

Chapter 4: Potential Impacts from Operation of Proposed Action

4.1 LAND USE, ZONING, AND PUBLIC POLICY

4.1.1 INTRODUCTION

A land use, zoning, and public policy analysis evaluates a proposed project's potential effects on existing and known future land uses, as well as its consistency with underlying zoning and applicable public policies in a study area. The land use, zoning, and public policy analysis of the KEC Project generally focused on a study area extending one-half mile from the Kensico Campus and KEC Eastview Site. As the deep rock tunnel is an underground feature, the study area associated with the tunnel's alignment is limited to 400 feet on either side of its proposed route. The analysis included evaluating consistency with existing uses and examining consistency with land use patterns, planning priorities, zoning districts, and other applicable public policies articulated by local, county, State, and/or federal jurisdictions.

4.1.2 METHODOLOGY

According to the *CEQR Technical Manual*, a land use assessment, which includes a basic description of existing and future land uses and public policy at or in proximity to the site of a proposed action, should be provided for all projects that could affect land use or public policy, regardless of the project's anticipated effects. Accordingly, an analysis has been prepared that describes existing and anticipated future conditions for the analysis year, assessed the nature of any changes to these conditions that would be created by the Proposed Action, and identified those potential changes, if any, that could be significant or adverse.

The impact analysis consisted of: (1) establishing and describing the existing conditions within the study areas by identifying existing land uses, zoning districts, and relevant public policies, including adopted local, county, State, and federal plans; (2) establishing future conditions without the Proposed Action by identifying anticipated updates to land use, zoning, and public policies planned and programmed for implementation prior to the analysis year of the Proposed Action; and (3) establishing future conditions with the Proposed Action based on the proposed activities within the study area and analyzing the potential for impacts due to the Proposed Action. This involved evaluating whether the Proposed Action would result in direct alteration of land uses or zoning districts; direct effects to, and non-compatible conditions with, existing land use and zoning regulations; or potential non-compatible conditions with applicable public policies.

4.1.3 EXISTING CONDITIONS

4.1.3.1 Land Use

Kensico Campus

The Kensico Campus is located on a portion of a larger City-owned parcel, located in the Town of Mount Pleasant, Westchester County, New York (Tax ID: 117.11-3-1) (see **Figure 1.3-7**). This parcel is approximately 228 acres, including roughly 103 acres of upland and 125 acres of lands under water. The parcel is classified as water supply lands. The Kensico Campus encompasses approximately 78 acres of upland area within this larger lot. The Kensico Campus is bounded by Kensico Reservoir to the east, Columbus Avenue to the west, West Westlake Drive and Lakeside Avenue to the south, and the Valhalla Middle and High Schools to the north.

As discussed in Section 1.2.1.1, “Kensico Campus,” several components of DEP’s Catskill-Delaware water supply infrastructure are located within the Kensico Campus. Significant facilities include the UEC, DEL Shaft 18, LEC, the former Kensico Laboratory building, Fluoride Building, waterfowl management operations, parking, and roadways. Additional subsurface facilities include connection tunnels and portions of the Catskill and Delaware aqueducts. The rest of the site is a mix of woods, meadows, and open areas. The Kensico Campus is accessible from the west via Aerator Road and Westlake Drive from Columbus Avenue and also from the north via Westlake Drive, which parallels the shore of Kensico Reservoir. Aerator Road, an interior roadway, extends northwest to the southeast and bisects the parcel north of Westlake Drive.

The one-half mile Kensico Campus study area includes a variety of land uses. Dominant land uses include water supply lands, residential, institutional, public assembly, and office and research uses. The most dominant feature in proximity to the campus is Kensico Reservoir, located immediately to the east and which extends north and south of the eastern limits of the Kensico Campus (see **Figure 4.1-1**).

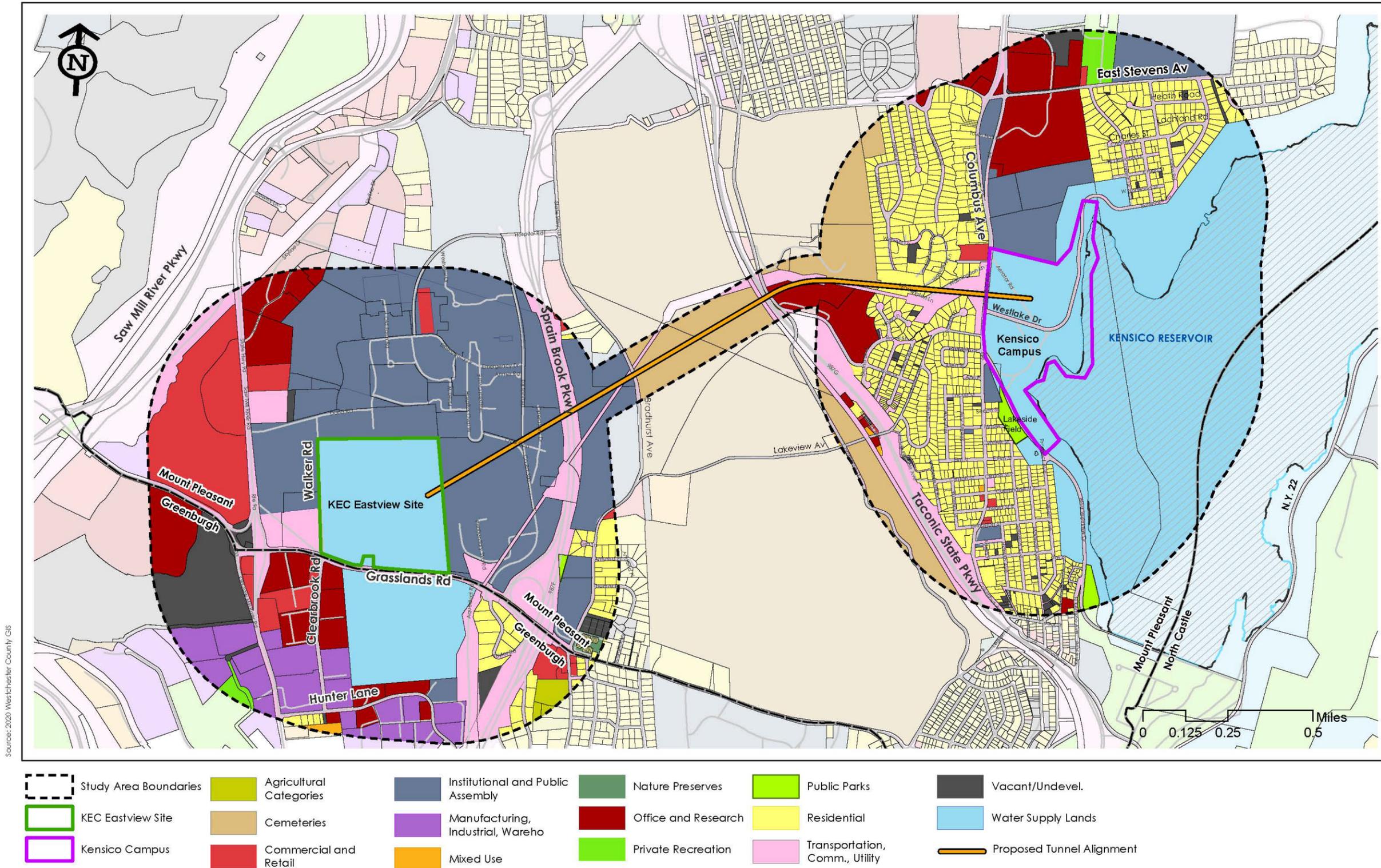


Figure 4.1-1. Existing Land Use – Kensico Campus, KEC Tunnel, and KEC Eastview Site Study Areas



(This page intentionally left blank.)

Within the northern portion of the Kensico Campus is a Con Edison utility right-of-way which runs east to west. North of this lies a cluster of large-lot institutional and public assembly uses. This includes several schools (Valhalla Middle and High Schools and Kensico School) immediately north of the Kensico Campus and municipal offices (Mount Pleasant Town Hall and Police Department) to the northwest located between the north and southbound lanes of Columbus Avenue. Further north, a cluster of office and research uses extends eastward on either side of East Stevens Avenue including PepsiCo's research and development facilities on the south side of East Stevens Avenue. An open space/public park use (Mount Pleasant Pool and Recreation Area) is located north of East Stevens Avenue and east of the office and research uses. East of the park and northeast of the site is a neighborhood of single-family homes that includes additional institutional and public assembly uses.

Land uses to the south, southwest, west, and northwest are predominantly residential, with several areas of commercial and retail uses, including neighborhood stores. Significant areas of largely single-family, detached housing are located immediately west of the campus and Columbus Avenue and south of the site to the west of West Westlake Drive and east and west of Columbus Avenue. Institutional and public assembly uses in these areas include Valhalla United Methodist Church, located south of the intersection of Columbus Avenue and West Westlake Drive and the Columbus Avenue School/Heather Mills Child Development Center located southeast of the intersection of Columbus Avenue and East Livingston Street. Lakeside Park is also located south of the intersection of Columbus Avenue and West Westlake Drive along the west side of West Westlake Drive.

Directly west of the Kensico Campus and Columbus Avenue is an additional City-owned parcel, classified as a transportation, communication, utility use that includes the Catskill Aqueduct and other supporting infrastructure. This narrow, linear parcel extends west-by-southwest and is the route of the Catskill Aqueduct. Further west within the Kensico Campus study area is a portion of the Taconic State Parkway (running north and south), a small cluster of commercial and retail, and cemetery lands including the Gate of Heaven, Mount Eden, Sharon Gardens, and Kensico cemeteries.

Deep Rock Tunnel Alignment

The proposed alignment of the deep-rock tunnel is approximately two miles long (see **Figure 4.1-1**). Much of the land within 400 feet of the tunnel alignment also falls within the larger, half-mile radii of either the Kensico Campus or KEC Eastview Site, but it also includes parts of a commercial and retail strip on Commerce Street, and additional small portions of the Mount Eden and the Gate of Heaven cemeteries. In limited areas, the alignment runs under an existing City-owned parcel that serves as the route of the Catskill Aqueduct.

Land uses along the tunnel alignment and its study area from east to west are predominantly comprised of residential uses, cemeteries, institutional, and public assembly uses. Less dominant uses include transportation, communication and utility uses, and some office and research uses. The eastern portion of the alignment would begin at the Kensico Campus and run approximately 3,000 feet westward, beneath public streets and residential and commercial lots, to a point just short of the Taconic State Parkway. The alignment would then turn southward and proceed west/southwest for approximately 1.4 miles beneath the Taconic State Parkway, the Metro-North Railroad Harlem Line, the Gate of Heaven Cemetery, the Sprain Brook Parkway, and a variety of institutional and public land uses including the Westchester County Corrections complex, before reaching the KEC Eastview Site, where it terminates at the CDUV Facility.

KEC Eastview Site

The KEC Eastview Site encompasses a parcel along the east side of Walker Road and north of Grasslands Road in the Town of Mount Pleasant (Tax ID: 116.16-1-2). The City-owned parcel is approximately 87 acres (see **Figure 1.2-4**) and is classified as water supply lands. Its southern boundary is Grasslands Road, a major east-west thoroughfare whose centerline forms the municipal boundary between the Towns of Mount Pleasant and Greenburgh. Its western boundary is Walker Road. To the north and east, the site borders the Westchester County Department of Laboratories and Research and the Westchester County Corrections complex, respectively.

The KEC Eastview Site currently houses DEP's CDUV Facility. The parcel includes two buildings, several smaller structures, internal roadways, and parking areas. The DEP Police 6th Precinct barracks is also located in the southwest portion of the site. The rest of the parcel is a mix of wooded areas, meadows, and open areas. The parcel is accessible from the west by two entrances from Walker Road and from the south via an entrance from Grasslands Road.

In general, the KEC Eastview Site is located within an area of more commercial and institutional uses. Residential uses within the immediate area are limited to the Hammond House located on the north side of Grasslands Road and adjacent to the project site with some additional areas southeast of the site and east of the Sprain Brook Parkway.

The half-mile KEC Eastview Site study area is largely framed by two, State limited-access parkways, the Sprain Brook Parkway and Saw Mill River Parkway (located just outside the western limits of the KEC Eastview Site study area) to the east and west, respectively. Several institutional and community facilities are located within the KEC Eastview Site study area, including Westchester Medical Center and New York Medical College (to the northeast and north, respectively); a cluster of Westchester County facilities, including an emergency management office, Fire Training Center, and Police Academy, and Bee-Line transit headquarters (to the northwest and west). The Westchester County Department of Laboratories and Research is located to the north along Dana Road and the Westchester County Corrections

complex is located immediately east of the KEC Eastview Site. This 512-acre campus of county facilities is collectively known as the Grasslands Reservation.

