FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE CROTON WATER TREATMENT PLANT AT THE HARLEM RIVER SITE

7.3. VISUAL CHARACTER

7.3.1. Introduction

This section describes the effects of the proposed Croton Water Treatment Plant project (Croton project) on the existing visual quality and design characteristics that include building types, heights, materials, and topography and vegetation if the water treatment plant were to be built at the Harlem River Site. The analysis includes a study area of roughly one-half mile around the water treatment plant site. The methodology used to prepare this analysis is presented in Section 4.3, Data Collection and Impact Methodologies, Visual Character.

7.3.2. Baseline Conditions

7.3.2.1. Existing Conditions

Water Treatment Plant Site. The Harlem River Site is situated adjacent to the Harlem River, with the river to the west and Exterior Street, the Metro-North Rail tracks, and the Major Deegan Expressway to the east. The water treatment plant site is bounded to the north by West 225th Street/Kingsbridge Road and to the south by the West Fordham Road/University Heights Bridge (Figure 7.3-1). Currently, the water treatment plant site is occupied by the New York City Department of Transportation (NYCDOT), Consolidated Edison Company of New York, Inc. (Con Edison), the Storage Post self-storage facility (former site of the Butler Lumber Co. Inc.), XCEL Ready Mix Concrete batch plant, and Consolidated Rail Corporation (CSX).

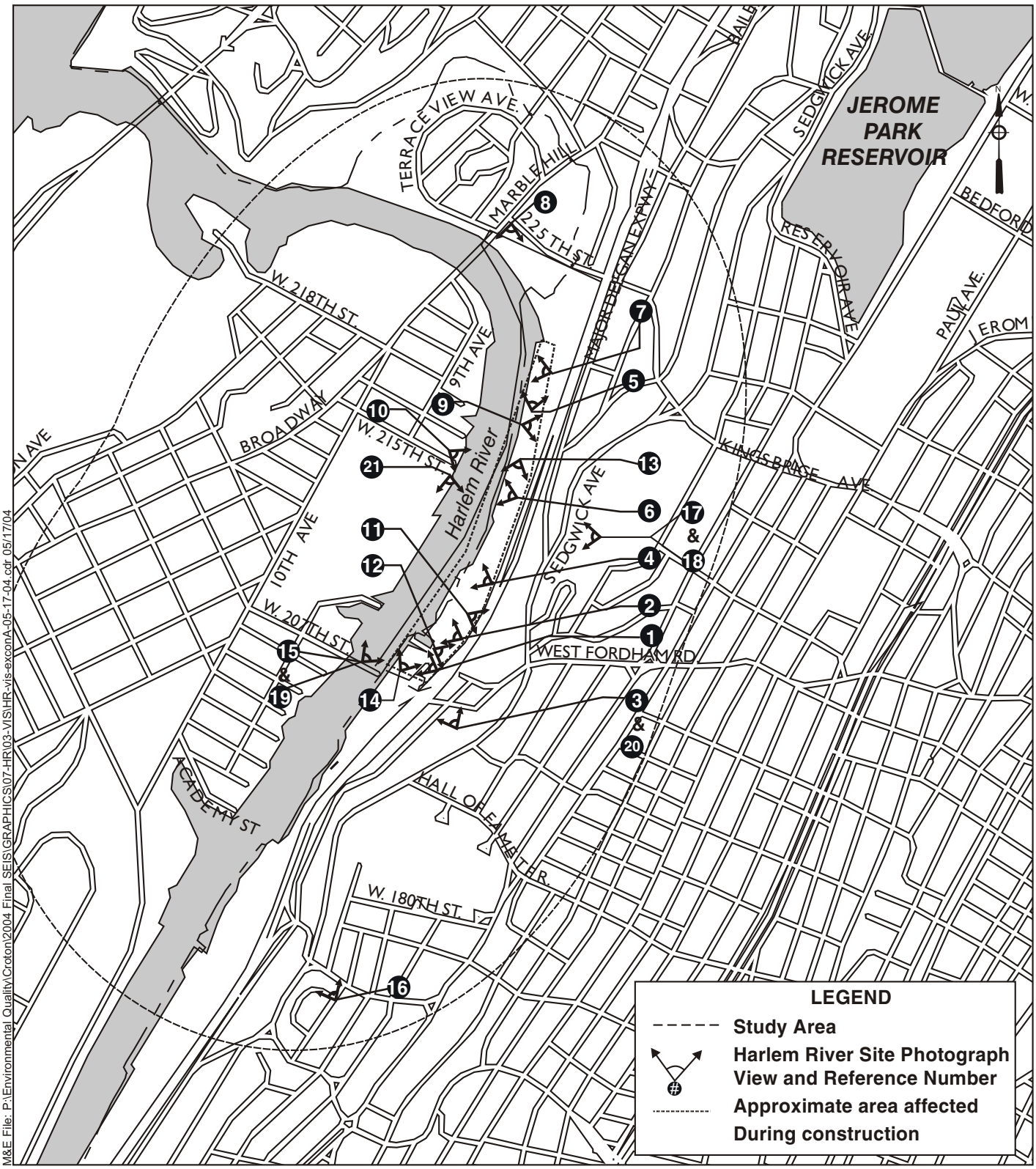
The parcel of the water treatment plant site immediately to the north of the University Heights Bridge (NYCDOT property) is used as a storage area by NYCDOT. The property is partially littered with rubbish (Photograph 1, Figure 7.3-2). To the north of this parcel, another vacant parcel of land exists (Con Edison property) that is enclosed by a chain link fence (Photograph 2, Figure 7.3-2). This piece of land is partially overgrown with vegetation. The self-storage facility is currently under construction (previously the Butler Lumber Company). The predominant features of the facility are the remains of the Butler Lumber Company facilities (Photograph 3, Figure 7.3-3). This location is also partially enclosed by a chain link fence. The next property to the north is the XCEL Ready Mix concrete facility (the batch plant) (Photograph 4, Figure 7.3-3). This plant is comprised of a batching plant, loading facility, and a truck wash down area. Stacks of large concrete bricks are located around its perimeter. The area around the batch plant (roads, vegetation) is covered with a layer of fine dust. An open sand and gravel storage facility (on CSX property) is located to the north of the batch plant. Mounds of gravel and sand are situated within the boundaries of this parcel (Photograph 5, Figure 7.3-4). The remains of a pier or docking facility are also located at the edge of the Harlem River near the open sand and gravel storage facility.

