Residential Displacement		
o Would expected average incomes of the new population exceed the average incomes of study area populations?	☐	☐
o If "yes:"		
▪ Would the population of the primary study area increase by more than 10 percent?	☐	☐
▪ Would the population of the primary study area increase by more than 5 percent in an area where there is the potential to accelerate trends toward increasing rents?	☐	☐
o If "yes" to either of the preceding questions, would more than 5 percent of all housing units be renter-occupied and unprotected?	☐	☐
iii. Direct Business Displacement		
o Do any of the displaced businesses provide goods or services that otherwise would not be found within the trade area, either under existing conditions or in the future with the proposed project?	☐	☐
o Is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve,	☐	☐

	YES	NO
enhance, or otherwise protect it?		
iv. Indirect Business Displacement		
o Would the project potentially introduce trends that make it difficult for businesses to remain in the area?	☐	☐
o Would the project capture retail sales in a particular category of goods to the extent that the market for such goods would become saturated, potentially resulting in vacancies and disinvestment on neighborhood commercial streets?	☐	☐
v. Effects on Industry		
o Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	☐	☐
o Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?	☐	☐
3. COMMUNITY FACILITIES: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
o Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
i. Child Care Centers		
o Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
o If "yes," would the project result in a collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent?	☐	☐
o If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
ii. Libraries		
o Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
o If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	☐	☐
o If "yes," would the additional population impair the delivery of library services in the study area?	☐	☐
iii. Public Schools		
o Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
o If "yes," would the project result in a collective utilization rate of the elementary and/or intermediate schools in the study area that is equal to or greater than 100 percent?	☐	☐
o If "yes," would the project increase this collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
iv. Health Care Facilities		
o Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
o If "yes," would the project affect the operation of health care facilities in the area?	☐	☐
v. Fire and Police Protection		
o Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
o If "yes," would the project affect the operation of fire or police protection in the area?	☐	☐
4. OPEN SPACE: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx , Brooklyn , Manhattan , Queens , or Staten Island ?	☐	☒
(c) If "yes," would the project generate more than 50 additional residents or 125 additional employees?	☐	☐
(d) Is the project located within a well-served area in the Bronx , Brooklyn , Manhattan , Queens , or Staten Island ?	☒	☐
(e) If "yes," would the project generate more than 350 additional residents or 750 additional employees?	☐	☒
(f) If the project is located in an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☐	☐
(g) If "yes" to questions (c), (e), or (f) above, attach supporting information to answer the following:		
o If in an under-served area, would the project result in a decrease in the open space ratio by more than 1 percent?	☐	☐
o If in an area that is not under-served, would the project result in a decrease in the open space ratio by more than 5	☐	☐

	YES	NO
percent?		
o If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered? Please specify:	☐	☐
5. SHADOWS: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☐	☒
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
(c) If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach any sunlight-sensitive resource at any time of the year.		
6. HISTORIC AND CULTURAL RESOURCES: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☒	☐
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☐	☒
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. Old Croton Aqueduct, Jerome Park Reservoir		
7. URBAN DESIGN AND VISUAL RESOURCES: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☐	☒
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
(c) If "yes" to either of the above, please provide the information requested in Chapter 10 .		
8. NATURAL RESOURCES: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11 ?	☐	☒
o If "yes," list the resources and attach supporting information on whether the project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed ?	☐	☒
o If "yes," complete the Jamaica Bay Watershed Form and submit according to its instructions .		
9. HAZARDOUS MATERIALS: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☐	☒
(b) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☐	☒
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (e.g., gas stations, oil storage facilities, heating oil storage)?	☐	☒
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify:	☐	☒
(i) Based on the Phase I Assessment, is a Phase II Investigation needed?	☐	☒
10. WATER AND SEWER INFRASTRUCTURE: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of	☐	☒

	YES	NO
commercial space in the Bronx, Brooklyn, Staten Island, or Queens?		
(c) If the proposed project located in a separately sewered area , would it result in the same or greater development than that listed in Table 13-1 in Chapter 13 ?	☐	☒
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas , including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
11. SOLID WASTE AND SANITATION SERVICES: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14 , the project's projected operational solid waste generation is estimated to be (pounds per week): 0		
o Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
o If "yes," would the proposed project comply with the City's Solid Waste Management Plan?	☐	☐
12. ENERGY: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15 , the project's projected energy use is estimated to be (annual BTUs): 0		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. TRANSPORTATION: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16 ?	☐	☒
(b) If "yes," conduct the appropriate screening analyses, attach back up data as needed for each stage, and answer the following questions:		
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☐
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? **It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.	☐	☐
o Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☐
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway/rail trips per station or line?	☐	☐
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☐
14. AIR QUALITY: CEQR Technical Manual Chapter 17		
(a) <i>Mobile Sources:</i> Would the proposed project result in the conditions outlined in Section 210 in Chapter 17 ?	☐	☒
(b) <i>Stationary Sources:</i> Would the proposed project result in the conditions outlined in Section 220 in Chapter 17 ?	☐	☒
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17 ? (Attach graph as needed)	☐	☐
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		
15. GREENHOUSE GAS EMISSIONS: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☒	☐
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) Would the proposed project result in the development of 350,000 square feet or more?	☐	☒
(d) If "yes" to any of the above, would the project require a GHG emissions assessment based on guidance in Chapter 18 ?	☐	☒

	YES	NO
o If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See Local Law 22 of 2008; § 24-803 of the Administrative Code of the City of New York). Please attach supporting documentation.	☐	☐
16. NOISE: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☐	☒
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of sight to that rail line?	☐	☒
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		
17. PUBLIC HEALTH: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20 , "Public Health." Attach a preliminary analysis, if necessary.		
18. NEIGHBORHOOD CHARACTER: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21 , "Neighborhood Character." Attach a preliminary analysis, if necessary. The historic and cultural resource that will be impacted by the proposed project is not accessible by the public and/or not visible to the public. An alternatives analysis has been conducted for these resources and is included in Attachment B: Technical Analysis.		
19. CONSTRUCTION: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	☒	☐
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc.)?	☐	☒
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
o The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
o Closure of a community facility or disruption in its services?	☐	☒
o Activities within 400 feet of a historic or cultural resource?	☒	☐
o Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
o Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☐	☒
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22 , "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.		
See Attachment B: Technical Analysis - Construction impacts will be temporary.		
20. APPLICANT'S CERTIFICATION		
I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of the pertinent books and records and/or after inquiry of persons who have personal knowledge of such information or who have examined pertinent books and records. Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.		
APPLICANT/REPRESENTATIVE NAME <i>Mark Ben Sr.</i>	SIGNATURE <i>[Signature]</i>	DATE <i>5/16/17</i>
PLEASE NOTE THAT APPLICANTS MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE		

DISCRETION OF THE LEAD AGENCY SO THAT IT MAY SUPPORT ITS DETERMINATION OF SIGNIFICANCE.



