2.H NATURAL RESOURCES

INTRODUCTION

As described in this chapter, the Proposed Action would not result in significant adverse impacts to natural resources. As defined in the *CEQR Technical Manual*, a natural resource is a plant, animal species or any area capable of providing habitat for plant and animal species. An area capable of functioning to support environmental systems and maintain the City's environmental balance may also be considered a natural resource. Such resources include surface and groundwater, soils, drainage systems, wetlands, dunes, beaches, grasslands, woodlands, landscaped areas, gardens, parks and built structures used by wildlife. An assessment of natural resources is appropriate if that natural resource exists on, or near, the site of the Proposed Action, or if an action involves disturbance of that resource. The Proposed Action is expected to result in the future redevelopment of portions of the Crotona Park East/West Farms rezoning area. The potential for the redevelopment to significantly affect natural resources is addressed in this chapter. A primary natural resource in the area is the Bronx River, which borders the area to be rezoned on the west. According to the City's Draft Bronx River Waterbody/Watershed Facility Plan the Bronx River is described as follows:

> "The Bronx River is a tributary of the East River and flows generally from north to south through Westchester County and central Bronx County. The headwaters of the Bronx River are at Davis Brook and the Kensico Dam and extend to the mouth between Hunts Point and Classon Point along the East River. The northern portion of the river upstream of East Tremont Avenue is freshwater. South of this point, the river is tidally influenced and generally brackish.
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> In the 17th Century the Bronx River was referred to as Aquehung or "River of High Bluffs" by the Mohican Indians who first lived off of the river. At the beginning of the 18th Century, roughly 12 water mills were producing paper, pottery, flour, tapestries, and snuff along the Bronx River. Much of the valley remained densely vegetated and forested well into the 19th Century. However, in the 1840s during railroad construction, the valley was turned into an industrial corridor. In 1905, Westchester County constructed the Bronx River Valley Sewer which discharged into the Bronx River. New York City's demand for water continued to rise and the construction of the Kensico Dam diverted the upper reaches of the Bronx River into the reservoir, cutting the river's water flow by approximately 25 percent in 1915. The river's history since the 1880s has been an effort to reclaim and protect it from urbanization. In 1888, Bronx Park was created by consolidation of surrounding properties to buffer against development on both sides of the river. The Bronx River Parkway was completed in 1925, and includes a collection of lakes, parks, and limited access roadways stretching from the Kensico Dam to Bronx Park. Throughout the 1960s and 1970s, city and state highway projects distanced the Bronx River communities from each other as well as the river. In 1974, as a response to the poor conditions of the Bronx River, local residents formed the Bronx River Restoration Project, Inc. The group was successful in removing debris from the shoreline of the Bronx River. In 1996, the Restoration Project was strengthened with the Bronx Riverkeeper Program, created in a partnership with the City of New York Parks and Consolidated Edison Corporation. In 1997 the Bronx River Working Group expanded the effort to include over 60 community groups, government agencies, schools, and businesses. Additionally, the Bronx River Alliance was created in 2001 as the next step in the effort to restore and protect the Bronx River.
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> The freshwater portion of the Bronx River within New York City is classified as a Class B waterbody with best usages of primary and secondary contact recreation and fishing. The tidal portion of the Bronx River is classified by the State of New York as a Class I waterbody, with designated best usages of secondary contact recreation and fishing. To support these uses,

numerical criteria for dissolved oxygen (DO) and bacteria concentrations have been established, but both the numerical and narrative standards require that contravention never occur. The freshwater portion is in compliance with DO standards. Historical dissolved oxygen concentrations are frequently found to show impairments and excursions below the allowable levels in the tidal section. However, recent water quality modeling shows compliance with the 4.0 mg/L standard in the tidal portion of the Bronx River varies from 83 to 100 percent.

Total and fecal coliform bacteria data indicate that recreational uses of the Bronx River are impaired in the freshwater section of the Bronx River and the first half mile of the tidal portion immediately downstream of the freshwater section. Water quality modeling indicates that upstream flows entering the City must be greatly improved for standards attainment to be realized. Upstream communities have been working to improve water quality, and Westchester County and the NYCDEP recently completed a joint sampling program to augment the limited data set available on existing water quality conditions."[1]

The area to be rezoned was selected as the primary study area for this analysis, since this is the area where development would occur as a direct result of the Proposed Action. A secondary study area has been designated with a radius extending approximately ¼- mile from the proposed rezoning area in order to identify resources at the edge of the rezoning area that may be affected. The primary and secondary study areas together are referred to as the "study area". Figure H -1 shows the study area boundaries.