Study Area. The study area encompasses a highly urbanized environment. This environment is composed of residential buildings, as well as commercial and institutional facilities. New York City sanitation and transit facilities, located in the western portion of the study area in Manhattan, are observable from the water treatment plant site (Photograph 6, Figure 7.3-4). The Broadway Bridge, the River Plaza development construction, and the Marble Hill apartment complex are visible to the north of the water treatment plant site (Photographs 7 & 8, Figure 7.3-5). Train tracks and the Major Deegan Expressway can be seen along the eastern

border of the water treatment plant site; some mature trees are located between the tracks and the expressway (Photograph 9, Figure 7.3-6). To the east of the expressway, the terrain rises steeply; residential, institutional, and commercial buildings are located within this portion of the study area. Major institutions within this area include the U.S. Veterans Administration Hospital (Photograph 10, Figure 7.3-6). Low- and high-rise apartment buildings are also located within the eastern and southern portions of the study area (Photograph 11 and 12, Figure 7.3-7). The Bronx Community College, one of several educational facilities in the Bronx, is located to the southeast of the water treatment plant site (Photograph 13, Figure 7.3-8). A view of the water treatment plant site from West Fordham Road is presented in Photograph 14 (Figure 7.3-8).

Along the southern edge of the project site, the University Heights Bridge provides views of the waterfront along the parcel (Photograph 15, Figure 7.3-9). This view shows the concrete shoreline along with debris and vegetation along the parcel's waterfront. The concrete batch mixing facility is visible to the north as well as the remains of the Butler Lumber Company that has been dismantled recently, after the parcel was purchased by the Storage Post. Also visible from the University Heights Bridge, is the access road to the parcel, while further away several large developments can been seen. Included in these are a subway yard in Upper Manhattan and the Fordham Hill Oval cooperative apartments.

The Harlem River is an important visual resource located within the study area. The River is visible and accessible from most parts of the water treatment plant site. The river can also be seen from portions of the Major Deegan Expressway in the Bronx and from some vantage points to the east of the study area, where the topography rises noticeably in elevation. In the Manhattan portion of the study area, the Harlem River is visible from the nearby roadways and from areas on the perimeter of the study area that are higher in elevation.