Jerome Reservoir and Aqueduct Rehabilitation JRAQ-REH

**Environmental Assessment Statement
CEQR No. 17DEP022X**



May 2017

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List of Acronyms and Abbreviations:

ASR	Alkali-silica reaction
CBD	Central Business District
CEQR	City Environmental Quality Review
CLSM	Controlled Low-Strength Material
DSNY	Department of Sanitation of New York City
EAS	Environmental Assessment Statement
FDNY	Fire Department of New York City
JPR	Jerome Park Reservoir
Reservoir District	Jerome Park Reservoir Historic District
JRAQ-REH	Jerome Reservoir and Aqueduct Rehabilitation
MOA	Memorandum of Agreement
NR	National Register
NSF	National Sanitation Foundation
NHP	Natural Heritage Program
NCA	New Croton Aqueduct
NCBA	New Croton Branch Aqueduct
NYCDOB	New York City Department of Buildings
NYCDEP	New York City Department of Environmental Protection
NYCDPR	New York City Department of Parks and Recreation
NYCDOT	New York City Department of Transportation
NYCPDC	New York City Public Design Commission
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
NYSOPRHP	New York State Office of Parks, Recreation, and Historic Preservation
OCA	Old Croton Aqueduct
PCE	Passenger Car Equivalent
S/NR District	State/National Register of Historic Places District
SWTR	Surface Water Treatment Rule
EPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

ATTACHMENT A:

A.1 Project Description

As a part of the overall plan to upgrade the infrastructure of the Croton Water Supply System, the New York City Department of Environmental Protection (NYCDEP) is proposing a project known as the Jerome Reservoir and Aqueduct Rehabilitation (JRAQ-REH) to improve the water quality, site safety, and maintain the functionality of the Jerome Park Reservoir (JPR).

The general project elements include:

- Abandonment and securing of part of the below ground portions of the Old Croton Aqueduct along the eastern portion of the JPR
- Abandonment and securing of the eastern outfall basin
- Repair of the eastern wall of the JPR
- Repair of the dam inlet archway and wing walls near Gatehouse No. 7
- Repair of the retaining wall adjacent to the Lehman College parking lot
- Installation of a fence and guiderail along the south eastern portion of the JPR
- Drainage improvements
- Roadway improvements

A.2 Project Location and Background

The JPR in the Kingsbridge Heights section of the Borough of the Bronx, New York City. It is bounded on the north and west by Sedgwick Avenue, on the east by Goulden Avenue, and on the south by Reservoir Avenue. The JPR is located east of Interstate Highway 87, the Major Deegan Expressway, and west of Jerome Avenue (see Figure 1: Location Map). The JPR property (Block 3246, Lot 1) falls within the Bronx Community District 8 (see Figure 2: Tax Map) and within a R6 residential zoning district where the JPR site primary land use being “Open Space & Recreation” (see Figure 3: Zoning Map; Figure 4: Land Use Map).

The JPR is an open air, concrete-bottom basin formed by vertical stone-masonry walls and an earthen embankment. The existing 1,500-foot-long concrete dividing wall forms two separate basins, the North Basin and South Basin.

The 125-acre site is owned by the City of New York and maintained by the NYCDEP. The site is part of the New York City Water Supply System and is used as a raw water holding facility. The water in the JPR is sent to the Croton Filtration Plant for treatment and distribution. Despite being in the land use category of “Open Space & Recreation”, the site is not accessible to the public.

The construction of the JPR was completed in 1906. The original design included a much larger site with an eastern basin and a western basin, but ultimately only the eastern basin, which serves as the current reservoir, was built.