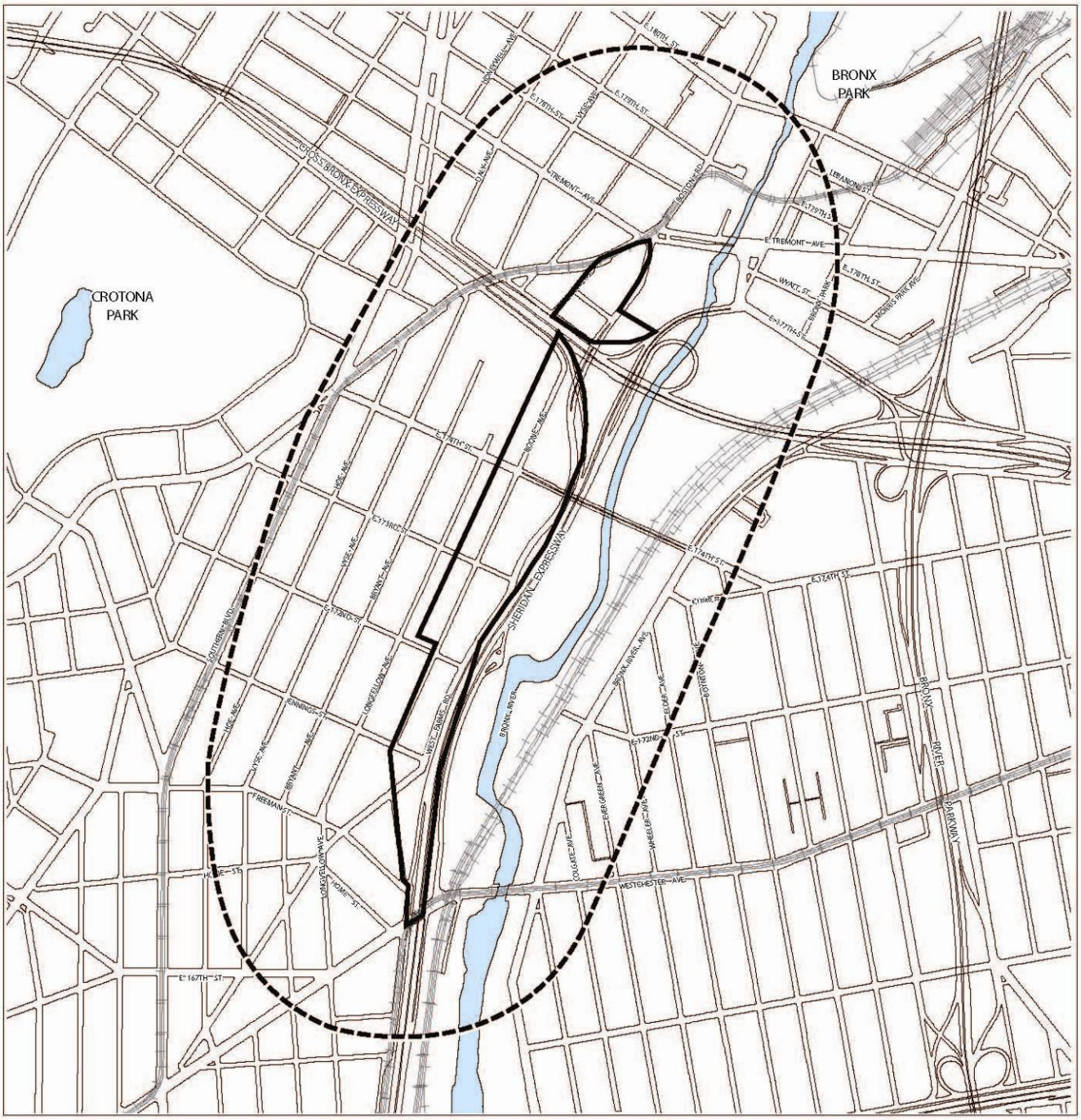
The Crotona Park East/West Farms rezoning area is urbanized and densely developed. The study area does not include any of the following natural resources: state-regulated freshwater wetlands, beaches, dunes, bluffs, thickets, significant grasslands, meadows, woodlands, forests or areas identified in the *CEQR Technical Manual* as having a special natural resource designation. The study area does include tidal wetlands, but these exist in narrow strips along the shoreline of the Bronx River. None of these wetlands are in the immediate vicinity of the area to be rezoned; the nearest one to the north is at Drew Gardens, and the nearest to the south is at Concrete Plant Park, south of Westchester Avenue. Though the area to be rezoned lies outside of the designated coastal zone (with one minor exception within the Cross Bronx Expressway right-of-way – See Chapter 2. A, Land Use and Waterfront Revitalization), the ¼ mile study area does contain a designated coastal zone area along the length of the Bronx River. (See Figure A-7 in Chapter 2.A.)