Within the western portion of the KEC Eastview Site study area is a series of large-lot commercial and retail uses along Saw Mill River Road. These include a Home Depot, an Optimum cable company facility, and an office park. To the east, the Sprain Brook Parkway runs north and south through the KEC Eastview Site study area, east of the Westchester Medical Center and the Westchester County Corrections complex. Beyond the parkway, the study area includes the Blythedale Children's Hospital, an additional institutional use on Bradhurst Avenue, and a small group of residential uses and undeveloped parcels further east and southeast.

The KEC Eastview Site study area south of Grasslands Road is located in the Town of Greenburgh. Land uses within the western and central portions of this area include a concentration of light industrial, warehousing, office/research, and commercial uses along Clearbrook Road and Hunter Lane, as well as vacant or undeveloped land west of Old Saw Mill River Road. Retail properties, including an ExxonMobil gas station, a doughnut shop, and a Wyndham Hotel are located along Saw Mill River Road. An additional City-owned parcel, categorized as water supply lands, is located south of Grasslands Road and is dedicated to current or future DEP uses and is largely undeveloped. Within the eastern portion of the Greenburgh portion of the KEC Eastview Site study area is a mixture of low-density residential uses and a plant nursery.

4.1.3.2 Zoning

In New York State, municipal land use regulations apply to almost any development proposed within a given jurisdiction. The Proposed Action would be wholly located within the Town of Mount Pleasant. However, the zoning assessment also encompasses portions of the adjacent Towns of Greenburgh and North Castle. The portion within the Town of North Castle is exclusively within the limits of Kensico Reservoir with no parcels or structures, therefore, a discussion of their zoning designations and requirements is not presented. Discussion of existing zoning designations for the Town of Greenburgh are presented as part of existing conditions due to its proximity to the KEC Eastview Site, although the Proposed Action would not be subject to these. Designated zoning districts within one-half mile of the proposed Kensico Campus, KEC Eastview Site, and/or within 400 feet of the KEC Tunnel alignment are shown in **Figure 4.1-2**.

(This page intentionally left blank.)

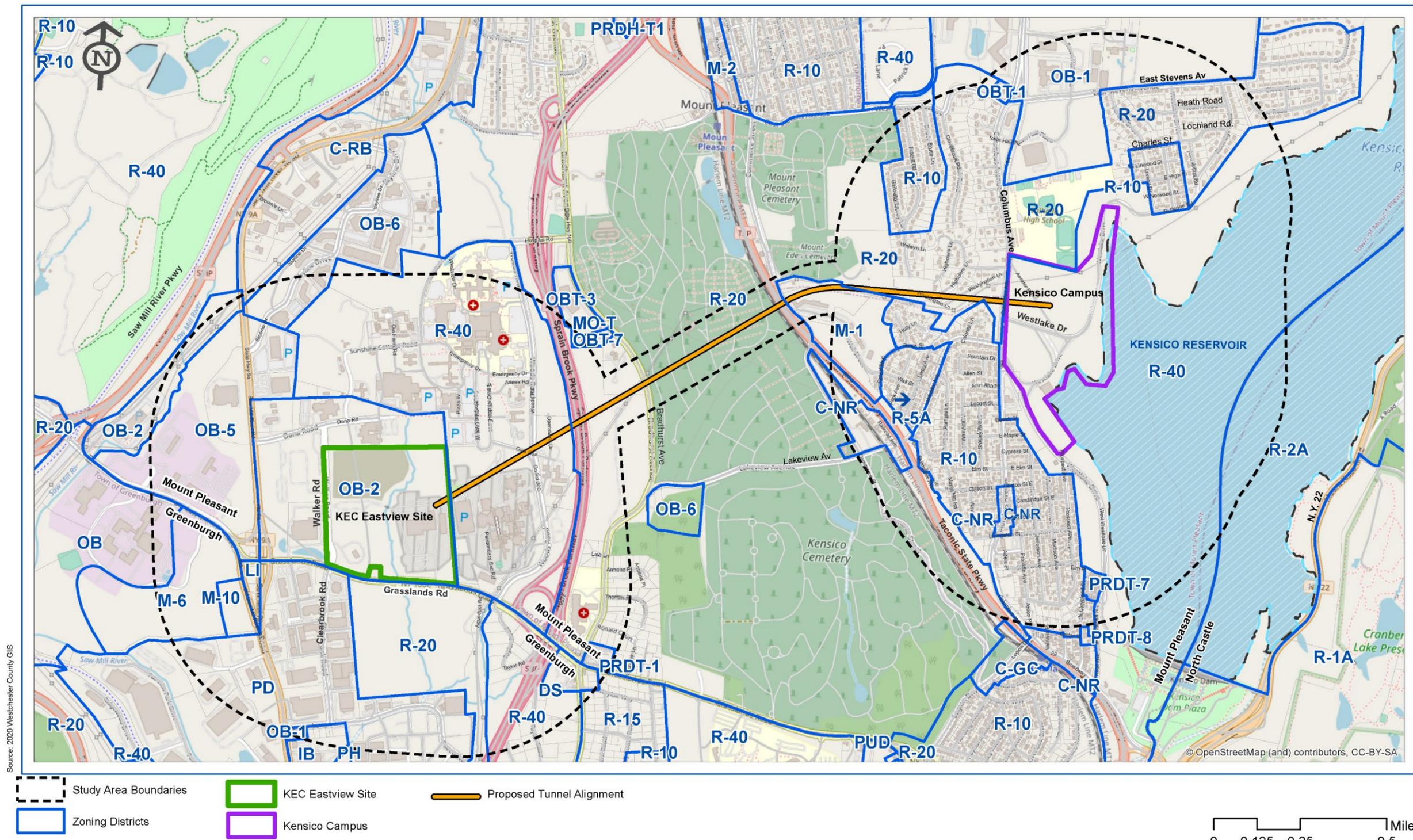


Figure 4.1-2. Existing Zoning Districts – Kensico Campus, KEC Tunnel, and KEC Eastview Site Study Areas



(This page intentionally left blank.)

The Town of Mount Pleasant has enacted a municipal zoning ordinance, Chapter 218 of the Town Code. Chapter 218 defines a range of requirements for each zoning district, including, but not limited to, permitted uses, accessory uses, building massing, minimum lot sizes, and yard dimensions for development. The Town Code also defines watershed and water supply facilities as *permitted special uses* in the Schedule of Regulations (Chapter 218, Zoning, Attachments) for many zoning districts.³⁹ The Town Code, Chapter 218, Article III also establishes the municipal framework for special use permits and site plan approval.

Table 4.1-1, below, provides a brief description of the Town of Mount Pleasant zoning districts that encompass the Proposed Action and/or those portions of the Kensico Campus and KEC Eastview Site study areas located within the Town of Mount Pleasant. **Table 4.1-2** provides a brief description of the Town of Greenburgh zoning districts that encompass those portions of the KEC Eastview Site study area located within the Town of Greenburgh.

Table 4.1-1. Kensico Campus, KEC Tunnel, and KEC Eastview Site Study Area Zoning Districts - Town of Mount Pleasant

Zone	District Name	Permitted Uses
C-RB	Highway Commercial	Restaurants, offices, retail, movie theaters, day-care centers, recreation facilities
C-NR	Neighborhood Retail	Small scale retail and similar spaces
M-1	Planned Light Industry	Campus Office, Research and Industrial Parks
MO-T	Medical Office Transitional	Other non-residential and mixed-use classifications
OB-1	General Office Building	Campus Office, Research and Industrial Parks
OB-2	Public Utility Office Building	Campus Office, Research and Industrial Parks
OB-5	Office Business	Campus Office, Research and Industrial Parks
OB-6	Office Building, Distribution, Limited Fabrication	Campus Office, Research and Industrial Parks
OBT-1	Transitional Non-Residential Districts - Office Business Transitional	Business, Office and Commercial
OBT-3	Transitional Non-Residential Districts - Office Business Transitional	Business, Office and Commercial
OBT-7	Transitional Non-Residential Districts - Office Business Transitional	Business, Office and Commercial

³⁹ §218-21, Mount Pleasant Town Code. “The special uses for which conformance to additional standards is required by this chapter shall be deemed to be permitted uses in their respective districts, subject to the satisfaction of the requirements and standards set forth herein, in addition to all other requirements of this chapter. All such uses are declared to possess characteristics of such unique and special forms that each specific use shall be considered as an individual case.”

Table 4.1-1. Kensico Campus, KEC Tunnel, and KEC Eastview Site Study Area Zoning Districts - Town of Mount Pleasant, Continued

Zone	District Name	Permitted Uses
PRD-T-1	Planned Residential Development, Transitional-1	Planned Residential Development, Transitional
PRD-T-7	Planned Residential Development, Transitional-7	Planned Residential Development, Transitional
R-5 A	Multi-Family Residential	Over 2 to 8.9 dwelling units/acre; minimum lot size 4,900 to 20,000 square feet (sf)
R-10	One-Family Residential	Over 2 to 8.9 dwelling units/acre; minimum lot size 4,900 to 20,000 sf
R-20	One-Family Residential	Over 2 to 8.9 dwelling units/acre; minimum lot size 4,900 to 20,000 sf
R-40	One-Family Residential	1 to 2 dwelling units/acre; minimum lot size 0.5 to 1 acre

Table 4.1-2. KEC Eastview Site Study Area Zoning Districts - Town of Greenburgh

Zone	District Name	Permitted Uses
DS	Designed Shopping	Retail
IB	Intermediate Business	Existing dwellings; retail; professional offices; small workshops
LI	Planned Light Industry	Small workshops
M-6	Multi-Family Residence	Single- and multi-family detached dwellings and compatible uses
M-10	Multi-Family Residence	Single- and multi-family detached dwellings and compatible uses
OB	Office Building	Offices, laboratories, training centers, and compatible uses
OB-1	Office Building	Offices, laboratories, training centers, and compatible uses
PD	Nonresidential Planned Development	Office, industrial, warehousing and certain commercial uses in planned park-like settings
R-20	One-Family Residential	Single-family detached dwellings and compatible uses
R-40	One-Family Residential	Single-family detached dwellings and compatible uses

Kensico Campus

The Kensico Campus is located within a residential district (R-40) which allows for single-family homes, at a lower density of one to two dwelling units per acre, with a minimum lot size of one-half to one acre. As described above, the Town Code provides that “watershed and water supply facilities” shall constitute *permitted special uses* in an R-40 zoning district, if built and maintained in accordance with provisions at §218-55, subject to approval by the Town of Mount Pleasant Zoning Board of Appeals.

Zoning districts within a half-mile of the Kensico Campus are largely dominated by residential designations. The Kensico Campus and an additional area to south and adjacent to the reservoir is designated as R-40 (One-Family Residential). Several additional residential districts are located immediately adjacent to the campus including R-20 (One-Family Residential) to the north and west and R-10 (One-Family Residential) to the northeast, south and southwest. Additional larger zoning districts within the Kensico Campus study area include M-1 (Planned Light Industry) to the west of the Kensico Campus and adjacent to the Taconic State Parkway and OB-1 (General Office Building) located to the north. Additional districts within the Kensico Campus study area include C-NR (Neighborhood Retail) and PRD-T-7 (Planned Residential Development, Transitional) to the south, OBT-1 (Office Business Transitional 1) to the north and an area of R-5A (Multi-Family Residential) to the west in proximity to the Taconic State Parkway.

Deep Rock KEC Tunnel Alignment

As shown on **Figure 4.1-2**, the study area for the proposed deep rock KEC Tunnel alignment overlaps portions of the study areas for the Kensico Campus and Kensico Eastview Site. The overall alignment predominately traverses R-20 (One-Family Residential) and R-40 (One-Family Residential) residential zoning districts. Remaining zoning districts include OB-2 (Public Utility Office Building) in proximity to the KEC Eastview Site and an area of M-1 (Planned Light Industry) just east of where the tunnel extends beneath the Taconic State Parkway.

As previously described, the Town of Mount Pleasant Town Code provides that “watershed and water supply facilities” constitute *permitted special uses*. This also applies in the OB-2⁴⁰ and M-1⁴¹ zoning districts, as the Schedule of Regulations for OB-2 districts allows for “Any special use permitted in a residence district, subject to the provisions of Article IV,” while the Schedule of Regulations for M-1 districts allows for “Any nonresidential special uses permitted in any other district,” apart from narrow exceptions pertaining to boarding houses.