Jerome Reservoir & Aqueduct Rehabilitation

Legend

- ◆ Site Access Point
- Site Boundary
- 400 Foot Boundary



0 300 600 1,200
Feet

Figure 1
Location Map
April 2017



Bronx Block: 3246

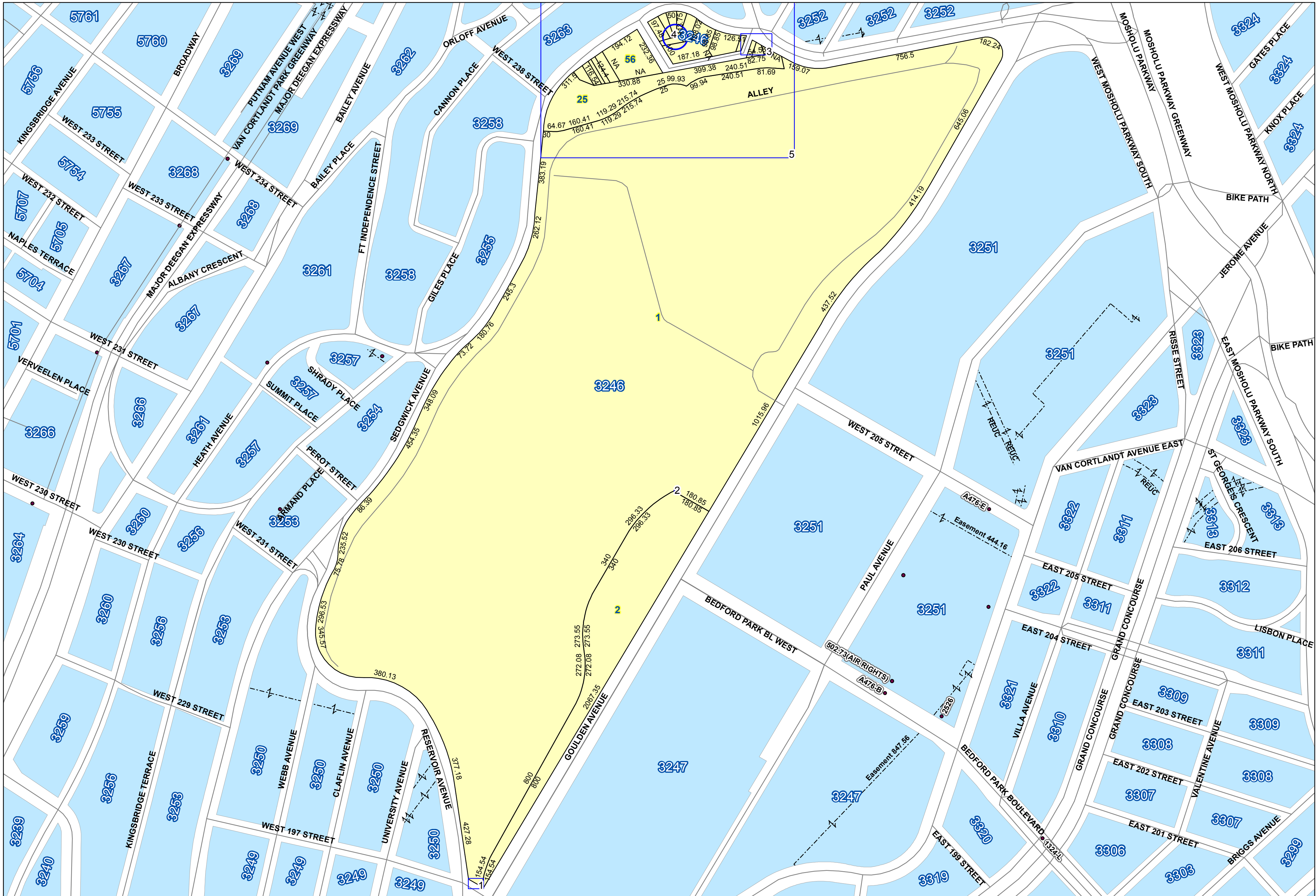
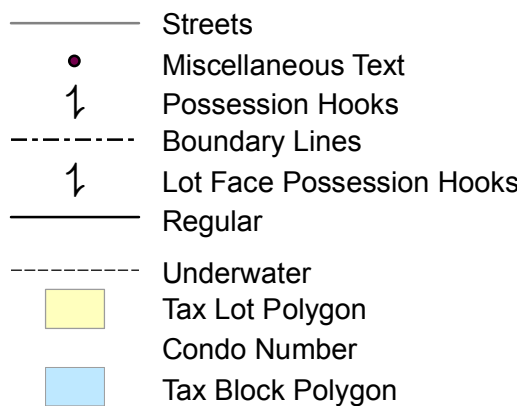
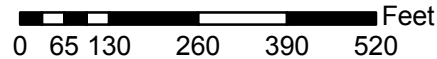
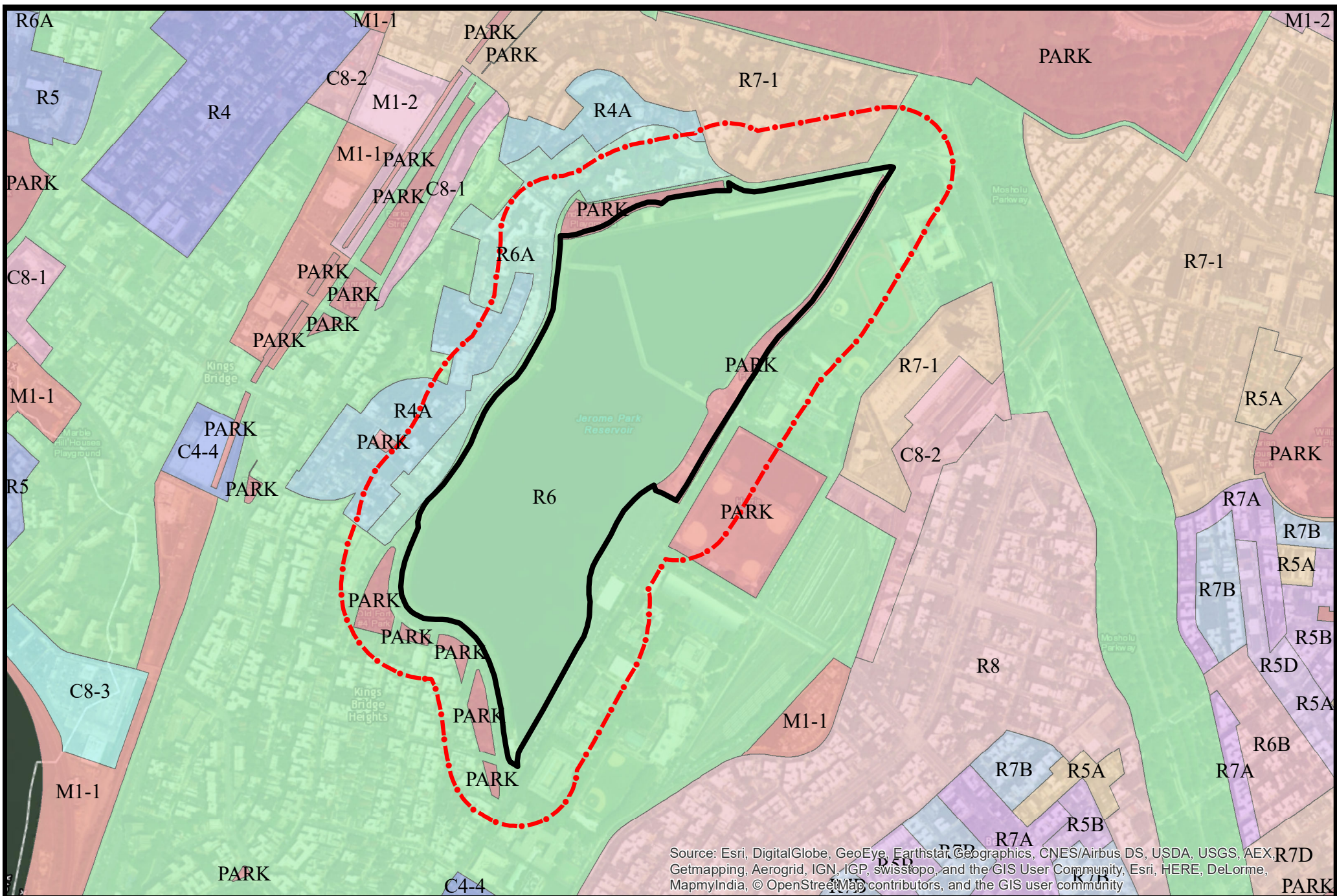
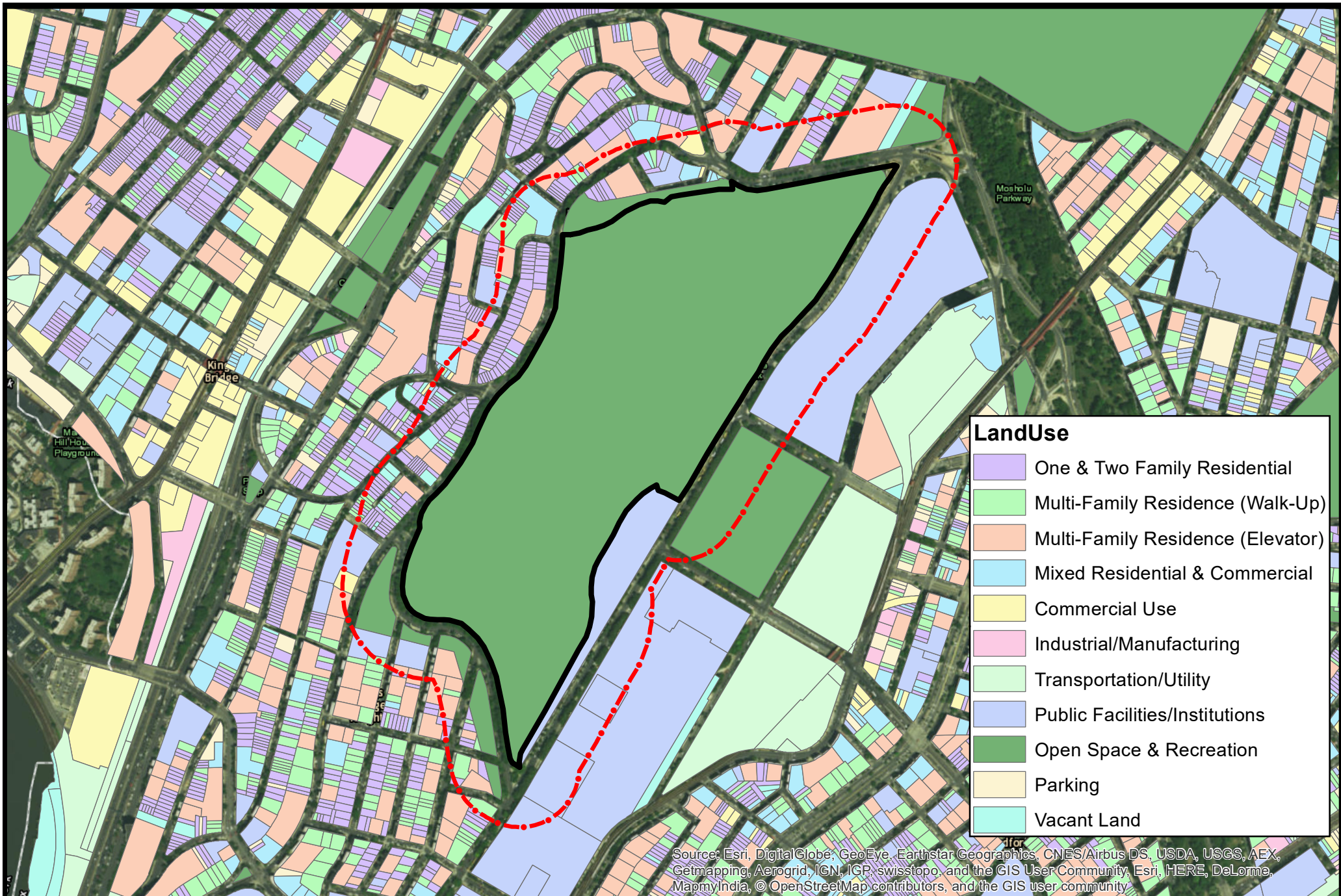


Figure 2 Tax Map April 2017





	Jerome Reservoir & Aqueduct Rehabilitation	Legend - Site Boundary 400 Foot Boundary	North Arrow Scale 0 300 600 1,200 Feet	Figure 3 Zoning Map April 2017
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Jerome Reservoir & Aqueduct Rehabilitation