Title 6 of the New York Code of Rules and Regulations (6 NYCRR) Part 703 includes surface water standards for each use class of New York surface waters. The Bronx River is designated as use classification Class I. Best usages for Class I waters are secondary contact recreation and fishing. Water quality should be suitable for fish survival and propagation.

The Proposed Action consists of a rezoning of 11 blocks in the Crotona Park East/West Farms area of the Bronx, along the strip of land midway between Longfellow and Boone Avenue on the west to West Farms Road on the east, between Freeman Street on the south, and Boston Road on the north, and the grant of special permits under ZR Sections 74-743 and 74-745 for an LSGD to be developed on Blocks 3013 and 3014. (Parcels 1 and 2; see Chapter 1, Project Description) The special permits would provide waivers for the portion of the proposed project located on Blocks 3013 and 3014. Also included in the Proposed Action will be a zoning text amendment to establish the Inclusionary Housing program within the proposed rezoning area and to grant the CPC the authority, in LSGD's in Bronx Community District 3, to exclude portions of buildings containing enclosed accessory parking from lot coverage.

The total number of dwelling units that could occur from the rezoning would amount to a net increase of approximately 2,635 new dwelling units (or a total of 2,775 units).

[1] New York City Draft Bronx River Waterbody/Watershed Facility Plan (July 2008).



Proposed Rezoning Area (Primary Study Area)

1/4 Mile (Secondary) Study Area

The total amount of new retail space which could be expected would be a net increase of approximately 92,941 sf (or a total of about 131,869 sf). As described in Chapter 1, Project Description, this estimate represents a reasonable worst case analysis of the expected total retail space that could accompany the development with the proposed rezoning.

The *CEQR Technical Manual* contains a section to determine whether a detailed natural resources assessment is appropriate for any given project. This section (3.I. Section 200) outlines an impact screening methodology. That methodology is assessed below. In addition, the manual also describes a series of impact thresholds for both direct and indirect affects to natural resources. These are also assessed below.

IMPACT SCREENING ANALYSIS FOR POTENTIAL NATURAL RESOURCE IMPACTS

Initial Impact Screening

Under guidelines on page 11-10 of the *CEQR Technical Manual*, a detailed natural resources assessment is not necessary providing:

- *The site of the action is substantially devoid of natural resources, as defined in Section 100 of the manual or the site of the action contains natural resources or important subsurface conditions, but no activity associated with the action (see Section 341) would disturb them, either directly or indirectly.*

The area to be rezoned is substantially devoid of natural resources. All of the projected and potential redevelopment sites within the area to be rezoned are either developed with existing buildings, or consist of paved parking or open storage areas. There are no natural resource elements on these sites. Therefore, the Proposed Action would not result in any direct disturbance of natural resources. In addition, as discussed below, the Proposed Action would not result in any indirect disturbance of natural resources.

- *The site of the action contains no "built resource" that is known to contain or may be used as a habitat by a protected species as defined in the Federal Endangered Species Act (50 CFR 17) or the State's Environmental Conservation Law (6 NYCRR Parts 182 and 193).*

The existing structures on the projected and potential development sites are typical one and two story structures which would be unsuitable for nesting or other reproductive activities by any Federal or State endangered species. No such species are known to exist in the area to be rezoned.

- *The site of the action contains no subsurface conditions (such as hazardous materials), the disruption of which might affect the function or value of an adjacent or nearby natural resource.*

The hazardous materials studies presented in Chapter 2.I. indicate that many sites within the rezoning area may harbor known or potential contaminants that include a wide array of petroleum and non-petroleum based chemicals from former uses, due to the industrial nature of the area. However, testing and remediation would be required, through restrictive declarations and (E) designations, which would eliminate the potential for these substances to be released into the environment as a result of the Proposed Action to any significant degree and therefore eliminate the possibility of run-off carrying these pollutants reaching the Bronx River. Thus, the existence of hazardous materials on the projected and potential development parcels would not affect the nearby resources along the Bronx River.