KEC Eastview Site

⁴⁰ See Mount Pleasant Town Code, Chapter 218, [Attachment 10](#).

⁴¹ See Mount Pleasant Town Code, Chapter 218, [Attachment 16](#).

The KEC Eastview Site study area north of Grasslands Road, as shown on **Figure 4.1-2**, lies in the Town of Mount Pleasant. The KEC Eastview Site is located within a Public Utility Office Building zoning district (OB-2), which provides for Campus Office, Research, and Industrial Parks. The current use is broadly consistent with the description of the zoning district. As noted earlier, “watershed and water supply facilities” constitute *permitted special uses* in an OB-2 zoning district, if built and maintained in accordance with provisions of the Town of Mount Pleasant Town Code §218-55, subject to approval by the Town of Mount Pleasant Zoning Board of Appeals.

Primary Town of Mount Pleasant zoning districts within one-half mile of the KEC Eastview Site include: OB-2 (Public Utility Office Building), which includes the KEC Eastview Site and areas to the immediate north and west; OB-5 (Office Business) located further west and northwest; and R-40 (One-Family Residential) to the north and east. Additional Town of Mount Pleasant zoning districts within the one-half mile study area include: OB-6 (Office Building, Distribution, Limited Fabrication) further north; R-20 (One-Family Residential) to the northeast and east of the Sprain Brook Parkway; and a PRD-T-1 district (Planned Residential Development, Transitional, Category 1) to the southeast.

The KEC Eastview Site study area south of Grasslands Road, as shown on **Figure 4.1-2**, lies in the Town of Greenburgh. Predominant Town of Greenburgh zoning districts within one-half mile of the site include: PD (Non-Residential Planned Development) located south and southwest of the site; and R-20 (One-Family Residential) and R-40 (One-Family Residential) residential districts located immediately south and southeast of the KEC Eastview Site, respectively. Additional districts include DS (Designed Shopping), IB (Intermediate Business), LI (Light Industrial), M-6, M-10 (Multi-Family Residence), OB, OB-1 (Office Building), and PD (Non-Residential Planned Development). **Table 4.1-2** presents a summary of Town of Greenburgh zoning districts within the KEC Eastview Site study area and their allowable uses.

4.1.3.3 Public Policy

This section provides a summary of those public policies that were identified as potentially applicable to the Proposed Action. A brief overview of each public policy or plan is provided below, as well as an identification of goals or recommendations relevant to the Proposed Action.

Mount Pleasant Comprehensive Master Plan (1970)

The Town of Mount Pleasant’s current land use policy is presented in the 1970 *Mount Pleasant Comprehensive Master Plan*. Among other goals, this plan promotes solidifying a municipal tax base by attracting new types of ratables and preserving the Town’s semi-rural character by channeling development into existing corridors and establishing buffers between differing land uses.

The policy outlined in this plan is expressed through current zoning district regulations (see Section 4.1.3.2, “Zoning”). The applicability of the original 1970 plan and its goals may be time-limited, because the Town is in the process of preparing a new comprehensive master plan, *Envision Mount Pleasant*.

Envision Mount Pleasant

In 2020, the Town released a draft of a new comprehensive plan, *Envision Mount Pleasant*, for public review. ~~If adopted, this would be~~ This is the Town’s first new master plan since 1970. Its principles would then govern municipal land use and zoning policies for the foreseeable future. *Envision Mount Pleasant* was adopted in October 2022 based on ~~is currently in the process of~~ a SEQRA review, with a final generic EIS released in September 2022.

Envision Mount Pleasant articulates new planning goals, supported by implementation matrices that identify steps toward accomplishment. The plan analyzes current conditions and presents targets for managing change in the Town’s natural, socioeconomic, and built environments. Among these, the plan develops a Town-wide body of sustainability/resiliency objectives and identifies several coherent, urban nodes called *hamlets*. Within the hamlets, the plan would also adopt a form-based code, for the first time, to shape building patterns. The form-based code would incorporate an approach to urban planning that emphasizes the physical coherence of neighborhoods in addition to the standard focus on allowable uses.

Elements of *Envision Mount Pleasant* ~~that would be~~ relevant to the Proposed Action include:

- Chapter 4 Natural Environment - Preserve important open spaces, mitigate flooding impacts, accommodate alternative energy, check spread of invasive species, and restore native species.
- Chapter 6 Social Environment - Preserve Town's historic resources.
- Chapter 7 Built Environment - Operate an efficient and well-maintained infrastructural network, update and recodify the Zoning Ordinance, and create a recreation trailway to link open space assets.
- Chapter 10 Sustainability and Resiliency - Reduce greenhouse gas emissions, manage water resources prudently, facilitate solid waste reduction (reduce, reuse, and recycle), and require air quality to be a topic evaluated in all SEQRA assessments.

Patterns for Westchester/Westchester 2025

Westchester 2025 was adopted by Westchester County in 2008 and amended in 2010 to provide county-wide planning policies. It includes the latest provisions of the county plan, but it also retains and incorporates significant parts of the prior 1995 plan, *Patterns for Westchester: The Land and the People*. *Westchester 2025* identifies a number of challenges shared across the

county's communities, particularly in the areas of land use and development policy. While acknowledging that nearly all binding Town-planning decisions will continue to be made at the municipal level, *Westchester 2025* articulates an overarching county commitment to harmonizing local policies around a series of broad goals and supporting initiatives that advance these.

Westchester 2025 priorities include channeling development to existing centers, enhancing transportation corridors, connecting a network of open spaces, nurturing the local economic climate, preserving natural resources, supporting affordable housing and alternative forms of transportation, fostering recreation, conserving historic and cultural sites, maintaining infrastructure, engaging in regional governance, protecting community character, promoting sustainability, and being responsive to land use and socioeconomic trends. Proposals that advance (or do not contradict) these priorities are consistent with *Westchester 2025*.

Key priorities in the realm of land use policy for public works specific to the Proposed Action include:

- Preserve Natural Resources - Preserve and protect the county's natural resources (waterbodies, wetlands, coastal zones, and groundwater) and environment, both physical (steep slopes, ridgelines, and prime agricultural land) and biotic (critical habitat, plant communities, and biotic corridors).
- Engage in Regional Initiatives - Work with neighboring jurisdictions in the Hudson Valley, Connecticut, New Jersey, Long Island, and New York City in planning initiatives aimed at sound land use, transportation, economic development, housing, and environmental policies.

Bronx River Watershed and Corridor Plans

In 2007, the Bronx River Watershed Coalition (including Westchester County, New York City, the Town of Mount Pleasant, and other municipalities in the Bronx River Watershed) adopted this multi-jurisdictional plan for stormwater and wetlands management, publishing a two-volume evaluation of existing conditions in the Bronx River Watershed, including Kensico Reservoir and adjacent uplands. The existing conditions reports provide recommendations, strategies, and management measures for stormwater pollution control and wetlands management.

In 2019, Westchester County commissioned further study of the Bronx River Corridor. This included a survey of existing conditions, analysis of completed and potential restoration measures, and identification of erosion and flood hazards. Recommendations in the published report are aspirational. However, given the support of municipal governments for these projects, including the Town of Mount Pleasant, aspirational elements and/or expert recommendations found in their final reports could influence binding municipal land use and development policies in participating communities.

OneNYC 2050

OneNYC 2050 is a high-level policy strategy for New York City government that aims to “confront our climate crisis, achieve equity, and strengthen our democracy.” Presented as “New York City’s Green New Deal,” OneNYC is organized around nine volumes that set out goals for municipal progress centered on socioeconomic and ecological themes. Although the Proposed Action would be undertaken outside the City, it is being undertaken by a City agency.

Specific OneNYC 2050 initiatives that are potentially relevant to the Proposed Action include:

- Volume 7 – A Livable Climate
 - Initiative 20: Achieve carbon neutrality and 100 percent clean electricity.
 - Initiative 21: Strengthen communities, buildings, infrastructure, and the waterfront to be resilient.
- Volume 9 – Modern Infrastructure
 - Initiative 28: Make forward-thinking investments in core physical infrastructure and hazard mitigation.
 - Initiative 30: Implement best practices for asset maintenance and capital project delivery.

New York State Smart Growth Public Infrastructure Policy Act

Enacted by the State Legislature in 2010, the Smart Growth Public Infrastructure Policy Act (SGPIPA) requires a State Infrastructure Agency (as defined in SGPIPA, and which includes a wide variety of New York State agencies and authorities such as NYSDEC, New York State Department of Health (NYSDOH), and the Environmental Facilities Corporation) to provide a Smart Growth Impact Statement for any project subject to the provisions of SGPIPA, certifying that, ‘to the extent practicable,’ the project meets the relevant New York State Smart Growth criteria. A project is subject to the Act if a State Infrastructure Agency is to undertake, approve, support, or finance a public infrastructure project. Since the KEC Project would apply for State Revolving Fund monies and involve the construction of public infrastructure, the Proposed Action is subject to SGPIPA. Relevant criteria that must be considered as part of the SGPIPA analysis include maintaining and using existing infrastructure, protecting natural resources, applying Smart Growth planning principles, and, generally, promoting sustainable development.

4.1.4 FUTURE WITHOUT THE PROPOSED ACTION

Several DEP projects would be implemented in the future without the Proposed Action, primarily at the Kensico Campus. These include a new Waterfowl Management Program Building, and Kensico Regional Headquarters, and various minor projects, repairs, and/or replacement efforts at DEL Shaft 18. DEP projects at the KEC Eastview Site include the installation of cleanouts and foundation drain modifications at the CDUV Facility and the

potential to install a carport canopy solar and rooftop project. None of these future without the Proposed Action DEP projects would result in changes in existing land uses or zoning designations, nor would they be inconsistent with applicable public policies. The new Waterfowl Management Program Building would replace existing facilities housed in temporary structures located at the Kensico Campus, while the Kensico Regional Headquarters includes the re-purposing of the former Kensico Laboratory building with no substantive change to its exterior. The projects at DEL Shaft 18 and the CDUV Facility are minor modifications to existing facilities, and the potential solar project would be constructed over existing development.

Three privately-developed projects (Landmark at Eastview North Campus Redevelopment, Landmark at Eastview South Campus Parcel D, and Regeneron Greenburgh Expansion) were also identified in the future without the Proposed Action. All three projects are part of Regeneron Pharmaceuticals. The Landmark at Eastview North Campus Redevelopment, located approximately one-half mile west of the KEC Eastview Site, has been planned. This site currently houses existing laboratory and research buildings, and the current project would add approximately 382,000 square feet of new manufacturing and process development suites, laboratories, and office space. Landmark at Eastview North Campus Redevelopment is located in an OB-5 zoning district in the Town of Mount Pleasant and is a permitted use. The Landmark at Eastview South Campus Parcel D project has approval for an additional 128,000 square feet of research and development buildings adjacent to the existing Landmark at Eastview South Campus. Parcel D is located in OB-5 and M-6 zoning districts in the Town of Greenburgh. A third campus, Regeneron Greenburgh Expansion, in the Town of Greenburgh, would include over 1,000,000 square feet of research and development buildings, within M-6, M-10, and OB zoning districts. Due to the size of the Regeneron Greenburgh Expansion project, this project proposes to change the zoning designations of the site to a Planned Economic Development district. The combination of all three of these projects are not anticipated to result in any significant changes in existing land uses or public policies in the future without the Proposed Action. Implementation of the proposed change in zoning designation for the Regeneron Greenburgh Expansion would require Town of Greenburgh approval but would not affect zoning in the immediate vicinity of the KEC Eastview Site.

In addition, North 60, while not within either the Kensico Campus or KEC Eastview Site one-half mile study area, is a planned mixed-use development located approximately 1.4 miles west of the Kensico Campus and 0.75 miles north of the KEC Eastview Site. North 60 was reviewed due to the large-scale change in land use from existing conditions. North 60 is anticipated to change the use of the 80-acre site from largely vacant to a mixed-use biotechnology campus with complementary uses, such as hotel, medical offices, research space, an education center, and retail space as part of the Grasslands Reservation. The North 60 includes a zoning amendment for the creation of an OB-5 Master Plan (OB-5 MP) District. The North 60 project would not be anticipated to result in larger changes to existing land uses, zoning

designations, or public policies in the future without the Proposed Action, as it would be consistent with other uses within the larger Grasslands Reservation and would be located outside the one-half mile study area for the Proposed Action.

In the future without the Proposed Action, changes in specific public policies and/or zoning regulations within the Town of Mount Pleasant may occur. As noted above, the Town of Mount Pleasant has ~~prepared~~ adopted a ~~draft~~ comprehensive plan, *Envision Mount Pleasant*. The plan would adopt a form-based code in the future. This is not, however, currently anticipated to change existing land uses or zoning designations at either the Kensico Campus or KEC Eastview Site or the surrounding areas in the future without the Proposed Action.