Legend

- Site Boundary
- 400 Foot Boundary



0 300 600 1,200
Feet

Figure 4
Land Use Map
April 2017



Jerome Reservoir & Aqueduct Rehabilitation

Legend

-  Site Boundary
-  400 Foot Boundary
-  Coastal Zone Boundary

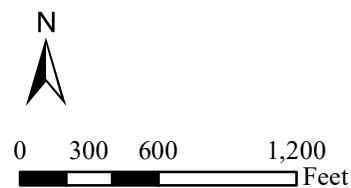


Figure 5
Coastal Zone Boundary Map
April 2017

The existing eastern wall of the JPR was originally intended to be the dividing wall between the eastern basin and the unbuilt western basin. The existing eastern wall has two distinct portions. The lower portion is approximately 13-ft and 6-in tall and the exposed face is composed of large rubble stone, backed up by cyclopean masonry and mass concrete. The upper portion is approximately 15-ft tall composed of exposed course dimensioned stone with mortar joints. Within the upper portions of this wall, there are two brick-lined aqueducts of horseshoe shape: the Old Croton Aqueduct (OCA), which is no longer in service as of 1955; and the New Croton Branch Aqueduct, which discharges into the southern end of the JPR through the south portal.

The JPR is surrounded by five water supply facilities, Gatehouses No. 2, 3, 5, 6, and 7, and a paved perimeter ring road. NYCDEP staff can access the JPR from Goulden Avenue through a manned guardhouse in between Gatehouse No. 5 and 6. Boat ramps are also available at the south-west end and north-west end of the JPR to access the south and north basins respectively.

A.3 Project Purpose and Need

The purpose of the project is to improve the service life of the JPR and enhance personnel safety by repairing deficient and potentially unsafe site conditions. This section details the areas of concern that would be addressed through the implementation of the proposed project.

A.3.1. Old Croton Aqueduct

Several areas of the OCA have deteriorated over time. The walls of the OCA show significant cracking and efflorescence buildup due to infiltration and exfiltration of water and poor freeze/thaw capabilities. The deterioration of the OCA contributes to the degradation of the eastern reservoir wall. The OCA is also a confined space that requires special training to enter for any purpose, making it difficult for NYCDEP staff to inspect or maintain.

A.3.2. Reservoir Eastern Wall

Due to the many years the JPR has been in service, climate impacts, physical weathering, and operational influences, the eastern wall has experienced significant degradation. There has been significant loss of joint material that has resulted in localized settlement or movement of the dimension stone and rubble stone as well as leaks both above and below the invert of the OCA. There has been substantial water transfer between the OCA and the reservoir through large cracks and damaged mortar joints. This, coupled with poor freeze/thaw capabilities of the reservoir wall, the repetitive reservoir drawdown and intermittent exposure to the elements has caused the wall to deteriorate substantially.

A.3.3. Dam Inlet Archway and Wing Walls

The exterior surface of the concrete around the inlet archway has continued to degrade with time. Areas that previously appeared to be in poor condition have since spalled and the surrounding concrete that had been previously repaired appears to be in poor condition. The wing walls surrounding the inlet appear to have cracked completely through the cross section in certain

locations and show signs of shifting. Some amount of earth fill may have eroded, resulting in the shift in the wall. There also exists a defunct steel walkway in the northeast corner of the reservoir, adjacent to the inlet.

A.3.4. Lehman College Retaining Wall

The conditions along the retaining wall adjacent to the Lehman College parking lot, on the east side of the reservoir site, indicate deteriorations in several areas and a more significant deteriorated area approximately 150 feet long.

A.3.5. Personnel Site Safety

Guiderail and fence improvements are needed to provide better safety protection for NYCDEP staff walking and driving around the perimeter of the reservoir. Roadway improvements are also needed to alleviate current ponding and icy roadway conditions.

A.4 Project Scope of Work

The following section outlines the anticipated scope of work for the proposed project.

A.4.1. Abandonment of the Old Croton Aqueduct

Construction:

The proposed abandonment and securing would include filling the entire cross section of the aqueduct with Controlled Low-Strength Material (CLSM, also known as flowable fill), from approximately 50 feet north of Gatehouse No. 7 to approximately 50 feet south of Gatehouse No. 6 for a total length of approximately 4,600 linear feet. This method would ensure the interior of the aqueduct is effectively sealed and structurally stabilized while eliminating the need for future inspection and maintenance.

An 18-inch to 24-inch thick reinforced concrete bulkhead would be constructed at each end of the aqueduct to encapsulate the filled area. North of Gatehouse No. 7, a 24-inch reinforced concrete pipe would be installed to collect the running water within the OCA and divert the flow to an adjacent sewer line near Sedgewick Avenue. The installation of the drainage pipe would require a temporary lane closure on Sedgewick Avenue. No additional repairs to the tunnel walls are included. The flowable fill material would conform to NYCDEP specifications and meet the National Sanitation Foundation's (NSF) 61 Standard requirements for safe use in potable water.

To fill the OCA, it would be necessary to construct a reinforced concrete bulkhead at the northern and southern end of the aqueduct. The flowable fill would be permitted to spread laterally under its own weight until full. Additional coring and filling locations may be spaced along the aqueduct at lengths dependent on specific factors such as the size/slope of the aqueduct, viscosity, material mix and time necessary for initial set.

A.4.2. Abandonment of the Eastern Basin Outfall

Construction:

In addition to the filling of the OCA, filling the unused Eastern Basin Outfall (EBO) would ensure that a potential source of infiltration water would be mitigated. The EBO is a tunnel below and east of the OCA. This tunnel is estimated to be 11 feet in diameter and approximately 2,100 feet in length. It begins at Gatehouse No. 5 and travels southward towards Gatehouse No. 6. However, it is believed to terminate short of Gatehouse No. 6 near Station 91+00 where it turns eastward and ends under the Lehman College parking lot. The EBO would also be filled with flowable fill. Due to the extra depth, access to the top of the tunnel may require some excavation. Several access or vent ports may need to be provided prior to filling. The current agreement between NYCDEP and Lehman College would need to be extended to access the EBO.

A.4.3. Reservoir Eastern Wall Repairs

Demolition:

To limit water seepage through the eastern wall and to mitigate water transfer through mortar joints, a cast-in-place concrete liner wall would be constructed against the existing eastern wall. The length of the liner wall from is from Gatehouse No. 5 to Gatehouse No. 7 (approximately 540 linear feet).

The mortar joints in the portion of the reservoir wall above the liner wall as well as in areas where it would not be installed would need to be repointed, and several stones may need to be reset. Damaged and deteriorated mortar from the selected areas and loose stones would be removed for grouting and resetting.

Construction:

The repair would include the construction of the 15-foot high liner wall along the existing east reservoir wall approximately 540 linear feet. The top of the liner wall would terminate 6-inch above the transition between the lower random rubble wall and the upper course dimensioned stone wall. Under normal operations, the liner wall would be below water.

The remaining length not covered by the new liner would be subject to repointing of deteriorated mortar joints and the resetting of loose or missing stones. The new mortar would have better weathering characteristics to add durability and provide a measure of waterproofing.

A.4.4. Dam Inlet Archway and Wing Walls Repairs

Demolition:

The limit of concrete demolition would be determined by an investigation into the existing conditions of the archway and wing walls. It is expected that, at a minimum, the surface concrete would need to be removed in order to expose sound concrete. At this time, the anticipated area of repair would encompass the majority of the vertical surface of the wing wall surface (approximately 3,300 square feet) as well as the lower portion of the area over the inlet archway. Demolition would be conducted chiefly by mechanical means, which may include use of a power chisel, scabblers, water blasting, grit blasting and saw cutting.