- *The site of the action is near or contiguous to natural resources as defined in the introduction above, but no activity associated with the action would disturb them, either directly or indirectly.*

See the discussion on potential indirect affects below.

- *As determined by satisfying all of the above criteria, the proposed action involves the disturbance of a natural resource, but that impact has been deemed insignificant by a government agency*

with jurisdiction over that resource and conditions have not changed significantly since the permit was issued. An example would be the repair or replacement of piers, piles, bulkheads, and other waterfront structures. These actions have been classified as environmentally insignificant in the U.S. Army Corps of Engineers' "Nationwide Permit" for such actions.

This criterion does not apply to the Proposed Action.

Secondary Impact Screening

As noted previously, the *CEQR Technical Manual* contains impact threshold criteria for the determination of potential impacts to natural resources. These criteria are used in this analysis as a secondary impact screening procedure. In the Manual, the potential impact thresholds are divided into potential Direct Effects (Chapter 11, Section 341.1), and potential Indirect Effects (Chapter 11, Section 341.2). These are assessed below.

Direct Effects

Direct effects of an action include the category of activities that directly alter the condition of a resource. Since there are no natural resources on the projected or potential development parcels, on-site activities would not directly impact any natural resources.

Indirect Effects

- *A change, such as devegetation, dewatering, soil compaction, site clearance, excavation, introduction of impervious surfaces, or any other change in drainage patterns that alters the way in which surface or groundwater flows from the project site to a nearby natural resource or vice versa.*

As noted in Chapter 2.J, Water and Sewer Infrastructure , the projected and potential development sites within the area to be rezoned consist of a fully developed urban area with impermeable surfaces that are either industrial buildings or paved surfaces. Development on Parcels 1 and 2 (Blocks 3013 and 3014) (the projected development sites within the LSGD permit area under the control of the applicant) would include mid-block landscaped open areas. The Proposed Action would not generate substantial additional runoff compared to the amount of runoff that would occur in the future without the Proposed Action. Because the amount of impervious surfaces (roof, pavement, etc.) on the projected development sites would not change substantially as compared to the existing and future without the Proposed Action conditions, there would not be a substantial increase of stormwater runoff as a result of the action. The increase in combined sewer/wastewater runoff flows between existing and No Action/Action conditions combined sewer amounts to 0.86, 2.57, and 5.17 mg and 0.02, 0.08. and 0.13 mg for the 0.4, 1.2 and 2.5 inch rainfall events, respectively, which includes other proposed projects in the No Action condition as well as the estimated effluent from previous rezonings in the HP 003 and HP 004 catchment areas.

A BMP concept plan for the applicant properties has been submitted to DEP, illustrating the opportunities for the Proposed Project to incorporate onsite stormwater source controls during planning and building design phases of project development. At the time of detailed design, the applicant will work with DEP to determine which of the BMPs will be incorporated into the project design to achieve a target stormwater release rate of 0.25 cfs or 10% of the allowable flow per the drainage plan, whichever is greater.

For non-applicant properties, self-certification of house or site connection proposals will not be permitted by the Department of Buildings or DEP in connection with any proposed new developments or expansions of existing development for which sewer connections are required.

Based on the analysis and procedures described in Chapter 2.J, it is concluded that the Proposed Action would not result in significant adverse impacts to the local water supply, sanitary wastewater treatment, or stormwater management infrastructure systems with the above measures in place.

- *A change in the degree or period of tidal inundation of a natural resource.*

The Proposed Action would have no effect on the degree or period of tidal inundation within the Bronx River.

- *A change, such as exposure or movement of contaminated sediments or soils, that renders organisms on-site or in nearby natural resources more likely to be exposed to contaminants.*

As noted above under the initial impact screening, the hazardous materials studies in Chapter 2. I indicated that many sites within the rezoning area were identified as harboring known or potential contaminants that include a wide array of petroleum and non-petroleum based chemicals from former uses, due to the industrial nature of the area. However, testing and remediation would be required, through restrictive declarations and (E) designations, which would eliminate the potential for these substances to be released into the environment to any significant degree. In fact, the displacement of the industrial uses and their replacement with residential ones would lessen surface water run-off pollutants that reach the river. Thus, the existence of hazardous materials on the projected and potential development parcels would not negatively affect the nearby natural resources along the Bronx River as compared to the future without the Proposed Action condition.