4.1.5 FUTURE WITH THE PROPOSED ACTION

4.1.5.1 Land Use

The Proposed Action would not change the existing land use within the Kensico Campus and KEC Eastview Site or their respective study areas. The Proposed Action would not directly change the established activities on the construction sites or on any other parcels.

The Kensico Campus and KEC Eastview Site have been used exclusively by the City for water supply purposes for decades. The Proposed Action would not enlarge the use of watershed and water supply facilities beyond the existing Kensico Campus or KEC Eastview Site. Therefore, it would not change the extent to which these land uses characterize the Kensico Campus or KEC Eastview Site study area. Furthermore, since the Proposed Action would merely supplement an existing land use (on parcels already devoted to the same types of activities), it would neither create nor increase instances of non-conformance or non-compliance with existing patterns of buildings and/or uses in the study area. The Proposed Action would involve the modification of existing, and the construction of new, water supply infrastructure which would supplement the existing land use that has long been established on the sites.

The Proposed Action would not change existing surface land uses along the deep rock tunnel alignment either. The proposed tunnel alignment would not displace any known existing land uses or alter known development trends. A variety of land uses exist on the parcels along the alignment including four public rights-of-way, a railroad, two State parkways, seven residential uses, two cemeteries, one office/research use, and multiple institutional uses. As described in Chapter 1, "Project Description," the proposed Tunnel Protection Zone or utility easement intended to contain the proposed deep rock tunnel would enable the construction, operation, and maintenance of the deep rock tunnel and would introduce certain land use restrictions designed to protect the tunnel from any potential damage due to development activities below the ground surface. The proposed easement restrictions on certain activities would not be anticipated to inhibit any development allowed under existing zoning regulations nor any potential use that could reasonably be forecast at this time.

Once the easements are in place, they would restrict excavations or other subsurface activities deeper than 50 feet below the current ground surface and all well drilling and/or well improvement activities within the easement area; it is important to note that the area is served by municipal water (including water supplied by New York City's system). These restrictions would not require any changes to existing surface land uses along the alignment, and the tunnel's use would not preclude changes consistent with existing and/or currently-allowable land uses at the ground surface.

The Proposed Action would not alter, diminish, or accelerate any existing development patterns within the Kensico Campus and KEC Eastview study areas, nor would it cause the direct displacement of any existing land uses. Finally, the Proposed Action does not propose to change any regulations governing allowable land use within the Kensico Campus and KEC Eastview Site study areas.

4.1.5.2 Zoning

The Town of Mount Pleasant Town Code allows for development of new watershed and water supply facilities in both residential and non-residential zoning districts. The Proposed Action would not require, nor result in, any changes to existing zoning designations at the Kensico Campus, KEC Eastview Site, or the proposed tunnel alignment. Proposed improvements within the Kensico Campus, an R-40 zoning district, or the KEC Eastview Site, an OB-2 district, would be unaffected by the Proposed Action. With respect to water supply uses, such as the current and proposed activities on the sites, the Town of Mount Pleasant Town Code provides that "watershed and water supply facilities" shall constitute *permitted special uses* in an R-40 or OB-2 zoning district, if built and maintained in accordance with provisions at §218-55, subject to approval by the Town of Mount Pleasant Zoning Board of Appeals. Likewise, the deep rock tunnel would not result in any required changes to existing zoning designations and would not be in contravention with the requirements of these designations. As a result, the Proposed Action would not result in a significant adverse impact to zoning.

While the Proposed Action would not require any change in existing zoning designations and is largely consistent with applicable zoning requirements, it is anticipated that variances from specific requirements of the Town of Mount Pleasant Town Code would be required. These may include, but are not limited to, variances related to building and fence heights, construction noise levels, and work hours. As part of the advancement of the Proposed Action, DEP would apply for these required variances as part of the larger site plan approval processes required for the Kensico Campus and the KEC Eastview Site. The Proposed Action would comply with these site plan approvals and/or additional requirements identified by the Town of Mount Pleasant as part of this process.

4.1.5.3 Public Policy

Mount Pleasant Comprehensive Master Plan

The *Mount Pleasant Comprehensive Master Plan* (1970) does not provide policy guidance for future proposed watershed and/or water supply facilities. The plan acknowledges the significant presence of NYC water supply infrastructure within the Town, but its focus is on the water works as an asset, specifically, the legal right of local water districts to tap into the NYC water works to obtain drinking water for local properties.

The Town of Mount Pleasant zoning ordinance and other land use regulations were adopted in accordance with the 1970 plan.⁴² These regulations explicitly provide for watershed and water supply facilities as *permitted special uses*, as they do within the applicable zoning districts, and when properly permitted, are consistent with municipal planning policy. The Proposed Action would therefore be consistent with this plan.

Envision Mount Pleasant

The ~~2020 draft~~ 2022 *Envision Mount Pleasant* does not establish specific policies for watershed or water supply facilities. Activities allowed by the zoning ordinance (i.e., water supply facilities) would be consistent with the municipal master plan that governs it.

~~While currently a draft plan,~~ *Envision Mount Pleasant* highlights municipal planning objectives which, if adopted, could shape future policies. **Table 4.1-3** identifies applicable sections and goals that would be relevant to the Proposed Action, ~~if the draft plan is implemented.~~ Updates that are relevant to the Proposed Action within the final generic EIS are provided herein.

Patterns for Westchester/Westchester 2025

The Proposed Action would be consistent with the key policy goals of *Patterns for Westchester* and *Westchester 2025*. Specifically, the Proposed Action supports the following policy priorities, as outlined in the county plan:

- **Preserve Natural Resources:** A goal of the Proposed Action is to provide added resiliency to DEP’s water supply infrastructure at Kensico Reservoir in order to continue to provide high-quality drinking water to the City and other upstate users in Westchester County and beyond. As described in Section 3.7., “Natural Resources,” and Section 3.8, “Water Resources,” and Section 4.5, “Natural Resources,” and Section 4.6, “Water Resources,” the Proposed Action would be protective of natural resources as part of its

⁴² See [Consolidated Laws of New York, Town Law, Chapter 62, Article 16, Section 272\(a\)\(11\)\(a\)](#), which requires that “All town land use regulations must be in accordance with a comprehensive plan adopted pursuant to this section.” The 1970 plan states that it was adopted pursuant to this statute.

Table 4.1-3. Envision Mount Pleasant – Summary of Applicable Goals and Discussion of Consistency of Proposed Action

Section	Goal	Consistency of Proposed Action
§4-4.1 (Natural Environment, Open Space)	Seeks to obtain access rights, easements, or fee acquisition of segments of the Mount Pleasant Recreation Trailway not currently under public control.	One of the proposed segments would require an easement through the Kensico Campus. The Kensico Campus would be a secured site, and as such an easement would not be granted; however, alternative proposed alignments would allow for the goals of the plan to be achieved. The final generic EIS acknowledged that the trail would use the alternative alignment along Columbus Avenue.
§4-6.1 (Natural Environment, Water)	Seeks to utilize better design concepts in stormwater management plans.	The Proposed Action comprehensively addresses stormwater and is consistent with this goal. Approval of stormwater management for the Proposed Action would be subject to Town review as part of required site plan and other approvals.
§4-7.1 (Natural Environment, Water)	Seeks to ensure land development activities comply with the requirements of the NYSDEC State Pollution Discharge Elimination System (SPDES) General Permit for Construction Activities.	The Proposed Action will acquire applicable permits related to the discharge of construction stormwater, as well as other regulated discharges, and is consistent with this goal. See also response to §4-6.1 (Natural Environment, Water) above.
§6-3.3 (Social Environment, Historic Resources)	States that “New York City’s water supply facilities ... have profoundly influenced the Town.” The plan proposes leveraging “the resources of New York City to properly highlight and record this legacy.”	The Proposed Action would be consistent with the goals of this policy.
§7-22.2 (Built Environment, Parkland and Recreation)	Proposes that Segment 1 of the Mount Pleasant Recreation Trailway would require easements through DEP property (Kensico Campus). If easements are unobtainable, an alternative route is available along Columbus Avenue.	See response to §4-4.1 (Natural Environment, Open Space) above.
§10-2.3 (Sustainability and Resiliency)	Seeks to require air quality to be a topic evaluated in all SEQRA assessments.	The Proposed Action is consistent with this goal and a detailed assessment of the potential effects of the Proposed Action upon air quality was conducted consistent with CEQR and SEQRA.

- implementation and operation. Additional measures that would be put in place as part of elements of the Proposed Action would also protect drinking water quality through shoreline stabilization, minimization of potential runoff effects from Malcolm Brook, and increased flexibility for DEP to actively manage the quality of its drinking water.
- Engage in Regional Initiatives: The Proposed Action represents DEP’s effort to achieve mutual long-term benefits for end users in Westchester and the City through maintenance of high-quality drinking water supply, increased redundancy and resiliency to ensure delivery of this supply, and improvements in DEP’s ability to manage water supply quality within the Catskill and Delaware Systems.

Bronx River Watershed and Corridor Plans

The Proposed Action is broadly consistent with the priorities of the Bronx River Coalition’s watershed and corridor plans and does not conflict with Coalition recommendations. DEP, the Town of Mount Pleasant, and Westchester County would continue to ensure that the Proposed Action remains consistent with any municipal policies that implement Coalition priorities for the Bronx River Watershed.

OneNYC 2050

The Proposed Action is consistent with the priorities of OneNYC 2050. While the Proposed Action would be located outside the City, it remains an action pursued by a City agency. Therefore, consistency with OneNYC 2050 goals is a relevant consideration. Applicable OneNYC 2050 initiatives and analysis of the Proposed Action’s consistency with each is presented in **Table 4.1-4**.

Table 4.1-4. OneNYC 2050 – Applicable Initiatives and Consistency of Proposed Action

OneNYC 2050 Volume	Initiative	Consistency Discussion
Volume 7 (A Livable Climate)	Initiative 20. <i>Achieve carbon neutrality and 100 percent clean electricity.</i>	The Proposed Action includes the reuse of materials on-site to reduce the amount of construction waste, employs more energy efficient processes, and integrates clean energy sources, such as solar. It is therefore consistent with this initiative.
	Initiative 21. <i>Strengthen communities, buildings, infrastructure, and the waterfront to be resilient.</i>	The primary goal of the Proposed Action is to enhance system resiliency and redundancy and update existing water conveyance facilities for the next generation. It also involves shoreline stabilization to prevent erosion and maintain water quality.

Table 4.1-4. OneNYC 2050 – Applicable Initiatives and Consistency of Proposed Action

OneNYC 2050 Volume	Initiative	Consistency Discussion
Volume 9 (Modern Infrastructure)	Initiative 28. <i>Make forward-thinking investments in core physical infrastructure and hazard mitigation.</i>	See response to Initiative 21.
	Initiative 30. <i>Strengthen communities, buildings, infrastructure, and the waterfront to be resilient.</i>	See response to Initiative 21.

New York State Smart Growth Public Infrastructure Policy Act

For any project subject to the requirements of SGPIPA, the chief executive officer of the applicable State Infrastructure Agency must attest in a written Smart Growth Impact Statement that the project, to the extent practicable, meets the relevant smart growth criteria. A State Infrastructure Agency is defined in SGPIPA to include various State agencies, authorities, and public benefit corporations who undertake, approve, support, or finance the construction or reconstruction of new or expanded public infrastructure. The KEC Project would apply for State Revolving Fund monies and involve the construction of public infrastructure, therefore, compliance requirements have been considered. SGPIPA establishes 11 smart growth public infrastructure criteria that must be considered by a State Infrastructure Agency to evaluate project impacts. Of the 11 smart growth public infrastructure criteria, those that are relevant to the Proposed Action are identified and discussed in **Table 4.1-5**.