In addition to the local demolition of the concrete surface, there exists a defunct steel walkway in the northeast corner of the reservoir, just adjacent to the inlet. The walkway would be removed as part of the demolition work.

Construction:

The deteriorated areas would be reconstructed with a polymer-modified grout. Deteriorated surfaces areas would be roughened and restored with shotcrete reinforced with wire mesh. It may also be necessary to inject grout under pressure to fill voids in the backfill material behind the walls.

All newly placed concrete shall meet NSF 61 Standard requirements for safe use in potable water applications.

A.4.5. Lehman College Retaining Wall Repairs

Demolition:

The existing conditions along the Lehman College retaining wall indicate deteriorations in several areas and a more significant deteriorated area approximately 150 feet long. It is anticipated that the wall in this area would be removed and replaced with a new concrete wall in kind. The reuse and resetting the capstones that are topping the retaining wall in addition to replacement in-kind of any capstones broken during work would be done at the post demolition phase.

Construction:

The limit of the repair work would be determined in conjunction with the location of the fence-guiderail structural system, existing underground electrical duct bank, smart fence footing depths and locations, in addition to the anticipated replacement of an approximately 150 linear foot portion of the wall. The new section of the wall (reinforced concrete, cast-in-place, Class 45) would be located between existing wall joints. The salvaged capstones would be reset on top, along the entire length of the wall. The capstones that are broken during the demolition process shall be replaced in kind.

A.4.6. Fence and Guiderail Installation along the Eastern Portion of the Reservoir

The removal of the existing 10-foot chain-link fence along the top of the wall would be required for the installation of new box beam guiderail and fencing along the top of the wall. This existing 10-foot chain-link fence between Gatehouse No. 5 and 6 specifically would be replaced by a new, 4-foot, vinyl coated chain-link fence and new box beam guiderail.

A.4.7. Roadway Surface and Drainage Improvements

The existing perimeter road would be repaired or reconstructed in-kind as necessary to correct local deficiencies and drainage issues and to address damage that may occur during construction. The roadway between the guard house/entrance and Gatehouse No. 6 would be reconstructed in-kind and graded to the drainage system. The roadway design in this area this would also provide an alternate for an impervious layer to be installed under the gravel layer to prevent stormwater infiltration from affecting the OCA structure over time.

A.5 Potential Permits and Approvals

Below are lists of permits and approvals that may be required for the proposed project. They are organized by agency level (federal, state, local) and by agency.

A.5.1. State

- New York State Department of Environmental Conservation (NYSDEC)
 - Waste Transporter Permit
- New York State Department of Transportation (NYSDOT)
 - Divisible Load Overweight Permit (Form PERM 92)

A.5.2. Local

- New York City Public Design Commission (NYCPDC)
 - Conceptual Design Approval
 - Preliminary Design Approval
 - Final Design Approval
- New York City Department of Environmental Protection (NYCDEP)
 - City Environmental Quality Review Environmental Assessment Statement
 - Dewatering Permit
 - BWSO - Letter of Approval for Dewatering
 - BWT - Letter of Approval for Dewatering
 - Wastewater Quality Control Permit
 - Air Pollution - Work Permit
 - Asbestos Inspection Report Asbestos Project Notification (Form ACP7)
- New York City Department of Transportation (NYCDOT)
 - Construction Activity Permit
 - Oversize-Overweight Vehicle Permit
 - Sidewalk Construction Permit
- New York City Department of Buildings (NYCDOB)
 - Crane/Derrick/Mobile Work Platform Prototype Application (Form CD-1)
 - Crane/Derrick/Mobile Work Platform Approval and Operation Application/Certificate (Form CD-2 or Form CD-3)
 - Limited Use Application (Form CD-25, formerly On-site Waiver)
 - Sewer Self Certification Site Connection Proposal
 - Suspended Scaffold Application (Form CD-5)
- Fire Department of New York City (FDNY)
 - Compressed Gases
 - Liquid Oxygen
 - Portable Air Compressor
 - Storage/Use of Flammable and Combustible Liquids
 - Storage/Use of Pressurized Products
 - Torch Operations

- Department of Sanitation of New York City (DSNY)
 - o DSNY - Certification of Load Data
- Local Utilities
 - o Con Edison Consultation
 - o Keyspan Consultation
 - o Verizon Consultation
 - o Cablevision Consultation

A.6 Estimated Construction Schedule

Construction is anticipated to begin in November of 2018 and substantially completed by May of 2023.

ATTACHMENT B:

This attachment contains an analysis of categories identified in Part II: Technical Analysis section of the Environmental Assessment Statement (EAS) Full Form as requiring further assessment.

The proposed project's potential impacts to the following technical categories do not meet or exceed the thresholds presented in the City Environmental Quality Review (CEQR) Technical Manual (2014); therefore, no additional analyses are provided herein:

- Land Use, Zoning, and Public Policy
- Socioeconomic Conditions
- Community Facilities
- Open Space
- Shadows
- Solid Waste and Sanitation Services
- Energy
- Transportation
- Air Quality
- Noise
- Public Health

B.1 Historic and Cultural Resources

The Jerome Park Reservoir is a man-made structure that was constructed between 1895 and 1905 and has a capacity of approximately 773 million gallons of water. Currently, it is fed by the New Croton Aqueduct (NCA) but the former water conduit, the Old Croton Aqueduct (OCA) is also a part of the east wall of the Reservoir. While the original OCA predates the Reservoir by 60 years, it was reportedly disassembled and reconstructed to the west of its original location so that it sits parallel to the New Croton Branch Aqueduct (NCBA) within Reservoir's eastern perimeter wall. The OCA National Register (NR) form concurs that the feature was disassembled and moved and what exists now dates to ca. 1899.

The reservoir and surrounding structures (i.e. gatehouses) are recognized as a State/National Register of Historic Places District (S/NR District). The OCA and the NCA are also S/NR-listed properties and the OCA was designated a National Historic Landmark in 1992. The JPR complex is a substantial and significant presence in the community, including both above- and below-grade resources related to the early engineering of the city's water system.

B.1.1 History and Significance of the Jerome Park Reservoir¹

The Jerome Park Reservoir is an important element in New York City's water system; its construction in the early twentieth century reflects the evolution of the water system as the city expanded. The JPR is the oldest system supplying water to New York City and is the one closest to the city. The major architectural features of the JPR structure itself are low ring walls of massive rock-faced, stone blocks. On the west side and on much of the north side, the reservoir wall is built above the level of the street, and the water is not visible. Physically, the basins of the reservoir are set apart from their surroundings. Much of the perimeter wall is raised above eye-level, and its use and design are different from that of the surrounding neighborhood. It is, however, a structure that due to its scale and placement in the area is a defining element of the neighborhood.

The construction of the JPR basin, as we see it today, was completed in 1906. Critical to understanding the placement of gate house chambers and the changes to the JPR over time is an appreciation of the original design. First proposed ca. 1884 as a part of the construction plans for the New Croton Aqueduct system, it was to function as a receiving and distributing reservoir to ensure the city of at least a 10-day consumption source. The design flow was 50 million gallons a day. The location, on the grounds of the Jerome Park Racetrack, was selected in 1885 due to its elevation. The plans specified construction of the reservoir bottom at an elevation that would guarantee gravity flow into the reservoirs in Central Park in Manhattan. *“A study of the available topographical maps showed that Jerome Park and vicinity contained the only site in the Annexed District [24th Ward aka the Bronx] at the proper elevation for the construction of such reservoir”* (DWSG&E 1907). Construction plans did not move forward for many years.