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Not To Scale

Visual Character
Harlem River Site

Croton Water Treatment Plant

Figure 7.3-1

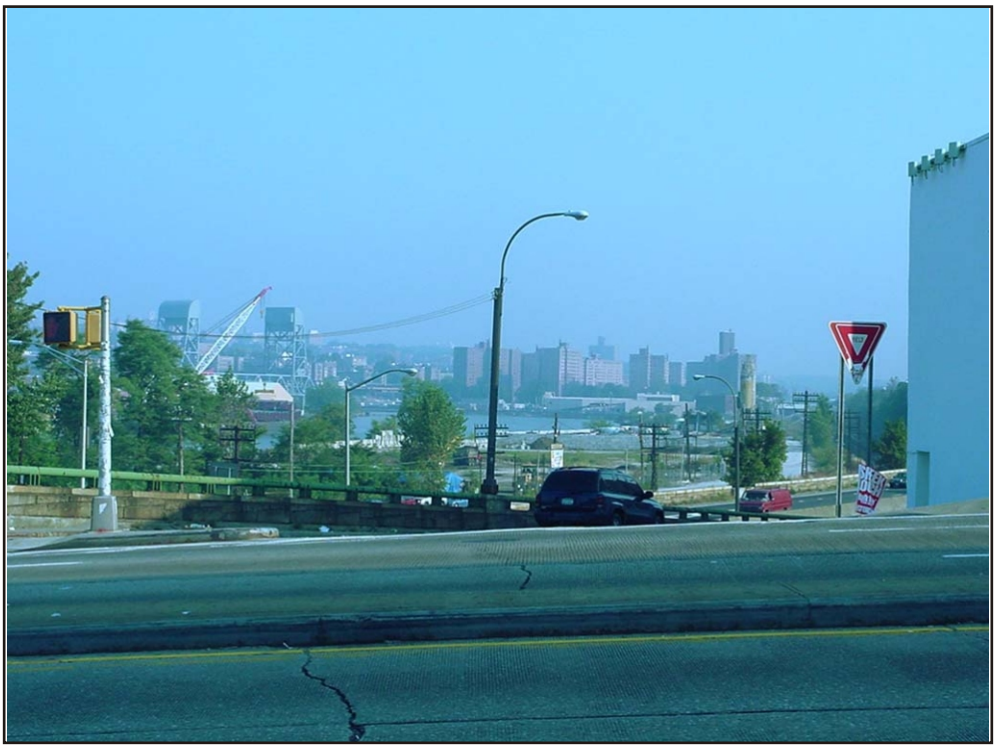
Photograph 1, View of NYCDOT property north of the University Heights Bridge.

Photograph 2, View of vacant Con Edison property at the Harlem River Site.

Visual Character
Harlem River Site

Croton Water Treatment Plant

Figure 7.3-2



Photograph 3, View of the Harlem River Site.

Photograph 4, View of the XCEL Ready Mix Concrete Batch Plant at the Harlem River Site.

Visual Character
Harlem River Site

Photograph 5, View of sand and gravel storage area on CSX property.

Photograph 6, View of transportation facilities across the Harlem River to the west.

Visual Character
Harlem River Site

Croton Water Treatment Plant

Figure 7.3-4

Photograph 7, View of the Broadway Bridge and apartment complex to the north.

Photograph 8, View of Harlem River Site from 225th Street and Broadway.

Visual Character
Harlem River Site

Photograph 9, View of the train track and the Major Deegan expressway to the east.

Photograph 10, View of the U.S. Veteran's Administration Hospital. Apartment buildings are also visible in the foreground.

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Visual Character
Harlem River Site

Croton Water Treatment Plant

Figure 7.3-6

Photograph 11, View of high-rise apartment buildings to the east.

Photograph 12, View of low-rise apartment buildings to the east. Commercial buildings are visible in the foreground.

Visual Character
Harlem River Site

Croton Water Treatment Plant

Figure 7.3-7

Photograph 13, View of Bronx Community College to the south. Commercial buildings are visible in the foreground.

Photograph 14, View of the site for the proposed water treatment plant.

Visual Character
Harlem River Site

Croton Water Treatment Plant

Figure 7.3-8

Photograph 15, View of Harlem River Site from University Heights Bridge.

Visual Character
Harlem River Site

Croton Water Treatment Plant

Figure 7.3-9

7.3.2.2. Future Without the Project

The Future Without the Project conditions were developed for the anticipated peak year of construction (2009) and the anticipated year of operation (2011) for the proposed plant. The anticipated peak year of construction is based on peak truck traffic and the peak number of workers. Visual resources and urban design of the Harlem River Site in the year 2009 are anticipated to change slightly through 2011.