Table 4.1-5. SGPIPA Relevant Criteria and Consistency of the Proposed Action

ECL §6-0107(2) Criterion	Analysis for Proposed Action	Impact
a. To advance projects for the use, maintenance or improvement of existing infrastructure.	Proposed Action would represent a major capital investment in the existing water supply infrastructure of New York City and Upstate Communities.	Consistent
d. To protect, preserve, and enhance the State's resources, including agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources.	Proposed Action will increase redundancy and resiliency of the existing surface water supply infrastructure for New York City and Upstate Communities through upgraded and/or new facilities.	Consistent
h. To participate in community-based planning and collaboration.	Proposed Action involves community-based input as part of the EIS and site plan approval processes; it would entail collaboration between inter-municipal agencies and the public.	Consistent

Table 4.1-5. SGPIPA Relevant Criteria and Consistency of the Proposed Action

ECL §6-0107(2) Criterion	Analysis for Proposed Action	Impact
i. To ensure predictability in building and land use codes.	Proposed Action would be consistent with existing building and land use codes, including any available discretionary options. It would predictably enhance an existing land use on two key water supply infrastructure parcels.	Consistent
j. To promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations, by among other means encouraging broad based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain its implementation.	Proposed Action integrates sustainability goals set forth by DEP, the City of New York, and other municipalities that draw on the Catskill-Delaware water supply. It would represent a significant capital investment to maintain and expand existing built infrastructure that benefits the City and Westchester County communities and facilitates future development in a highly urbanized region.	Consistent

4.2 SOCIOECONOMICS

4.2.1 INTRODUCTION

The socioeconomic character of an area includes its population, housing, and economic activity. The *CEQR Technical Manual* notes that a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes within the area affected by a proposed action that would not be expected to occur without the project. As per the *CEQR Technical Manual*, a socioeconomic analysis considers five specific elements that may result in significant adverse socioeconomic impacts:

1. Direct displacement of 500 or more residences;
2. Direct displacement of more than 100 employees or displacement of a business whose products or services are uniquely dependent on its location;
3. Indirect displacement of a residential population in a study area;
4. Indirect displacement of businesses or institutions in a study area provided that more than 100 employees are directly displaced, or the project would result in new commercial development of more than 200,000 square feet; and/or
5. Adverse effect on conditions within a specific industry.

The Proposed Action would not directly or indirectly: displace any residence, business, or institution; would not result in new commercial development; and would not affect conditions on any industry. Therefore, the Proposed Action does not warrant an analysis of the five specific elements noted above.

The Proposed Action includes the acquisition of utility easements to protect the proposed tunnel. The proposed utility easements would not result in changes to existing or potential future zoning designations or regulations, conflict with the type of development permissible under existing zoning regulations or affect the maximum level of development allowed on any parcel. Proposed utility easements, however, would impose restrictions on that portion of a landowner's property below the surface within the easement corridor, such as the ability to disturb, excavate, or undertake any activities, including but not limited to and without limitation, well drilling or well improvement activities, anywhere below 50 feet of the current ground surface within the Tunnel Easement Area. The sections below, therefore, present an analysis of the potential socioeconomic effects of the proposed utility easements on affected parcels. This includes a discussion of the proposed easement restrictions that may limit a landowner's ability to develop land inclusive of an on-site water well or geothermal energy system and the potential for the proposed easements to result in a significant decrease in real estate-related tax revenues to the Town of Mount Pleasant or Westchester County compared to what might have otherwise been realized.

The City funds its ongoing water needs through water rates and the issuance of revenue bonds to support capital investments. New and existing capital improvements are estimated by DEP annually for the entire system and adjusted, as necessary, to ensure that annual operating revenues adequately address anticipated costs based on projected demand.⁴³ Changes to water rates associated with the capital and operating costs of the Proposed Action would be shared across DEP's water supply customers (City and upstate wholesale customers) as is the case for all DEP projects and spread over decades. Anticipated future water rate changes are forecasted to remain consistent with historic averages and no significant adverse impact associated with these is expected, therefore, no further analysis was warranted.

4.2.2 METHODOLOGY

An evaluation was completed of the potential effects of proposed easement restrictions to limit landowners' abilities to develop land, drill and connect to an on-site water well or geothermal energy system, and/or significantly affect real estate-related tax revenues to the Town of Mount Pleasant and Westchester County compared to what might otherwise be realized. This assessment included an identification of affected parcels and their current use. The assessment then identified potential easement restrictions and their effect on the development potential of affected parcels within the tunnel corridor. Development potential is based on several elements,

⁴³ Demand equates to the amount of water sold.

including what would be allowed under existing zoning, the maximum potential building potential, the extent of existing buildings on each parcel, existing use (e.g., vacant versus developed), and availability of water wells and/or geothermal energy systems. Limitations on above-ground development or access to an on-site water well or geothermal system could impact the value of a parcel, thus impacting tax revenues. As part of the assessment, potential water supply sources and the effect of the limitation of well drilling on affected parcels were identified and discussed.

4.2.3 EXISTING CONDITIONS

The deep rock KEC Tunnel alignment (see **Figure 1.3-7**) would cross several City-owned parcels, including the Kensico Campus and the KEC Eastview Site. These parcels do not have a need for water supply; therefore, further analysis of these was not warranted. In addition, the deep rock tunnel alignment would cross multiple public rights-of-way in the Town of Mount Pleasant (Columbus Avenue, Commerce Street, and Bradhurst Avenue), two State parkways (Taconic and Sprain Brook) and the Metro North Railroad. These rights-of-way would also not entail any current or future development that would require water supply; as a result no analysis of these parcels is warranted.

There are 17 remaining parcels with either existing development or the potential to be developed and/or expanded. Twelve of these parcels are within existing municipal water districts and would be able to secure water supply from these sources and would not rely on well drilling for the installation of any new water supply wells, see **Table 4.2-1**.

Table 4.2-1. Developable Tax Parcels along KEC Tunnel Alignment

Section/Block/Lot (SBL)	Ownership	Present Land Use	Source of Water Supply
117.7-1-30	Private	Residential	Public
117.7-1-31	Private	Residential	Public
117.7-1-38	Private	Residential	Public
117.7-1-50	Private	Residential	Public
117.7-1-37	Private	Residential	Public
117.6-1-31	Private	Residential	Public
117.6-1-32	Private	Residential	Public
117.6-1-41	Mt. Eden Cemetery Assn.	Cemeteries	None
117.6-1-40	DP 16 LLC	Office and Research	Public
117.10-1-1	Gate of Heaven Cemetery	Cemeteries	None
117.9-1-4	Gate of Heaven Cemetery	Cemeteries	None
117.9-1-6	Hawthorne Foundation Inc.	Institutional Public Assembly	None
117.9-1-8	County of Westchester	Institutional Public Assembly	Public
117.13-1-2	County of Westchester	Institutional Public Assembly	None
116.12-1-7	County of Westchester	Institutional Public Assembly	Public
116.12-1-18	County of Westchester	Institutional Public Assembly	Public
116.12-1-16	County of Westchester	Institutional Public Assembly	Public

For the five parcels noted in **Table 4.2-1** that do not currently have a documented private water supply well or are not located within a water district, three are cemeteries, one is owned by the Hawthorne Foundation, and one is a Westchester County parcel. The three cemetery parcels include two that are part of the Gate of Heaven Cemetery and one that is part of Mount Eden Cemetery. The proposed easement crosses the Gate of Heaven Cemetery just south of the middle of the cemetery and the Mount Eden Cemetery at its southern boundary. According to Westchester County GIS mapping, an aquifer exists below both cemeteries. This aquifer is noted to have a capacity to pump 10 to 100 gpm. The parcel that is owned by the Hawthorne Foundation is one of the two parcels that include the Hawthorne Day School. The Hawthorne Day School has current access via an existing water supply district. The final parcel is owned by Westchester County and is part of the Grasslands Reservation. This is one of two parcels that together make up the site of one of Westchester County's water tanks and do not include any development that would require a water supply.

4.2.4 FUTURE WITHOUT THE PROPOSED ACTION

Several DEP projects would be implemented in the future without the Proposed Action. On the Kensico Campus, these include the Waterfowl Management Program Building, the Kensico Regional Headquarters, and various minor projects at DEL Shaft 18. DEP projects at the KEC Eastview Site include the installation of cleanouts and foundation drain modifications at the CDUV Facility and the potential to install a carport and rooftop solar project. These DEP projects would not result in any changes to socioeconomic conditions in the future without the Proposed Action.

Likewise, in the future without the Proposed Action, no additional significant changes in socioeconomic conditions within the Kensico Campus and KEC Eastview Site study areas would be anticipated with the development of the Landmark at Eastview North Campus Expansion, Landmark at Eastview South Campus Parcel D, and Regeneron Greenburgh Expansion project. Conditions are anticipated to remain largely the same as today. Similarly, new utility easements would not be required, and no potential restrictions associated with these would be necessary.

4.2.5 FUTURE WITH THE PROPOSED ACTION

In the future with the Proposed Action, the proposed subsurface utility easements along the tunnel alignment would ensure adequate protection of the tunnel infrastructure. Once the easements are established, usage rights and activity restrictions would encompass a zone with defined lateral and vertical dimensions. On either side of the tunnel centerline, the easement would extend 75 feet horizontally, for a total zonal width of 150 feet. In addition, a restriction on any subsurface activity (e.g., excavation, blasting) beyond 50 feet below current ground surface (cgs) and a prohibition on all well drilling and well improvement activities within the easement area would also be put in place. Construction of the proposed deep rock tunnel and corresponding proposed utility easements would not result in any physical change to the current

ground surface, subsurface structures, or land features outside of Kensico Campus and the KEC Eastview Site study areas. The tunnel construction and operation would not preclude changes from being made to land uses at the ground surface either within or beyond lateral bounds of the easement, or new development at or above the ground surface within or beyond the easement and would not restrict future expansion or modification of existing structures or development of parcels above or at grade, or within 50 feet of the ground surface within or beyond the easement.

The proposed utility easements would not be expected to result in changes to existing or potential future zoning designations or regulations, or to conflict with the type of reasonably-anticipated development or uses currently permissible under existing zoning regulations, or to affect the maximum level of development allowed on any parcel subject to the easements. Since there would be no restrictions within 50 feet of current ground surface that would limit a landowner’s ability to develop or expand development on an affected parcel, nor any foreseeable uses that would require greater depths within the easement alignment, the Proposed Action would have no impact to a landowner’s ability to develop their parcels within current zoning regulations. Based on a review of allowable uses within the zoning districts along the tunnel alignment (i.e., R-40, R-20, R-10, M-1, and OB-2), none of the zoning districts currently permit mining, hydraulic fracturing, or other such subsurface activities which would be restricted by the proposed utility easements.

In addition to limiting development potential below 50 feet, restrictions of the proposed utility easements include prohibiting the landowner from drilling wells (whether for water, geothermal energy, or other purpose that can be reasonably forecast) within that portion of a landowner’s property located within the limits of the easement corridor.

As noted previously in **Table 4.2-1**, the deep rock tunnel alignment would only cross five parcels that do not currently have a documented private water supply well or are not located within a water district. For these five parcels, **Table 4.2-2** provides the percentage of each parcel that would be restricted from subsurface activities. These percentages vary from less than 1 percent to 17 percent, thereby providing sufficient available space within the parcels outside of the easement limits to allow for the drilling of a drinking water supply well, if necessary.

Table 4.2-2. Area (Acres) of Proposed Easement within Tax Parcels

Section/ Block/Lot (SBL)	Ownership	Present Land Use	Total Parcel Size (Acres)	Proposed Easement Area (Acres)	Percent of Tax Parcel in Proposed Easement Area
117.6-1-41	Mt. Eden Cemetery Assn.	Cemeteries	29.8	2.1	7%
117.10-1-1	Gate of Heaven Cemetery	Cemeteries	23.2	3.9	17%
117.9-1-4	Gate of Heaven Cemetery	Cemeteries	41.5	3.8	9%

Table 4.2-2. Area (Acres) of Proposed Easement within Tax Parcels

Section/ Block/Lot (SBL)	Ownership	Present Land Use	Total Parcel Size (Acres)	Proposed Easement Area (Acres)	Percent of Tax Parcel in Proposed Easement Area
117.9-1-6	Hawthorne Foundation, Inc.	Institutional Public Assembly	7.4	0.8	11%
117.13-1-2	County of Westchester	Institutional Public Assembly	33.5	0.004	0.01%

The proposed easements would also restrict the potential for the installation of other types of deep wells, such as those for geothermal heating/cooling, within the easement area. Potential limitations on the placement of geothermal wells, however, are expected to have no effect to tax levies, as they are an optional, alternative heating/cooling source. In addition, all of the parcels to be affected by an easement include areas beyond the easement boundaries that could be used for such wells.

As part of the Proposed Action, DEP would compensate landowners for any diminution in the fair market value of their parcels due to the easement.

Likewise, the proposed utility easements would not be expected to affect existing tax levies from any of the parcels along the tunnel alignment since the assessed values and tax rates of these parcels would be unlikely to change as a result of the easements. Furthermore, increases in future tax levies on these parcels would not be expected to be influenced by the proposed easements, since any likely building expansion and development would not be restricted and limitations on access to typical subsurface resources would not be meaningfully reduced by the easements. Therefore, the proposed utility easements are not expected to result in any significant adverse effects to tax revenues in the Town of Mount Pleasant or Westchester County.