When the contract for the proposed reservoir was first circulated in 1894, the planned capacity was 1.5 billion gallons, corresponding nominally to seven and one-half days' drinking water supply for the City. However, by 1895 the plans and specifications were amended to increase the capacity to two billion gallons. As envisioned at that time, the JPR was to be comprised of an easterly and westerly basin, with a massive stone dividing wall running the north-south length of the entire reservoir. The north-south division wall would support a new conduit to replace the old aqueduct (OCA), and a new aqueduct (NCA) was to pass approximately 100 feet beneath the reservoir. A series of shafts and tunnels would connect the flow of water between the basin and aqueducts. (DWSG&E 1907)

Construction, under the supervision of John B. McDonald of McDonald & Onderdonk, was not completed in 1902 as originally scheduled. By that year, the contract was amended again to the following reduced capacity: easterly basin, 1.13 billion gallons and the westerly basin, 773.4 million gallons. When the JPR was officially opened in 1906 only the smaller westerly basin was completed and functioning.

¹ The Jerome Park Reservoir (JPR) has been the subject of several cultural resource investigations completed by Historical Perspectives, Inc. (HPI) in conjunction with the federally mandated construction of a Croton Water Filtration Plant to treat the New York City's Croton water supply. Primary documentary research was originally undertaken in 1994 and updated in 1998. Subsequent research and field investigations provide for a comprehensive history of this resource, much of which is repeated herein (HPI 1994, 1998, 2010).

The second basin, east of the division wall, was still planned at that time, and the land was cleared and partially excavated in preparation for construction. Two Gatehouses, Nos. 4 and 6, were first erected well east of what is now the eastern ring wall of the reservoir on the assumption that the proposed two-basin reservoir would be completed. In 1912, the two-basin plan was officially abandoned, and the excavated area of the east basin was eventually filled and graded. The site was turned over to the City for other uses and it was later developed with Lehman College, a subway yard for two subway lines, three high schools, a park, and several public housing developments.

Because of the abandonment of the east basin plans, Gatehouses Nos. 4 and 6, which were subterranean systems in 1906, never functioned. Gatehouse No. 4 was eventually abandoned. Gatehouse No. 6 was rebuilt, and the control chambers and valves moved to the southern tip of the west basin where it stands today.

Extant architectural features of the JPR complex include the brick gatehouse superstructures. Two of these, Gatehouse No. 5 on Goulden Avenue at West 205th Street, and Gatehouse No. 7 at the corner of Goulden Avenue and Sedgwick Avenue, are substantial structures, while the others are smaller buildings. Gatehouses were built to manage and control the proper distribution and handling of water. Their substructures, buried below grade, host the vital piping and pumps necessary to maintain the required water flow. Visible to the public on today's landscape are the gatehouse superstructures which serve as above-grade access structures for the piping and pump mechanisms. Although the JPR was completed in 1906, none of the superstructures were erected at that time. In 1938, brick and stone Art Deco designs were prepared for Gatehouses Nos. 2, 5, and 7 and funds became available for construction.

The east-west dividing wall that currently separates the north and south basins was built in the 1980s as part of a water quality improvement plan. The top of the wall serves as a road to connect the west side of the JPR with Shaft No. 21 and the east side of the JPR. Approximately the top 10 feet of the wall is faced with rock face granite to match the perimeter wall (NR Nomination Form 2000).

As concluded on the NR-nomination form (2000),

“The Jerome Park Reservoir is a significant example of late nineteenth and early twentieth century civic architecture and engineering in the Bronx which retains a relatively high degree of integrity of location, design, setting, materials, workmanship, feeling, and association. Its historic park-like surroundings further add to the period integrity of the reservoir.”

B.1.2 Proposed Project Impacts

Subsequent to the S/NR listings, the NYCDEP entered into a Memorandum of Agreement (MOA) with the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) in July 2000 concerning the continued operation of the Reservoir and upgrades needed in conjunction with the construction of the Croton Water Filtration Plant. In this agreement, NYSOPRHP acknowledged that the JPR is an integral part of NYC's water supply system and that NYCDEP has in the past, and would, in the future, require the rehabilitation, modification, upgrade and/or

expansion of structures or appurtenances. A review procedure for activities involving significant alterations to the site is outlined in the MOA.²

As per item III of the MOA, the Review Procedures for Activities Involving Significant Alterations to Listed Surface Structures, the NYCDEP continues to submit architectural and site improvement drawings for ongoing projects. For the currently proposed project, documents were submitted to the NYSOPRHP for review in 2015 and modified in 2016. NYCDEP received formal responses from NYSOPRHP on October 9th, 2015 and October 11th, 2016. NYSOPRHP noted that the proposed rehabilitation project constitutes a significant modification to the Reservoir but approved the proposed work based on three conditions. The No Adverse Effect conditions, as noted in the NYSOPRHP letter of 10/11/16, are:

- 1) The cast-in-place concrete buttress wall proposed to be constructed against the existing east reservoir wall shall, under normal operations, be below the water line.
- 2) For any of the proposed work where a “new capstone” is proposed; the new capstone shall match the historic.
- 3) The Old Croton Aqueduct (OCA) and the East Basin Outlet would be recorded prior to being filled with flowable fill. The report shall include written documentation of the OCA and East Basin accompanied by photographs illustrating the construction details and materials. The OCA and East Basin are significant for this engineering and the report and photographs should focus on the significant period construction and engineering methodologies and techniques.

Both responses are included in Attachment C. The following sections would highlight specific project elements with potentially significant impacts and the measures NYCDEP would implement or have already implemented to mitigate impacts.

Abandonment of the Old Croton Aqueduct

As mentioned in Attachment A, the abandonment effort of the 1899 portion of the OCA within the eastern wall would entail filling the entire cross section of the aqueduct with flowable fill. The 1899 OCA adjacent to the New Croton Branch Aqueduct in the east wall would be directly impacted by the proposed action. However, the abandonment provides for increased, long term stability of the JPR and allows for the architectural and engineering characteristics of a portion of the National Historic Landmark to be maintained in situ. The abandonment in place also preserves the post-1899 relationship of the OCA to the JPR and the NCA.

The adverse impact resulting from the abandonment is the permanent alteration of the interior finish of the 1899 section of the OCA, and the original intended function of the aqueduct would no longer be possible. Although the archives have proven to be less than absolutely complete in detailing the construction of the JPR, there are considerable files, drawings, and photographs of

² The MOA also states that the NYSOPRHP acknowledges that the NYCDEP has determined, through an extensive archaeological survey conducted as part of the Environmental Impact Statement (EIS) completed for the Croton Water Filtration Plant, that the Reservoir site does not contain archaeological resources that would require further review. Therefore, the proposed project would not result in the potential for significant adverse impacts on archaeological resources and no further examination is necessary.

the construction and years of maintenance of the total complex. Additional archival recordation of the OCA prior to infilling and final abandonment is impossible based on the infill method.

The NYSOPRHP has reviewed the proposed buttress wall in compliance with the established MOA. The agency has opined that the proposed treatment of the 1899 east-wall section of the OCA is not an adverse effect.

Abandonment below ground portions of the East Basin Outlet

The East Basin Outlet is one of two circular tunnels below and east of the OCA within the east wall of the Reservoir, south of Gatehouse No. 5. The two tunnels are each assumed to be 11 feet in diameter and approximately 2,100 feet in length. They begin at Gatehouse No. 5 and travel southward towards Gatehouse No. 6. Today, the tunnels terminate at the South Portal, which feeds the extant west basin of the Reservoir. However, the original extension of the East Basin Outlet tunnel is believed to terminate short of Gatehouse No. 6 near station S21+00 where it turns eastward. The East Basin Outlet tunnel, which was intended to feed the unrealized east basin but was abandoned, “*is now buried under the Lehman College parking lot along Goulden Avenue*” (NR Nomination Form 2000).