The River Plaza, a development immediately north of the Harlem River Site consisting of national-name retail stores and restaurants, is anticipated to be completed in 2004. The retail stores that would comprise this development are generally large one-story warehouse-style buildings; the restaurants are usually smaller one-story buildings. A large parking lot area or parking structure would be part of this development. An apartment complex has been proposed for the area immediately to the south of the University Heights Bridge. This development, Fordham Landing, would consist of four 17-story buildings, which would contain approximately 500 new housing units, a convenience store, and a parking garage for apartment residents. The development could also provide public access to an esplanade. The buildings would be visible from numerous vantage points in the surrounding neighborhoods of the Bronx and Manhattan. This project is in the early planning stages; the start date of the project has not been determined. Presently, this area contains two trailers and a small guard shed; school buses are also being stored on-site. Construction is anticipated to begin in 2004 on eight new three-family homes and a neighborhood park in the area of Phelan Place and Billingsley Terrace (Photograph 16, Figure 7.3-10). This development would take place in a predominantly residential area and thus would likely not significantly alter the urban design or visual character of the study area.

A number of projects have been proposed for the Harlem River Site and surrounding areas; however, these projects have currently not advanced beyond the planning/proposal stage. Suggested projects include an environmentally friendly boating facility in the Sherman Creek area; conversion of a former municipal parking lot at West 230th Street between Broadway and the Major Deegan Expressway to either commercial space or a new firehouse/EMS (Emergency Medical Services) station; Harlem River public waterfront access in the vicinity of the water treatment plant site; rezoning of some Harlem River waterfront property from industrial to residential; construction of a Harlem River Greenway Trail along the eastern Harlem River waterfront; and the Regatta Park Project, a public park which would extend from the water treatment plant site to the Roberto Clemente State Park. The Bronx Borough President's Waterfront Report (released in June 2003) lists specific recommendations for the section of the Harlem River waterfront that includes the Harlem River Site. Specifically, the report recommends that plans for the water treatment plant should provide river access in the form of promenade development, green areas, and recreational facilities. The report emphasizes that this section of waterfront is underutilized due to inaccessibility and unsafe conditions (for example: loose dogs roaming Exterior Street); these issues are the major obstacles to expansion of open space along the Harlem River. A major recommendation of the report is to establish waterfront access along this section of isolated and underdeveloped shoreline. Proposed projects such as rezoning of Harlem River waterfront property and implementation of recommendations in the Bronx Borough President's Waterfront Report would facilitate new types of development and therefore potentially change the visual character of the study area. The remainder of the proposed activities are not anticipated to significantly alter the urban design or visual character of the study area.

Photograph 16, View facing northwest corner of Phelan Place and Billingsly Terrace.

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Visual Character
Harlem River Site

Croton Water Treatment Plant

Figure 7.3-10

7.3.3. Potential Impacts

7.3.3.1. Potential Project Impacts

The anticipated year of operation for the proposed plant is 2011. Therefore, potential project impacts have been assessed by comparing the Future With the Project conditions against the Future Without the Project conditions for the year 2011.

The proposed project would include two primary structures on the 17.5 acre Harlem River Site (Photographs 17 and 18, Figures 7.3-11 and 7.3-12). The water treatment building would be 65 feet high and cover a rectangular footprint of approximately 233,325 square feet. The pump station would be 65 feet high and cover a rectangular footprint of approximately 57,600 square feet. A vehicle inspection booth would be located to the south of the proposed plant to regulate access to the water treatment plant site. A vehicle interdiction wall and fencing would follow the property line around the water treatment plant site. Vehicle parking would be available adjacent to the two primary structures on-site. Internal access roads would be located around the two primary structures on-site, forming a loop around the proposed plant.

As shown in Figure 7.3-13, the contemporary design of the buildings would mix buff-colored concrete panels and embedded clay tiles that have a brick-like appearance and coursing patterns. This would create dimensional effects and provide a "brick" look to the normal panelized construction. The brick faced panels would alternate with the buff colored panels, utilizing alternating smooth and rough stone textures to help break down the massing of the proposed facilities. The façade of the main treatment building would include square and rectangular windows. The front entrance of the building would face south. Some building mechanical equipment would be enclosed in utility penthouses attached to the rooftop of the treatment building. Although these equipment rooms would add height to the structure, they would not visually detract from the façade. A "green roof"[1] would be installed on the roof of the water treatment plant, thus providing an aesthetically pleasing view for those portions of the study area that have views of the water treatment plant site.