Based on the results of the socioeconomic assessment, the Proposed Action and associated utility easements would not result in direct or indirect displacement of residential populations or businesses or have any significant adverse effects on the ability of any landowner to access typical subsurface resources to support existing or future development. In addition, the proposed utility easements would not result in the displacement of existing land uses or alteration of existing development trends, or result in any significant decrease in tax revenues received by any affected jurisdiction. Therefore, the Proposed Action would not result in a significant adverse effect to socioeconomic conditions.

4.3 URBAN DESIGN AND VISUAL RESOURCES

4.3.1 INTRODUCTION

This section presents the assessment of the Proposed Action to result in potential changes to views to or from visual resources or within view corridors with aesthetic value. A visual resource is defined as a connection from the public realm to significant features, such as public parks, landmark or historic structures, or other iconic natural resources. An assessment of potential impacts to urban design and visual resources was completed for the two proposed project sites (Kensico Campus and KEC Eastview Site) that would be visually altered due to the Proposed Action.

The *CEQR Technical Manual* suggests that an assessment of urban design is needed when a project may have an effect on one or more of the elements that contribute to the pedestrian experience of public space. Pedestrian activity in proximity to the two proposed sites is limited due to the nature of the proposed project sites and the suburban character and land uses within the surrounding communities in proximity to these. The KEC Eastview Site is fenced, with no public or pedestrian access. The Kensico Campus, while not currently secured, is a fenced area where public or pedestrian access is limited to existing public roadways. The Proposed Action would not promote or encourage pedestrian activity. Of the roadways adjacent to the Kensico Campus, only Columbus Avenue and a portion of Westlake Drive include a sidewalk for pedestrian access. The roadways adjacent to the KEC Eastview Site do not contain any sidewalks for pedestrian access. Due to the limited pedestrian presence on the roadways and/or sidewalks adjacent to the Proposed Action, the visual assessment focused largely on the potential to affect aesthetic and visual resources and an assessment of urban design is not warranted.

Under SEQRA, aesthetic and visual impacts to the environment were assessed as part of the environmental review. An aesthetic impact occurs if a project impacts the public's use and enjoyment of the appearance or quality of a resource. As such, this assessment of visual resources focused on the identified resources or locations that may have visibility of the Kensico Campus and KEC Eastview Site and the potential changes to the views as a result of the Proposed Action.

4.3.2 METHODOLOGY

For the assessment of potential impacts to visual resources, a study area of approximately one-half mile around both the Kensico Campus and KEC Eastview Site was evaluated. As part of the assessment of potential impacts to and/or from visual resources, existing visual resources were identified, including any existing public view corridors, such as adjacent roadways. As part of the future without the Proposed Action, other proposed projects that are anticipated to be completed by the Proposed Action's Build Year were reviewed to determine if these would alter existing views. Using the future without the Proposed Action as a baseline condition, potential

changes in the views, such as a new building blocking a view or the removal of vegetation creating a new view, were assessed. The changes in the view and if any significant views would be eliminated or substantially limited from the visual resources were then identified.

NYSDEC has developed a methodology for assessing and mitigating visual impacts (NYSDEC Program Policy DEP-00-2⁴⁴ /*Assessing and Mitigating Visual and Aesthetic Resources*). This policy was developed for NYSDEC to use in the review of proposed actions and defines:

- What visual and aesthetic impacts are;
- Describes when a visual assessment is necessary and how to review a visual impact analysis;
- Provides guidance on establishing a “baseline” to assess visual impact;
- Provides guidance on the determination of impacts and their significance; and
- Provides guidance for assessing resources of local concern.

This policy was intended to address places or locations that have been officially designated for their aesthetic qualities and are accessible to the public.

NYSDEC provides a list of 15 categories of State aesthetic and visual resources that should be included as part of an evaluation of the potential for impacts to visual resources. **Table 4.3-1** presents a summary of these 15 categories and then identifies if those resources are applicable to the KEC Project. Local resources are also considered in this analysis, such as local parks, trails, and public view corridors of scenic or community importance.

Table 4.3-1. Visual Resources Inventory Summary

Aesthetic and Visual Resource	Description	Identified within Study Area
National/State Register of Historic Places	Listed or eligible for listing on the National or State Register of Historic Places (sites, districts, buildings, structures, and objects that are deemed worthy of preservation).	Yes – Kensico Campus and KEC Eastview Site
State Parks	Identified by New York State Department of Parks, Recreation and Historic Preservation to encourage, promote, and provide recreational opportunities.	No
Heritage Areas	Designated by New York State as special places to honor history, celebrate the present, and plan the future of our communities.	No

⁴⁴ https://www.dec.ny.gov/docs/permits_ej_operations_pdf/visualpolicydep002.pdf

Table 4.3-1. Visual Resources Inventory Summary

Aesthetic and Visual Resource	Description	Identified within Study Area
State Forest Preserve/State Forests	State Forest Preserves are designated by the New York State Legislature within and protected as “forever wild.” State Forests are lands acquired and managed by NYSDEC as Reforestation Areas, Multiple Use Areas, Unique Areas, and State Nature and Historic Preserves, as authorized by the 1929 State Reforestation Act.	No
National/State Wildlife Refuge, State Wildlife Management Areas	Designated by the National Wildlife Refuge System Administration Act to conserve fish, wildlife, and plants. State Game Refuges are designated as lands for the protection of fish and wildlife. State Wildlife Management Areas are designated for the protection and promotion of fish and wildlife resources.	No
National Natural Landmark	Designated by the Secretary of the Interior under the National Natural Landmarks Program as conservation sites that contain outstanding biological and geological resources, including both public and private lands, and are selected for their condition, illustrative value, rarity, diversity, and value to science and education.	No
National Park and System, Recreation Areas, Seashores, Forests	Established by an Act of Congress to identify Parks, Preserves, Battlefields, Memorials, Recreation Areas, Seashores, Monuments, Rivers, Parkways, and Cemeteries as significant resources.	No
National/State Wild, Scenic or Recreational Rivers	Established by an Act of Congress under the Wild and Scenic Rivers Act and New York State Wild, Scenic, and Recreational Rivers Act for outstanding natural, cultural, and recreational values in a free-flowing condition.	No
Scenic Site, Area, Lake, Reservoir, or Highway	Designated and defined by ECL Article 49, Protection of Natural and Man-Made Beauty or highways designated by the U.S. Department of Transportation Federal Highway Administration or the New York State Department of Transportation as scenic roads and byways.	Yes – Kensico Campus
Scenic Areas of Statewide Significance	Designated by the New York State Department of State to identify the scenic qualities of coastal landscapes that possess inherent scenic qualities, including the presence of water, dramatic shorelines, expansive views, historic landings, working landscapes, and great estates.	No
National/State Trails	Federal trails are designated by the Secretary of the Interior or the Secretary of Agriculture. State trails are part of New York State Parks, Historic Sites, and Forests to provide a variety of outdoor recreation uses.	No
Adirondack Park Scenic Vistas	Identified in the Adirondack Park State Land Master Plan as scenic pull-offs within the Adirondack Park, as established by an Act of the State Legislature and defined by Adirondack Park Agency and NYSDEC.	No

Table 4.3-1. Visual Resources Inventory Summary

Aesthetic and Visual Resource	Description	Identified within Study Area
State Nature and Historic Preserve Areas	Designated by the State Legislature for the protection of natural resources, development of agricultural lands, and to conserve and protect its natural resources and scenic beauty and encourage the development and improvement of its agricultural lands for the production of food and other agricultural products.	No
Palisades Interstate Park	The Palisades Interstate Park Commission operates the Park in New Jersey and the State Parks and Historic Sites that comprise the State's Palisades Region. Palisades Interstate Park Commission's mission is to support, protect, and educate the public and raise awareness of the natural and cultural resources of the parks and historic sites of the Palisades Interstate Park system.	No
Bond Act Properties	Bond Act properties are properties purchased under the "exceptional scenic beauty" or "open space" category of the Environmental Bond Act of 1986, established by the NY State Legislature.	No
American Heritage River	The American Heritage Rivers Protection Program, created by Executive Order, and designated by the U.S. Environmental Protection Agency to advance three objectives: natural resource and environmental protection; economic revitalization; and historic and cultural preservation.	No
Local	Defined and/or designated by regional planning entities, such as counties, and local communities, such as municipalities.	Yes – Kensico Campus and KEC Eastview Site

According to DEP-00-2, aesthetic impacts occur when there is a detrimental effect on the perceived beauty of a place or structure. Significance is determined where impacts cause a diminishment of the public enjoyment of the resource or impairs the character or quality of a place.

4.3.3 EXISTING CONDITIONS

An inventory of existing visual resources was completed and is discussed below. As part of this, a site visit to both the Kensico Campus and KEC Eastview Site was conducted on March 23, 2021, and photographs were taken from various vantage points to capture the visual character of the area from the inventoried visual resources and surrounding roadways. The views from surrounding roadways were assessed, as applicable, including specific locations identified by the Town of Mount Pleasant as important views to be included in the assessment. The vantage points were all from publicly-accessible locations at visual resources that represent views that could be altered by the Proposed Action. Photographs were taken during the leaf-off season to

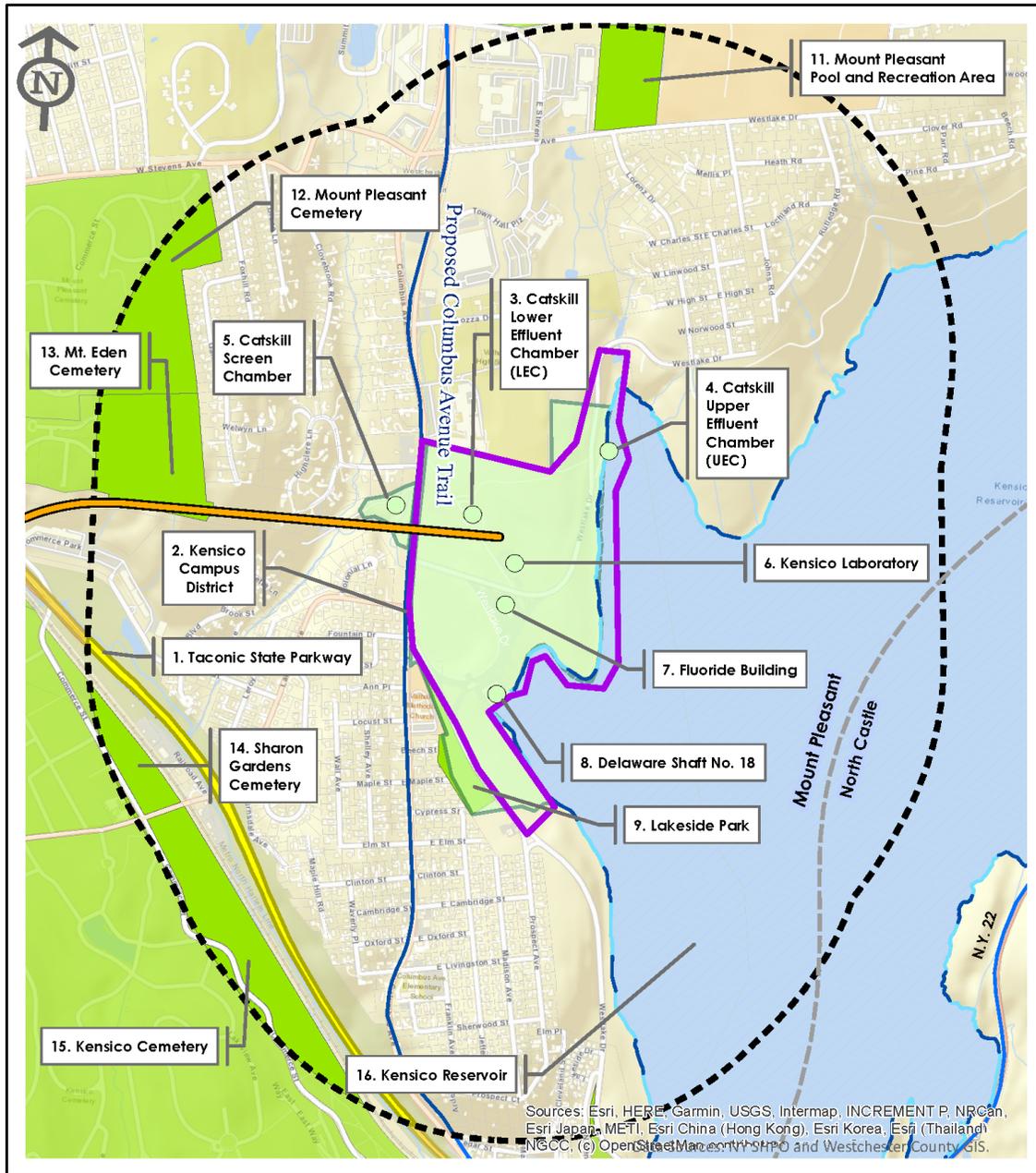
illustrate a worst-case scenario, as during leaf-on seasons, vegetation is anticipated to provide additional screening.