The abandoned East Basin Outlet tunnel in the east wall south of Gatehouse No. 5 would be directly impacted by the NYCDEP proposed action. The adverse impact of the abandonment is the permanent alteration of the interior finish of the outlet tunnel. However, the NYCDEP’s plan provides for the increased, long-term stability of the Reservoir and allows for the architectural and engineering characteristics of an element of the NR Reservoir District to be maintained in situ. The abandonment in place also preserves the engineering approach to the original intent of the Reservoir – an east and west basin.

Archival recordation of the East Basin Outlet tunnel prior to infilling and final abandonment is impossible based on the infill method. However, there are numerous archival files, drawings, and photographs of the construction and years of maintenance of the total reservoir complex, including the East Basin Outlet. The state review agency has opined that the proposed treatment of the 1899 east-wall section of the OCA is not an adverse effect.

Reservoir Eastern Wall Repairs

The JPR’s “*massive ancient Roman-inspired basin walls*” are a significant element of the historic complex (NR Nomination Form 2000). The eastern wall, running parallel to Goulden Avenue, holds both the OCA and the NCA along with conduits intended to supply the reservoir basins. Between Gatehouses No. 5 and No. 7, the east wall is 30 feet wide with the two aqueducts side-by-side; south of Gatehouse No. 5, the east wall is 35-foot thick at the base with the OCA running on top of the NCA (NR Nomination Form 2000). “*Within the basin, the lower portion of the eastern wall is constructed of large blocks and stone excavated at the site, and the upper portion consists of the rock-face granite of the OCA, laid with broken range and random range jointing. The coping stones are rough-pointed with a tooled margin*” (NR Nomination Form 2000).

To meet the intent of the MOA and mitigate potential adverse impacts occurring on the eastern wall during the repairs, stones would be replaced “in kind” as per the Secretary of the Interior’s

Standards for Rehabilitation and grout color, texture, and application method would match that of the original eastern wall.

The NYSOPRHP has reviewed the proposed repairs in compliance with the established MOA. The agency has opined that the repairs would not constitute an adverse effect as long as the new buttress wall is under the water line during normal operations.

Replacement of the interior fence between Gatehouse Nos. 5 and 6

Secure fencing is a necessity for water quality control and public safety. Currently, a standard, tall chain link fence runs along the entire north and south basin walls. In fact, there are two sets of chain link fences; one immediately at the top of the reservoir basin wall, which is the one to be replaced, and one running along the outside of the perimeter road. There is no guiderail currently along either side of the perimeter road, however. [Insert reference to photo of existing conditions.]

The proposed replacement of the existing chain-link fencing on the inside of the perimeter road from south of Gatehouse No. 5 to Gatehouse No. 6 does not adversely impact the historic character of the Reservoir Historic District since it represents the replacement of an existing site element. As noted by the NYSOPRHP, the replacement of capstones would not be an adverse impact as long as the MOA stipulation for “in kind” replacements is followed.

There is no guiderail currently on the perimeter road and the proposed improvement would introduce a modern necessary safety feature onto the landscape. However, the guiderail would be partially obscured by the existing chain-link fencing that already visually separates the public along Goulden Avenue from the basin wall.

Since the guiderail is a necessity for safety reasons, it must be added to the complex. However, the MOA provides a framework for selecting newly introduced features, such as the guiderail, that would minimize discordant visual impacts. The MOA ensures that materials and the design for this new element would be selected to maintain harmony with the surrounding area and minimize visual intrusiveness.

B.1.3 Alternatives Analysis

In January 2017, an Alternatives Analysis was prepared to establish the existing conditions, clarify the project needs, and evaluate the available rehabilitation options within a framework of preferred engineering solutions. The Alternatives Analysis is included in this document as Attachment E.

The proposed repairs and rehabilitation of the Reservoir are necessary to maintain, secure, and improve the city’s water supply system, which is the responsibility of the NYCDEP. The repairs and improvements are critical but will not introduce new elements to the Reservoir or impact visible, significant features of the Reservoir. Installation of a low-profile guiderail along the perimeter service road is a new element but is needed for safety.

As discussed in depth in the Alternatives Analysis, two proposed new treatments have been analyzed and alternative actions have been reviewed to ensure that the Reservoir integrity is maintained.

- Reservoir Eastern Wall Repairs
 - One alternative design was a robust, battered wall seven feet thick at the footing that required removal of a portion of the basin floor. The preferred alternative, which is also less expensive, is a 16-inch thin concrete liner wall that extends only to the top of the basin slab.
 - The preferred alternative is the installation of a limited concrete liner wall.
- Abandonment of the OCA and the EBO
 - The alternatives analysis compared infilling with structural concrete and with Controlled Low Strength Material (CLSM), referred to as flowable fill. The flowable fill alternative is estimated to cost less than the structural concrete alternative.
 - The preferred alternative is the infilling of the OCA and the EBO with flowable fill.

B.2 Visual Resources

The proposed improvements would not affect properties within the public viewshed. The Reservoir Eastern Wall work would occur in the JPR basins and may require the use of mobile cranes. Any impact to the public viewshed from mobile cranes would be temporary. Also, due to the retaining walls, the height of the basin walls, the prior topographic changes to the land mass east of the JPR, and the two layers of tall chain link fencing surrounding the water, public views of the JPR basins are limited and it is likely that the construction would be screened by the site features. Therefore, no significant adverse impacts related to urban design and visual resources are anticipated to occur as a result of the proposed project.

B.3 Natural Resources

B.3.1 Wetlands, Waterways, and Floodplains

The NYSDEC classifies the JPR as a Class “AA” water body. NYSDEC Class “AA” waters may be used as a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. There are no wetlands, navigable waterways, or floodplains located on site or in the immediate vicinity. The reservoir is not a lake, river, or stream and is not near the waterfront or coastline (See Figure 5 Coastal Zone Boundary Map). It is an artificial municipal raw water holding facility that is not accessible to the public. Stormwater handling at the site would be enhanced by the proposed project. The drainage system would improve the existing stormwater drainage pattern for the site.

Thus, there would be no significant adverse impacts to wetlands, waterways, or floodplains.

B.3.2 Threatened or Endangered Species

NYCDEP submitted a request for an official species list to the United States Fish and Wildlife Services (USFWS) on September 20th, 2016. The official species list includes species that are designated as federally threatened or endangered species which may occur or could be potentially

impacted by the proposed project. The list is included in Attachment C. Only one threatened species was identified: Piping Plover (*Charadrius melodus*). However, no critical habitats were identified within the site. Additionally, as the reservoir is an open freshwater basin with sparse grasses and shrubs and impervious surfaces, it is unlikely to be a suitable habitat for shorebirds such as the Piping Plover.

Thus, no significant adverse impacts to threatened or endangered species are anticipated to occur as a result of the anticipated project.

B.3.3 Rare or State-Listed Species

NYCDEP submitted a request for project review to the NYSDEC Natural Heritage Program (NHP) on September 6th, 2016 regarding rare or state-listed animals and plants, and significant natural communities at JPR or within its immediate vicinity. NHP issued a response on October 6th, 2016 indicating that there is one endangered plant in the vicinity of the site, in addition to twelve rare plants that have historical records as occurring in the vicinity of the site. This response is included in Attachment C.

The endangered plant listed by NHP as occurring near the site is the Field Beadgrass (*Paspalum laeve*). Field Beadgrass is listed as endangered and critically imperiled in New York State. According to NHP's Online Conservation Guide for Field Beadgrass, the plant's habitat includes damp meadows, fields, mowed roadsides, mowed grounds, and lawns. The main threats to Field Beadgrass populations are improper mowing regimes that can reduce plants by mowing too often, or increase competition if not mowing often enough. The last sighting of Field Beadgrass occurred in 1994 in Van Cortlandt Park, and Field Beadgrass was not identified in the previous field surveys. No changes to the site that would improve the likelihood of introducing Field Beadgrass have occurred. Therefore, it is unlikely that Field Beadgrass currently exists on the JPR site.