At night, the site would be entirely illuminated for security purposes. Lighting would be focused on specific areas of the proposed facilities so that light would not penetrate into neighboring businesses or residential areas. Because of security concerns, vegetative buffering such as thick foliage, shrubs or other types of screening around the boundaries of the water treatment plant site would not be introduced.

Existing businesses on-site would be displaced by the proposed project, including the self-storage facility, the batch plant, and the gravel and sand storage area. While the utility lines associated with the Con Edison property would remain operational, the existing brick structure would be removed. The NYCDOT storage/staging area would also be displaced by the proposed project. Furthermore, some vegetation on the Harlem River Site would be permanently cleared to allow the proposed plant to be constructed. With the introduction of the proposed plant,

[1] A grass-covered roof is currently being considered.

landscaping and vegetation would be established or rehabilitated on other portions of the site that are outside of the water treatment plant site boundaries. This would include the introduction of an esplanade along the shore and park-like areas north and south of the proposed plant, thereby improving the visual character of the water treatment plant site.

Existing views of the water treatment plant site from surrounding land uses and structures would change. The degree to which the views are altered depends upon the location and elevation of the viewer in relation to the water treatment plant site. The proposed plant would be visible from several areas, including the University Heights Bridge, (Figure 7.3-13), West Fordham Road at the Major Deegan Expressway (Figure 7.3-14), and in the vicinity of the upper Manhattan subway yard (Figure 7.3-15). The U.S. Veteran's Administration Hospital as well as some apartment buildings within the study area that have multiple stories would have a view of the proposed plant, including the grass-covered roof. There would be some loss of view of the Harlem River from these higher areas; however, this loss would be minimal, thus preserving the Harlem River as the dominant feature of the area. This change would not represent a substantial alteration or loss of visual character in the study area.

The current view from the University Heights Bridge would change (Figure 7.3-13). Currently, a portion of the Fordham Road access ramp can be seen from the bridge, as can the NYCDOT storage area and the self-storage facility. The shoreline of the NYCDOT property and the property are lined with riprap; large concrete blocks and other debris also punctuate the view of the site from the bridge. With the introduction of the proposed project, a bulkhead would be established along this stretch of the Harlem River, replacing the riprap and concrete blocks currently visible on-site. The proposed esplanade would also be visible from the bridge; this walkway could continue underneath the bridge, providing access to the area to the south of the bridge, if an agreement is reached with the property owners to the south of the site. The proposed plant would replace the current self-storage facility on site. Presently, this area is a publicly inaccessible manufacturing area; with the proposed project, the area would be improved and public access and amenities would be introduced on-site. The proposed plant is compatible with other uses in the area. Several other large developments, including the U.S. Veteran's Administration Hospital, the subway yard in upper Manhattan, and the Fordham Hill Oval cooperative apartments, are located within the study area; these structures are visible from the University Heights Bridge.

Photograph 17, Future without the Project. View from the U.S. Veteran's Administration Hospital.

Photograph 17, Future with the Project. View from the U.S. Veteran's Administration Hospital.

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Future Without and With the Project
Harlem River Site
Proposed Facilities

Croton Water Treatment Plant

Figure 7.3-11

Photograph 18, Future without the Project. View from the U.S. Veteran's Administration Hospital.

Photograph 18, Future with the Project. View from the U.S. Veteran'sAdministration Hospital.

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Future Without and With the Project
Harlem River Site
Proposed Facilities

Croton Water Treatment Plant

Figure 7.3-12

Photograph 19, Future without the Project.

Photograph 19, Future with the Project.

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Future Without and With the Project
Harlem River Site
View from University Heights Bridge

Croton Water Treatment Plant

Figure 7.3-13

Photograph 20, Future without the Project.

Photograph 20, Future with the Project.

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Future Without and With the Project
Harlem River Site
View from West Fordham Rd.

Croton Water Treatment Plant

Figure 7.3-14

Photograph 21, Future without the Project.

Photograph 21, Future with the Project.

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Future Without and With the Project
Harlem River Site
View from Vicinity of West 215th Street

Croton Water Treatment Plant

Figure 7.3-15

The proposed plant would be visible from the West Fordham Road and Major Deegan Expressway intersection (Figure 7.3-14). The dominant view from this location is the subway yard and the Harlem River. With the introduction of the proposed plant, the main treatment building and the pump station would be visible beyond the Major Deegan Expressway and could potentially reduce views of the Harlem River. However, these changes would be minimal since the majority of the surrounding areas are high enough to be able to view the Harlem River over the proposed water facility. Although some views of the Harlem River would be reduced from the Fordham Road area, it would remain as a dominant visual feature and adverse changes to the visual character are not anticipated.