4.3.3.1 Kensico Campus

The Kensico Campus study area for the visual resources analysis was an area within one-half mile of the Kensico Campus, but also includes view corridors that extend beyond this limit based on the locations that are publicly accessible. As shown on **Table 4.3-2** and **Figure 4.3-1**, visual resources identified included one site, the Taconic State Parkway; one National Register of Historic Places (NRHP)-eligible district with six individual NRHP-eligible structures; and numerous local resources that are also located within the Kensico Campus study area.

Table 4.3-2: Visual Resources – Kensico Campus Study Area

ID No.	Visual Resource	Visual Resource Type
1	Taconic State Parkway	State/National Register of Historic Places / Scenic Byway
2	Kensico Campus District	State/National Register of Historic Places (Eligible)
3	Lower Effluent Chamber ⁽¹⁾	State/National Register of Historic Places (Eligible)
4	Upper Effluent Chamber ⁽¹⁾	State/National Register of Historic Places (Eligible)
5	Catskill Screen Chamber ⁽¹⁾	State/National Register of Historic Places (Eligible)
6	Former Kensico Laboratory Building ⁽¹⁾	State/National Register of Historic Places (Eligible)
7	Fluoride Building ⁽¹⁾	State/National Register of Historic Places (Eligible)
8	Delaware Shaft 18 ⁽¹⁾	State/National Register of Historic Places (Eligible)
9	Lakeside Park	Local Resource
10	Kensico Dam Plaza	Local Resource
11	Mount Pleasant Pool and Recreation Area	Local Resource
12	Mount Pleasant Cemetery	Local Resource
13	Mount Eden Cemetery	Local Resource
14	Sharon Gardens Cemetery	Local Resource
15	Kensico Cemetery	Local Resource
16	Kensico Reservoir	Local Resource
NA	Surrounding Roadways	Local Resource
Note:		
(1) Structures eligible individually, part of the historic district		



LEGEND

- Kensico Campus
- Listed Historic Site (Parcel)
- Proposed Tunnel Alignment
- Study Area Boundaries (East)
- County Trails
- Municipal Boundary
- Eligible Historic Site (Building)
- Eligible Historic Site (Parcel)
- Open Space Resources

0 0.125 0.25 0.5 Miles

Figure 4.3-1. Visual Resources – Kensico Campus Study Area



Historic Resources

As discussed in Section 3.6, “Historic and Cultural Resources” and noted in **Table 4.3-2** and **Figure 4.3-1** above, the NRHP-eligible district has six individual NRHP-eligible structures, five of the structures contained on the Kensico Campus and one located on the west side of Columbus Avenue. These were noted as eligible for listing based on the SHPO/NYSOPRHP criteria for significance in engineering, community planning and development, and architecture. These structures are visible from Columbus Avenue and were assessed herein.

In addition, the Taconic State Parkway is listed on the NRHP. The Taconic State Parkway, winding and landscaped, is a historic divided highway that runs north-south and carries four lanes of traffic through the southwestern portion of the Kensico Campus study area. The Taconic State Parkway is located west of the Kensico Campus and at its closest is approximately 0.4 miles away. Due to its distance and existing vegetation along the Taconic State Parkway, the Kensico Campus is not visible from the parkway and no further analysis was warranted.

Scenic Byway

The Taconic State Parkway is also designated as a scenic byway by NYSDOT. As noted above, the Kensico Campus is not visible from the parkway and no further analysis was warranted.

Local Resources

As discussed in Section 3.3, “Open Space and Recreation,” there are local open space resources within the Kensico Campus study area that could be affected by changes in aesthetic character. These local resources include Kensico Reservoir east of the Kensico Campus, Mount Pleasant Pool and Recreation Area to the north, Lakeside Park, and a small portion of Kensico Dam Plaza County Park to the south, and several cemeteries to the west. Kensico Reservoir and Lakeside Park are the only resources in the Kensico Campus study area with views of the Kensico Campus. While outside of the one-half mile study area, the walkway over the Kensico Dam at the Kensico Dam Plaza County Park also has views/vista that include the Kensico Campus. The Mount Pleasant Pool and Recreation Area, the cemeteries noted in **Table 4.3-2**, and a majority of the Kensico Dam Plaza County Park do not have views of Kensico Campus, and no further analysis was warranted for those locations.

In addition, several roadways or intersections within the surrounding neighborhood were considered. These were identified in conjunction with the Town of Mount Pleasant due to their proximity to the Kensico Campus, and include the following:

- Westlake Drive, near the UEC, behind the Valhalla High School
- Columbus Avenue and Aerator Road
- Columbus Avenue and Westlake Drive

- Columbus Avenue and Lakeview Avenue
- Columbus Avenue and Fountain Drive
- West Westlake Drive, northeast of Valhalla United Methodist Church
- West Westlake Drive and Prospect Avenue

Figure 4.3-2 provides a key map for photographs acquired within the Kensico Campus study area.

The following photographs illustrate various existing views of and around the Kensico Campus from locations along adjacent roadways and intersections. As indicated in these photographs, Kensico Reservoir is not visible from any of these locations.

Figure 4.3-3 depicts the view along Westlake Drive near the UEC and behind Valhalla High School, which is located to the right and out of view beyond the power lines. The view from this location is dominated by existing pavement, vegetation, and power lines and the associated utility right-of-way.

Figure 4.3-4 depicts the view from Columbus Avenue at its intersection with Aerator Road, just south of Valhalla High School. View is dominated by existing vegetation within the Kensico Campus with the LEC visible in the background.

Figure 4.3-5 is also from Columbus Avenue, just south of Valhalla High School. As illustrated, this view is dominated by the LEC and the open grassed areas of the former Catskill Aerator. The open grassed areas of the former Delaware Aerator and DEL Shaft 18 are visible in the distance, beyond Westlake Drive as it divides the campus.

Figure 4.3-6 depicts the view of Westlake Drive at Columbus Avenue. This view is dominated by Westlake Drive and the open grassed areas of the former Catskill Aerator to the left. In the distance are the LEC (left), the former Kensico Laboratory building (center), and several trailers (right). The forested areas of the Kensico Campus provide a backdrop.

Figure 4.3-7 presents the view from Columbus Avenue at Lakeview Avenue. As illustrated, this view is dominated by the open grassed areas of the former Delaware Aerator in the foreground. In the distance are the LEC (left), the former Kensico Laboratory building (right-center), and several DEP trailers (right). The forested areas of the Kensico Campus provide a backdrop to the overall view.

Similar to above, **Figure 4.3-8** depicts the view from Columbus Avenue at Fountain Drive. This view is also dominated by the open grassed areas of the former Delaware Aerator in the foreground. In the distance are the LEC (left), the former Kensico Laboratory building (right-center), and several DEP trailers (right). The forested areas of the Kensico Campus provide a backdrop.



Figure 4.3-2. Photographic Viewpoints – Kensico Campus





Figure 4.3-3. Photograph Location A – View Looking Southwest from Westlake Drive near the Upper Effluent Chamber





Figure 4.3-4. Photograph Location B – View Looking East along Columbus Avenue at its Intersection with Aerator Road with the Lower Effluent Chamber at Right





Figure 4.3-5. Photograph Location B – View Looking Southeast from Columbus Avenue at Intersection with Aerator Road with Lower Effluent Chamber at Left and DEL Shaft 18 at Right





Figure 4.3-6. Photograph Location C – View Looking East from along Columbus Avenue at its Intersection with Westlake Drive with Lower Effluent Chamber at Left, Former Kensico Laboratory Building in Center and Existing Trailers at Right





Figure 4.3-7. Photograph Location D – View Looking Northeast from along Columbus Avenue at Intersection with Lakeview Avenue with Lower Effluent Chamber at Left, Former Kensico Laboratory Building in Center and Existing Trailers at Right





Figure 4.3-8. Photograph Location E – View Looking Northeast from along Columbus Avenue at Fountain Drive with Lower Effluent Chamber at Left and Former Kensico Laboratory Building and Existing Trailers at Right



Figure 4.3-9 depicts the view from West Westlake Drive, northeast of the Valhalla United Methodist Church and at the northern edge of Lakeside Park. This view is dominated by the open grassed areas of the former Delaware Aerator and the DEP entrance to DEL Shaft 18 at right. In the distance are the LEC (left-center), several DEP trailers in front of the former laboratory building (right-center), and the fluoride buildings (right). The forested areas of the Kensico Campus provide a backdrop. It is noted that existing power lines and distant water storage tanks (located more than one-half mile north of this location) are visible above and beyond the LEC.

Figure 4.3-10 represents the view from West Westlake Drive at Prospect Avenue, just south of Lakeside Park. This view is dominated by roadside vegetation along West Westlake Drive. DEL Shaft 18 is visible beyond the vegetation, however during leaf-on seasons, the structure would be further screened from view.

Figure 4.3-9 and **Figure 4.3-10** also represent views from the northern and southern most points of Lakeside Park. Kensico Reservoir is not visible from either of these locations, although the reservoir is visible from Lakeside Park itself. Lakeside Park is a public access Town park that consists of several soccer fields. There is limited seating provided at the park, and all the current seating faces away from the reservoir, looking towards the west and the soccer fields.

Figure 4.3-11 represents the view of the Kensico Campus from the walkway on the Kensico Dam at Kensico Dam Plaza County Park. As illustrated, this view is dominated by Kensico Reservoir and the forested areas of the campus. The LEC (left) and the UEC (right) are the structures visible from this location. In addition, the temporary trailer and white tent of DEP's current waterfowl management operations are visible at left. Recent shoreline stabilization work being completed by DEP under a separate contract is visible at center, with new riprap along the water's edge. As the Kensico Dam is approximately one mile south of the Kensico Campus, some of the details of the buildings and other site elements are not discernible.



Figure 4.3-9. Photograph Location F – View Looking Northeast along West Westlake Drive at Valhalla United Methodist Church Displaying DEP Entrance to DEL Shaft 18 at Right, Lower Effluent Chamber (left-center), Several DEP Trailers in Front of Former Kensico Laboratory Building (right-center) and Fluoride Buildings (right).





Figure 4.3-10. Photograph Location G – View Looking North/northwest along West Westlake Drive at Prospect Avenue with DEL Shaft 18 Visible Behind Trees at Right





Figure 4.3-11. Photograph Location H – View Looking Northwest from the Kensico Dam at Kensico Dam County Park, Upper Effluent Chamber is Visible at Right and Former Delaware Aerator on the Kensico Campus at Left



4.3.3.2 KEC Eastview Site

The KEC Eastview Site study area was also approximately one-half mile from the KEC Eastview Site. There are no view corridors that extend beyond the study area. Visual resources, as noted in **Table 4.3-3** and **Figure 4.3-12**, consist of one historic site, Hammond House, and one local resource within the KEC Eastview Site study area.

Table 4.3-3. Visual Resources – KEC Eastview Site Study Area

ID No.	Visual Resource	Visual Resource Type
1	Hammond House	National Register of Historic Places (Listed)
NA	Tarrytown-Kensico Trailway	Local Resource

Historic Resources

As discussed in Section 3.6, “Historic and Cultural Resources,” Hammond House is listed on the NRHP. Hammond House, a farmhouse dating from the early 18th century, is significant due to its local history associated with the Revolutionary War. The structure is located on the north side of Grasslands Road, immediately adjacent to and south of the KEC Eastview Site. The structure is surrounded by existing vegetation and is partially screened from Grasslands Road.