There are no records after 1938 for any of the twelve rare plants with historical records listed in NHP's report, so it is very unlikely they occur in the vicinity of the site. Additionally, since the construction of the JPR was completed in 1906, the any plants last sited prior to 1906 are very unlikely to occur on the JPR site due to past construction disturbance. This includes:

- Hyssop-skullcap (last sited 1901)
- Woodland Agrimony (last sited 1895)
- Rough Avens (last sited 1895)
- Prairie Wedgegrass (last sited 1890)
- Swamp Oats (last sited 1913)
- Glaucous Sedge (last sited 1897)
- Swamp Lousewort (last sited 1915)
- Marsh Straw Sedge (last sited 1899)
- Yellow Flatsedge (last sited 1938)
- Great Plains Flatsedge (last sited 1897)
- Bent Sedge (last sited 1897)
- Stiff Tick-trefoil (last sited 1898)

All thirteen of the endangered or threatened plants were sited in Van Cortlandt Park. However, Van Cortlandt Park would not be disturbed by the proposed project and is approximately 750 feet away. Additionally, no site clearing is anticipated to occur on the project site. Therefore, it is not anticipated that there would be any significant adverse impact on rare or state-listed species resulting from the proposed project.

B.4 Hazardous Materials

NYCDEP does not anticipate disturbing or introducing any hazardous materials during the undertaking of the proposed project. A number of hazardous materials assessments and remediation efforts have been conducted on the structures within the Jerome Park Reservoir property in the past. As a result, most, if not all, hazardous materials have been remediated or removed in accordance with federal, state, and City requirements.

However, if any hazardous materials are discovered, they would be removed, transported from the JPR property, and disposed of prior to the commencement of any demolition work in a manner consistent with federal, state, and City regulations. Any hazardous materials in the Jerome Park Reservoir structures would be self-contained and unlikely to pose a threat to public health and safety since access to the property is restricted.

Thus, no significant adverse impacts related to hazardous materials are anticipated to occur as a result of the proposed project.

B.5 Water and Sewer Infrastructure

Although the proposed project is directly related to fresh water supply infrastructure, NYCDEP does not anticipate any disruption in service to the community due to the proposed project activities. The construction would be restricted such that no disruption to water supply or the operations of the Croton WTP would occur. All proposed construction activities and sequencing would be subject to approval by the NYCDEP Bureau of Water Supply. The project is part of the overall plan to repair and upgrade the infrastructure of the Croton water supply system that would result in an improvement to the provision of water supply. The various structural repairs and the securing and abandoning the unused OCA and eastern outfall would improve the service life of the JPR, protect water quality, and enhance personnel safety.

No potentially significant adverse impacts related to water and sewer infrastructure are anticipated to occur as a result of the proposed project. Instead, it is anticipated that positive impacts would occur.

B.6 Construction

Construction of the proposed project would last for a period of approximately 3 years. The proposed project construction duration will overlap with the construction of another preceding project, CRO-521 Jerome Park Gatehouse Architectural Restoration, from November 2018 to November 2020. Despite the construction overlap, the construction contractors would not be

working in the same areas simultaneously due to operational constraints. Since the CRO-521 work is associated with the western side of the site and the proposed JRAQ-REH work is associated with the eastern side of the site, the CRO-521 and JRAQ-REH contractors would most likely be working on opposite sides of the basin at any given time. Both contractors would use different existing access points to the site on Goulden Avenue, Reservoir Avenue, and Sedgwick Avenue (Figure 1: Location Map). All construction and staging would take place on site and within the JPR gates, except for the OCA drainage pipe work that will require a temporary lane closure on Sedgwick Avenue and the EBO work that will occur within the Lehman College parking lot. All proposed construction activities and sequencing would be subject to approval by the NYCDEP Bureau of Water Supply. Potential construction equipment may include, but is not limited to, a mobile crane, temporary generators, and ancillary equipment to support the application of concrete and flowable fill.

B.6.1 Construction Related Transportation

Construction of the project would neither take place in a Central Business District (CBD), nor along a major thoroughfare or arterial road. The proposed construction would not result in the closure, narrowing or impediments along or on moving traffic lanes, roadways, key pedestrian facilities, sidewalks or crosswalks. Multiple access points to the site would be available to the contractors such that traffic would not be concentrated in one particular area. During the OCA drainage pipe work, up to 11 street parking spaces on Sedgwick Avenue would be temporary closed for approximately 44 days. For the EBO work, DEP would coordinate work schedules with Lehman College and the High School for American Studies to minimize any potential parking impacts. No other parking lanes, offsite parking spaces, bicycle routes and pedestrian facilities would experience any type of closure, narrowing, or impediments due to the proposed construction. It is anticipated that 3 – 5 truck vehicle trips would be generated by the CRO-521 project and 5 – 10 truck vehicle trips would be generated by the proposed project. A cumulative 10 – 15 truck vehicle trips would be generated per day to and from the site during construction. The cumulative truck vehicle trips would be split between the three access points. Additionally, the project would not alter existing pedestrian or vehicular traffic patterns in the vicinity. Therefore, construction-related traffic and staff vehicles are not anticipated to result in significant adverse impacts to traffic.

B.6.2 Construction Related Air Quality

The nearest residential structures to the project site are located along the west side of Sedgwick Avenue approximately 150 feet west of the JPR property. There are schools, including the High School for American Studies, Lehman College, Bronx High School of Science, and DeWitt Clinton High School, less than 150 feet away from the proposed project site. Multiple access points to the site would be available to the contractors such that traffic would not be concentrated in one particular area to mitigate any potential for air quality impacts. In order to minimize any potential impacts to air quality related to mobile sources, the following measures would be implemented:

- Construction would be scheduled to occur at off peak hours (7 am to 4 pm) in order to minimize traffic congestion.
- Construction vehicles would be required to minimize idling at the site.
- Diesel-fueled equipment would be required to comply with the City's Local Law 77 requiring the use of ultra-low-sulfur diesel fuel and Best Available Technologies to reduce air emissions.

Fewer than 50 passenger car equivalent (PCE) vehicle trips would be generated as a result of the proposed project during peak travel hours. Equipment abiding by the measures listed above would not generate significant emissions. Thus, the proposed project is not anticipated to result in any significant adverse impacts due to construction-related air quality.

B.6.3 Construction Related Noise

The nearest residential structures to the project site are located along the west side of Sedgwick Avenue approximately 150 feet west of the JPR property. There are schools, including the High School for American Studies, Lehman College, Bronx High School of Science, and DeWitt Clinton High School, less than 150 feet away from the proposed project site. The CRO-521 and JRAQ-REH contractors would most likely be working on opposite sides of the basin at any given time. Multiple access points to the site would be available to the contractors such that noise would not be concentrated in one particular area. DEP would also coordinate work schedules with the nearby schools in order to minimize potential noise impacts. In order to minimize any temporary noise impacts resulting from construction equipment and vehicle operations on the nearby community, both contractors would be required to implement the following measures:

- All work would be restricted to daytime hours (7 am to 4 pm).
- Construction vehicles and equipment would be required to meet the minimum noise emission standards in the New York City noise code.
- Construction vehicles would be required to minimize idling and backing up at the site.
- The contractors would be required to develop a noise mitigation plan, which could include noise attenuation measures such as portable noise barriers or noise curtains and mufflers.

Therefore, the proposed project is not anticipated to result in significant adverse impacts related to construction-related noise.