The view from the Manhattan portion of the study area would change. Presently, the Fordham Hill Oval cooperative apartments and other one-story buildings are visible from the area adjacent to the subway yard located in upper Manhattan; vegetation marking the rise in topography between the Harlem River and the area to the east is also visible from this location (Figure 7.3-15). The proposed project would be clearly visible from the portions of the Manhattan study area adjacent to the Harlem River; however, the facilities would still allow for a view of the vegetation to the east of the proposed plant; likewise, the Fordham Hill Oval cooperative apartments and other buildings would still be visible. Additionally, manufacturing districts and a large subway yard dominate the Manhattan portion of the study area adjacent to the Harlem River. Therefore, the proposed project would not be out of character with respect to this portion of the study area.

By the anticipated year of operation (2011), it is anticipated that a new project near the Harlem River Site would be constructed. A new retail area, River Plaza, would be located to the immediate north of the Harlem River Site. The centerpiece of this area would be a Target retail store; other retail business and restaurants would also be part of this development. Next to this new development and in relation to the manufacturing area to the west of the site, the proposed plant would not be out of character with its surrounding environs (Photograph 8, Figure 7.3-5). As discussed above, an apartment complex (Fordham Landing) has been proposed for the area to the south of the University Heights Bridge, which would contain approximately 500 new housing units, a convenience store, and a parking garage for apartment residents. The majority of this development would consist of four 17-story residential buildings. The University Heights Bridge would serve as a physical and visual barrier between this residential land use and the water treatment plant to the north. As stated above, the propose project would not be out of character with this or other portions of the study area. It is anticipated that visual character changes associated with the water treatment plant project would represent an improvement from the existing conditions due to the landscaping, general clean-up, and restoration activities associated with the proposed project.

Shadow Analysis. The proposed plant roof elevation would be 65 ft above Mean Sea Level (MSL). Therefore, an analysis was conducted to determine the duration and extent of the longest shadow that the structures would cast during the year.

An assessment was undertaken of potential shadow impacts for March 21, May 6, June 21, and December 21. The results are presented in Figures 7.3-16 and 7.3-17. The results of the analysis indicate that minimal shadow from the proposed project could be cast to the west during late

morning hours, to the east during late afternoon daylight hours, and to the north during late morning and early afternoon hours. The extent of these shadows could range from approximately 50 feet in May and June, to approximately 130 feet in December and March. These shadows could be cast on the following areas: to the west, on a portion of the Harlem River adjacent to the proposed plant, and to the east, on the Metro-North rail tracks, the Major Deegan Expressway, and, during winter months, on a small portion of wooded area to the east of the Major Deegan Expressway. These shadows from the proposed plant would not impact any sensitive uses in the immediate area surrounding the water treatment plant site. Therefore, no significant impacts are anticipated from shadows cast from the proposed plant.

7.3.3.2. Potential Construction Impacts

The anticipated year of peak construction for the proposed project is 2009. Therefore, potential construction impacts have been assessed by comparing the Future With the Project conditions against the Future Without the Project conditions for the year 2009.

During the construction period, the water treatment plant site would be an extensive work zone. Construction of the proposed plant and accompanying structures would commence in April 2005, and would last for approximately 5.5 years. Construction of the proposed project would involve the disturbance of approximately 17.5 acres, including excavation and the grading of material for the building foundations and tunnels. Construction truck trips would be anticipated to peak in September 2009, whereas construction worker trips would peak two months later in November 2009.