- *A change that decreases the quality of surface or groundwater that currently supports a natural resource.*

The Proposed Action would not result in a decrease in the quality of surface or ground water. With the removal of the industrial uses on the projected development parcels, it is likely that the long-term quality of the surface water run-off will improve with commensurate benefits for the Bronx River water quality.

- *A change in on-site activities that may increase the number of people, or domestic animals, or increased noise, thereby increasing disturbance to on-site or nearby natural resources.*

The Proposed Action would result in an additional 2,635 dwelling units, or roughly 7,905 additional residents to the area. However, this population would not be situated on the banks of the natural areas along the Bronx River; they would be separated by the barrier formed by the Sheridan Expressway. Trips by these residents to the area of the river would be expected to be oriented to the new Starlight Park, which is expected to be designed to accommodate a human population without significantly disturbing the natural resources. In so far as domestic animals are concerned, the barrier represented by the Sheridan Expressway would be expected to contain them in the event they were let outdoors by their owners.

- *A change in on-site conditions that increases or decreases the amount of light that reaches natural resources on or near the site.*

As shown in the shadow studies (Chapter 2.E), implementation of the Proposed Action would result in slightly longer shadow durations over Starlight Park and the Bronx River area. The Bronx River lies to the east of Starlight Park, and would experience project related shadows even later than the park itself. Generally, under the future with the Proposed Action, Starlight Park would experience shadows at one to one and one-half hours earlier than under the future without the Proposed Action conditions between March 21 and September 21, toward the end of the day. This added shade time would not be expected to significantly affect vegetation in the area of the Bronx River. (See Chapter 2.E.)

- *An activity or a change in conditions that either introduces or facilitates colonization by new (particularly non-native) plant or animal species that could overtake existing (particularly native) species either on-site or in nearby resources.*

Any landscaping that occurs on the projected or potential development sites would be too far removed from natural resources along the Bronx River to facilitate colonization by non-native species in that area.

- *An activity or change in conditions that will transform stable interior vegetation into potentially unstable edge vegetation (e.g., trees subject to increased wind stress, increased soil evaporation, etc.).*

Development of the projected or potential development sites is too far from the Bronx River to affect vegetation there in the manner described above. Development of the projected or potential development sites would have no effects on the hydrology of the river or on vegetative matter in that area.

- *A change that increases scouring, erosion, or transport of soil, silt, and sediments and alters the quality of an on-site or nearby natural resource.*

The Proposed Action would not cause an increase in scouring, erosion, or the transport of silt and sediments as compared to the future without the proposed project. Both conditions would represent urban development with ground areas covered by buildings or paving, except the Proposed Action condition would also include landscaped areas.

- *A change that increases sediment deposition on-site or in a nearby natural resource.*

See the response to the criterion above.

- *A change that could impact the movements or migration of animals between or within habitats.*

Development of the projected and potential development parcels would occur within an already heavily urbanized area. As such, it would not be expected to impact the movements or migration of animals between or within habitats.

- *A change that could encourage the spread of exotic species such as wooly adelgids and/or Asian longhorned beetles.*

The Asian Longhorned Beetle (ALB) (*Anoplophora glabripennis*) is an invasive beetle believed to have arrived in New York from its native China via untreated packing crates and wooden palettes. Infestations have been discovered in Brooklyn, Queens, Manhattan, and Staten Island. The beetles are known to attack maple, horsechestnut, elm, willow, birch, poplar, and ash trees.

Native to Asia, the hemlock woolly adelgid (*Adelges tsugae*) is a small, aphidlike insect that threatens the health and sustainability of eastern hemlock (*Tsuga canadensis*) and Carolina hemlock (*Tsuga caroliniana*) in the Eastern United States.

To prevent further spread of the Asian Longhorn Beetle, quarantine zones have been established by New York City Department of Parks and Recreation (DPR) to avoid transporting wood from the infested areas. Quarantined areas have been established, though none of these now apply to the Bronx. With respect to street trees, the Zoning Resolution provides that the species of trees is determined by the DPR. Hence, for the trees which are susceptible to these pests, it is doubtful that DPR would approve their planting if they posed a threat to broaden the infestation of these insects.

For those trees which are not in public right-of-ways, the Proposed Action would result in relatively substantial buildings. Any landscaping on development sites that would be included as part of any new building project would likely be designed by professional landscape architects, which would be aware of the potential vulnerability of the above tree species. It is not likely they would specify such species in the landscape design plans.

CONCLUSION

For all of the reasons cited above, the Proposed Action is not expected to result in significant adverse impacts to natural resources in the study area.