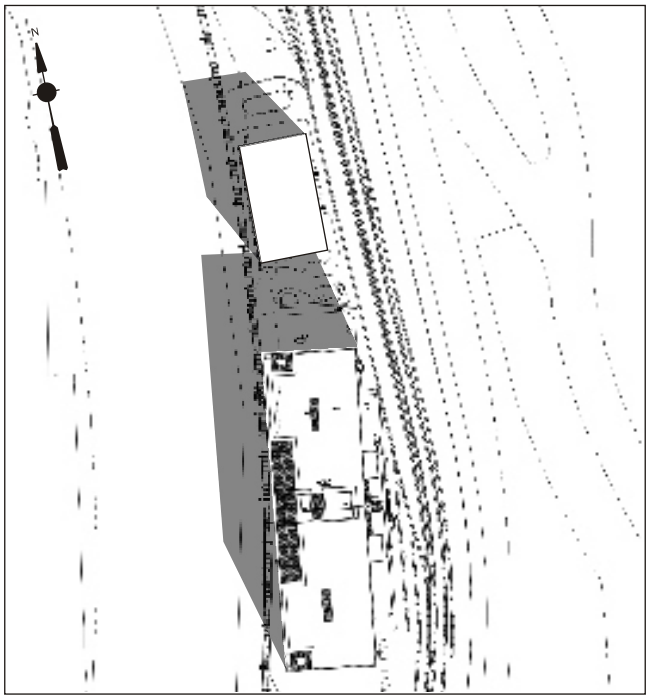
It is anticipated that heavy equipment and construction materials would be present on the site during construction. Most construction materials would enter and leave the site by river barge, thereby limiting the truck traffic on the adjacent public roads. Excavated material would be removed by barge, and raw materials for concrete batching would be brought in by barge. A bulkhead would be required to stabilize the shoreline before heavy construction activities commence. Docking facilities and the necessary vehicular access improvements would also be constructed. To control groundwater infiltration during excavation, a concrete cut-off wall would be constructed. This wall would be constructed before deep excavation within the completed wall could begin.

All tunneling work would be staged from the Harlem River Site. Materials excavated during tunnel construction would be removed via the shafts and loaded onto barges. The concrete and steel lining for the tunnels would also be staged from the Harlem River Site. Tunneling activities and the raw and treated water connection to the proposed plant could be completed in approximately 36 months.

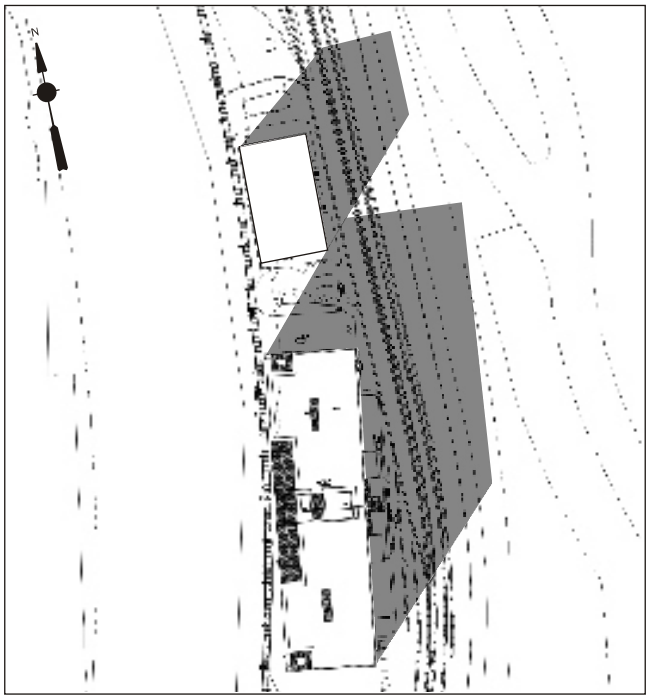
Although the height of the buildings on-site at completion would be 65 feet, temporary use of cranes, a tunnel boring machine, and other tall and/or heavy building equipment would be anticipated at various times during the construction period. These types of equipment would be visible from various off-site vantage points, but these views would be temporary.

Most of the visual effects related to construction at the water treatment plant site would take place on-site. Construction of the proposed plant would change the existing visual character of the Harlem River Site; however, such a change would not be considered significant given the

overall manufacturing/industrial context of the area, and the high elevation of the surrounding area would dwarf the equipment on site. Construction activity would be visible from the U.S. Veteran's Administration Hospital and some high-rise apartment buildings within the study area, but since these viewers would be looking down on the site, the construction would resemble the present industrial use of the site. Overall, the visual effects of constructing the proposed project would be temporary and the construction would not impede views from significant locations; therefore, no significant impacts would be anticipated to occur.

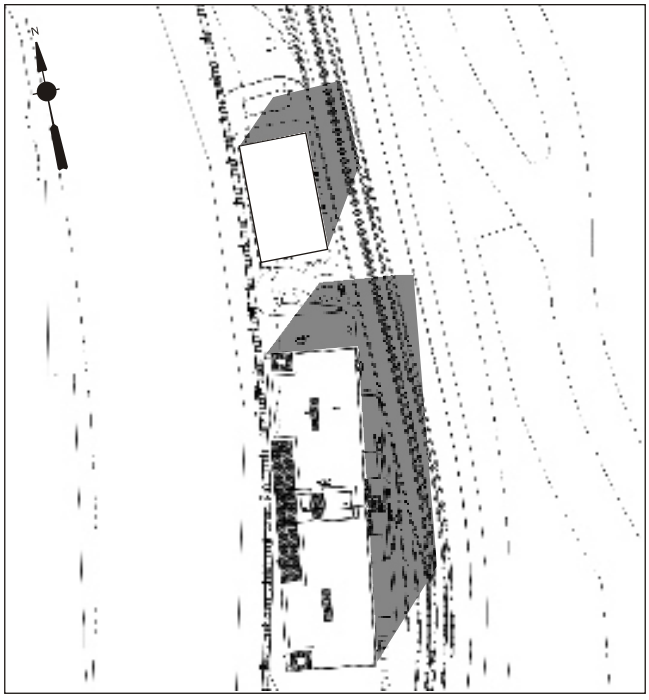


December 21 @ 10:00 am



December 21 @ 3:00 pm

March 21 @ 10:00 am



March 21 @ 3:00 pm

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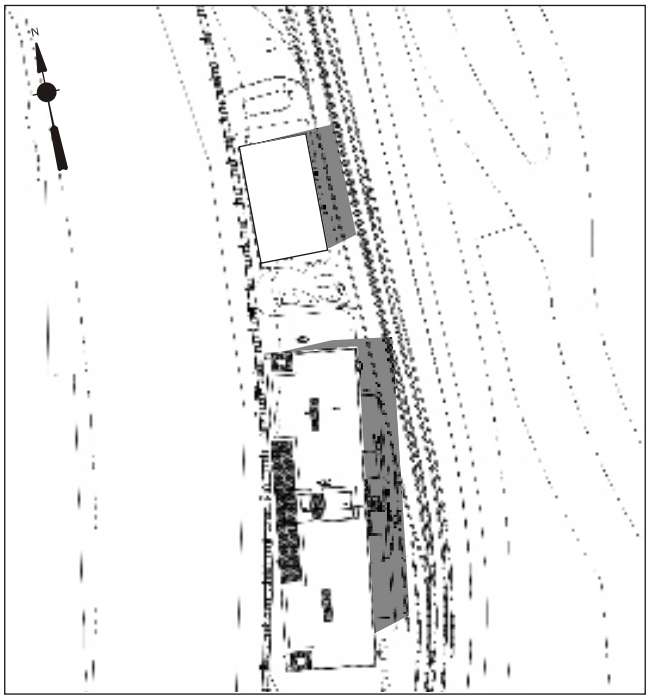
Harlem River Site Shadow Study

Croton Water Treatment Plant

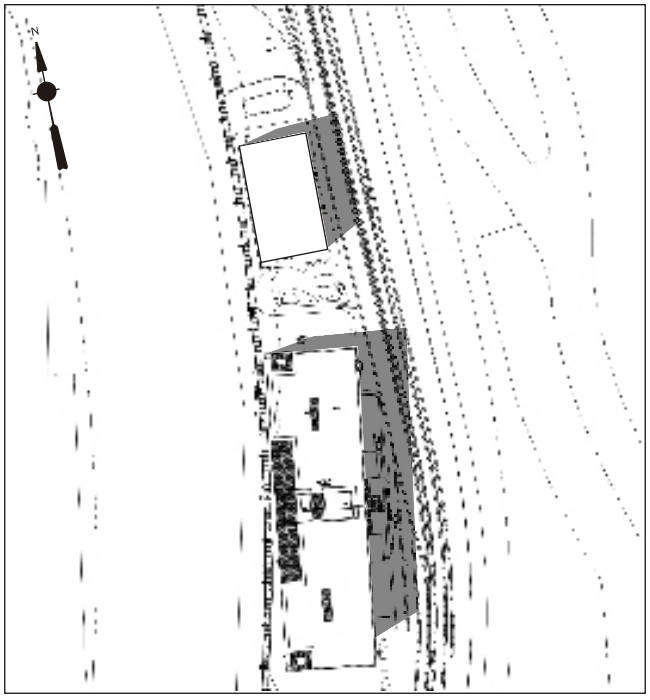
Figure 7.3-16

June 21 @ 10:00 am



June 21 @ 3:00 pm

May 6 @ 10:00 am



May 6 @ 3:00 pm

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Harlem River Site Shadow Study

Croton Water Treatment Plant

Figure 7.3-17