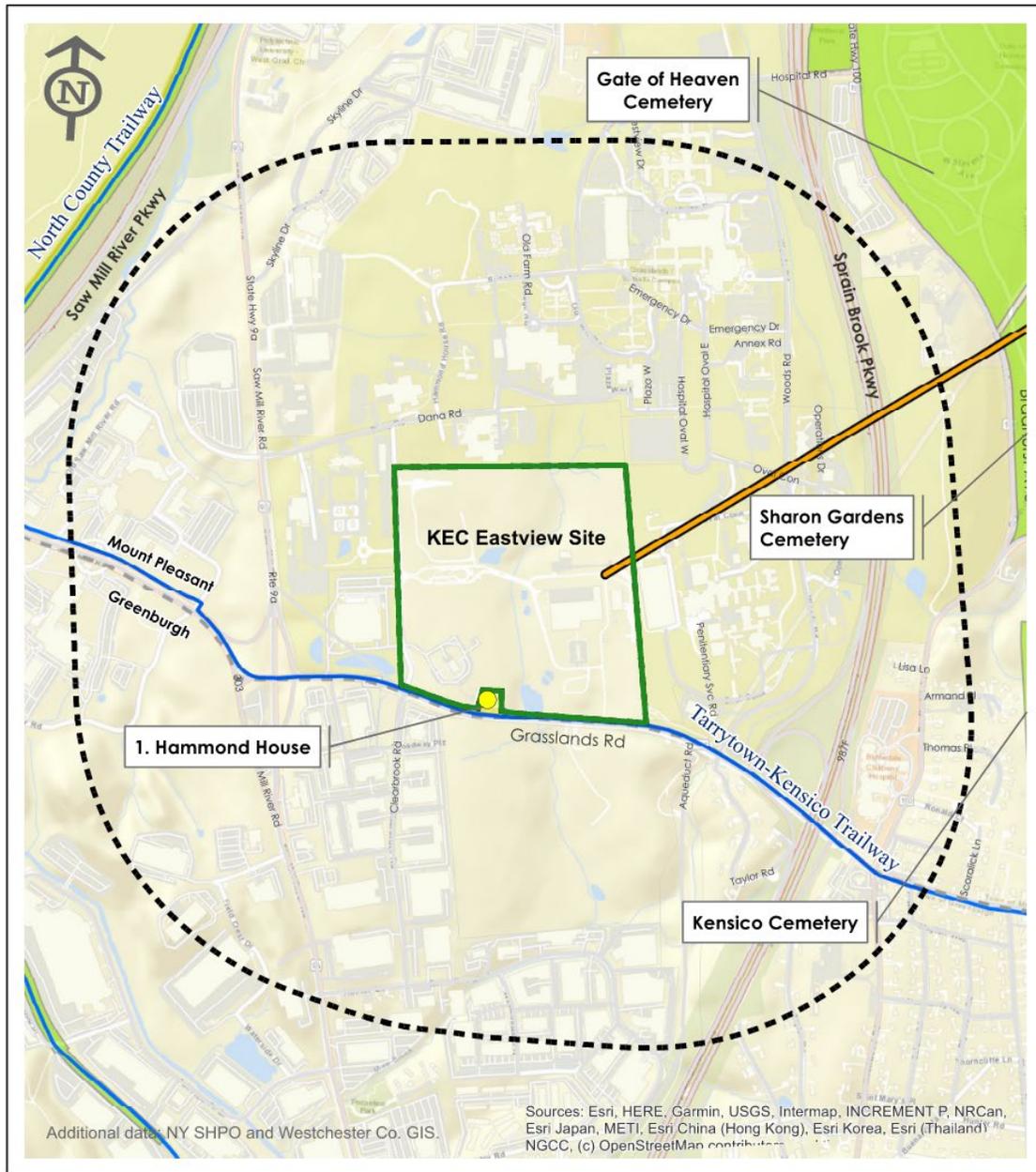
Local Resources

The Tarrytown-Kensico Trailway runs along Grasslands Road through the KEC Eastview Site study area and is directly adjacent to the southern boundary of the KEC Eastview Site. This trailway provides a five-foot-wide shoulder along the roadway for bicycle use. There is no sidewalk for pedestrian access.

Figure 4.3-13 provides a key map for photographs acquired within the KEC Eastview Site study area.

Figure 4.3-14 shows Hammond House located on the north side of Grasslands Avenue. Hammond House is surrounded by existing vegetation. Details of the existing CDUV Facility beyond the vegetation are not discernible.

As illustrated in **Figure 4.3-15**, the existing CDUV Facility within the KEC Eastview Site is visible along the portion of Grasslands Road and the Tarrytown-Kensico Trailway directly south of the facility.

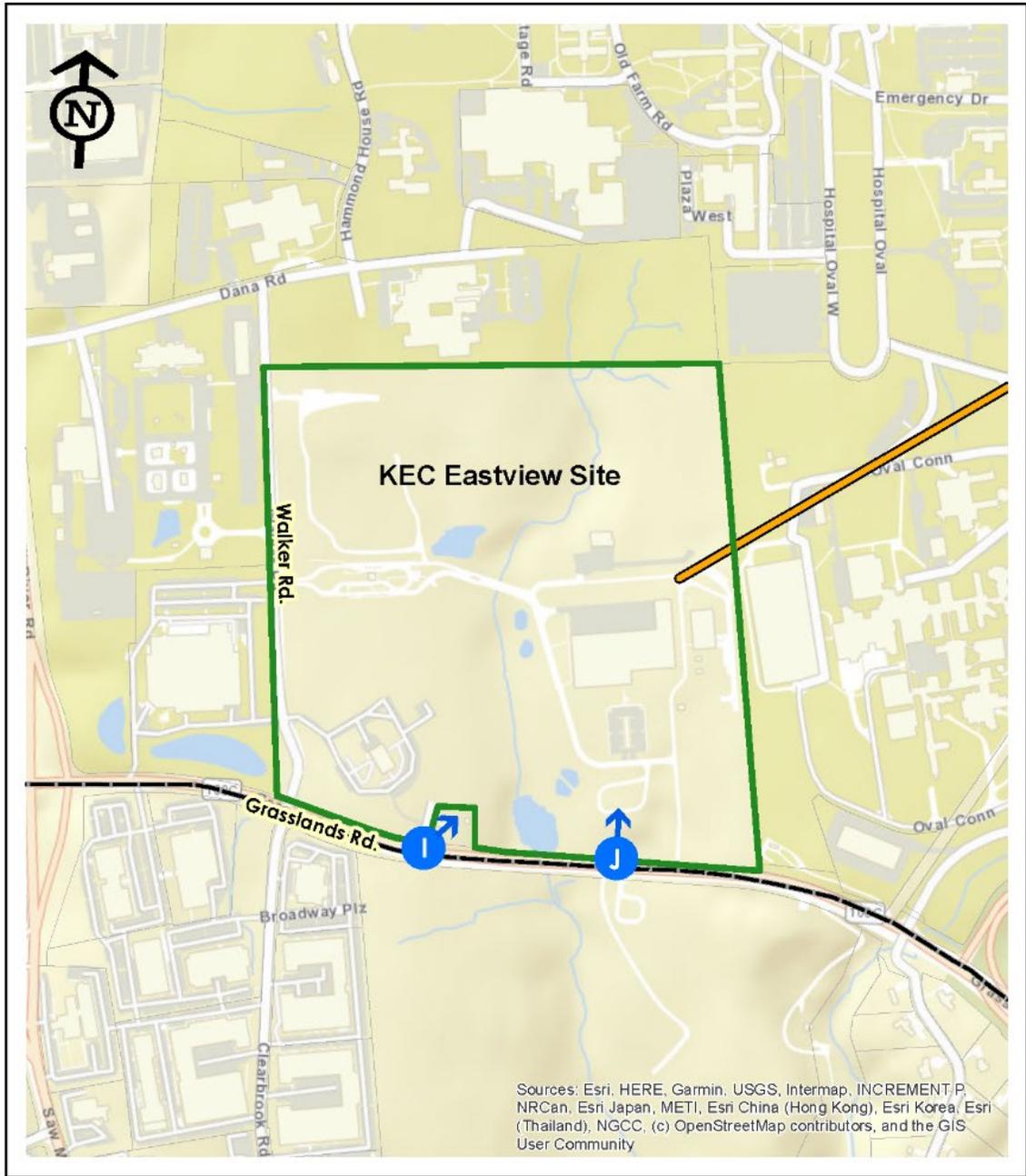


LEGEND

- KEC Eastview Site
 - Study Area Boundary (West)
 - Listed Historic Site (Building)
 - Open Space Resources
 - County Trails
 - Proposed Tunnel Alignment
 - Municipal Boundary
- 0 0.125 0.25 0.5 Miles

Figure 4.3-12. Visual Resources – KEC Eastview Site Study Area





LEGEND

- KEC Eastview Site
- Tax Parcels
- Municipal Boundary
- Proposed Tunnel Alignment
- A Viewpoint & Perspective



Figure 4.3-13. Photographic Viewpoints – KEC Eastview Site





Figure 4.3-14. Photograph Location I – View Looking North/northeast from Grasslands Avenue towards Hammond House





Figure 4.3-15. Photograph Location J – View Looking North along the Tarrytown-Kensico Trailway with CDUV Facility in Background



4.3.4 FUTURE WITHOUT THE PROPOSED ACTION

Several DEP projects, independent of the KEC Project, would be implemented in the future without the Proposed Action. On the Kensico Campus, these include the Waterfowl Management Program Building, the Kensico Regional Headquarters, and minor projects at DEL Shaft 18. None of these projects are anticipated to significantly change the visual character of the Kensico Campus, although they would include the removal of several temporary trailers visible from Columbus Avenue. The Kensico Regional Headquarters, which involves the re-purposing of the former Kensico Laboratory building and DEL Shaft 18 projects predominately involve efforts interior to these structures. The Waterfowl Management Building would replace existing trailers with a permanent structure. The Public Design Commission (PDC) recently recognized this building design as one of its 39th Annual Awards recipients for Excellence in Design (see **Figure 4.3-16**).

As noted in Section 4.3.3.1, “Kensico Campus,” numerous viewpoints currently include visibility of temporary construction trailers that would be removed upon the completion of the DEP projects noted above. The only viewpoint with visibility of the existing waterfowl trailer and tent, as well as the proposed Waterfowl Management Building is from the Kensico Dam, more than one mile away, where details of the structures may not be discernible.

At the KEC Eastview Site, DEP projects include the installation of new cleanouts and foundation drain modifications at the CDUV Facility. This project consists of underground work and would not result in changes to any structures. In addition, DEP may potentially locate a solar project at the KEC Eastview Site. This project would be visible from Grasslands Road, as a solar carport canopy would be installed over an existing parking lot, just south of the CDUV Facility and on the roof of the CDUV Facility. The solar carport canopy would not extend above the existing CDUV Facility. Neither project would significantly alter the visual character of the KEC Eastview Site.

In addition, several non-DEP projects would occur during the future without the Proposed Action. The Landmark at Eastview North Campus Expansion, Landmark at Eastview South Campus Parcel D, and Regeneron Greenburgh Expansion would occur in proximity to the KEC Eastview Site. These are located approximately one-half mile west of the KEC Eastview Site and include the expansion of the existing research/lab uses at the campuses with the replacement of buildings and construction of new buildings. The KEC Eastview Site is not visible from these locations.

With the exception of the new Waterfowl Management Program Building which would result in a minor change in the view of the Kensico Campus from Kensico Dam, no other future without the Proposed Action projects are anticipated to result in significant alterations in visual character at the Kensico Campus or the KEC Eastview Site from existing conditions.



Figure 4.3-16. Rendering of DEP’s Waterfowl Management Building



4.3.5 FUTURE WITH THE PROPOSED ACTION

Changes in the visual character of the Kensico Campus and KEC Eastview Site would be associated with operation of the Proposed Action, after construction is complete. The design of the new facilities and landscape modifications, such as the KEC Screen Chamber and electrical building, have received preliminary approval from the NYC Public Design Commission (PDC) for consistency with applicable standards and guidelines to ensure that the Proposed Action provides innovative, sustainable, and equitable designs and remains compatible with the existing sites and surrounding land uses. The designs would also undergo review by the Town of Mount Pleasant for consistency with applicable standards and guidelines and to ensure that the Proposed Action remains compatible with the surrounding land uses.

The Kensico Campus and KEC Eastview Site currently operate as part of DEP's Water Supply System and would continue to operate as such once construction is completed. Lighting for the proposed structures would be similar to that of the existing structures on the Kensico Campus and KEC Eastview Site which provide adequate security lighting for the facilities. An analysis of lighting levels would be developed as part of the site plan application and would be in compliance with the applicable town codes related to lighting standards.

4.3.5.1 Kensico Campus

There are numerous buildings that would be constructed as part of the Proposed Action. The architectural character of these buildings is described below.

The KEC Screen Chamber building would represent the tallest building of the overall Kensico Campus, at approximately 70 feet, as shown on **Figure 4.3-17** and **Figure 4.3-18**. The building would be located between the LEC and the Kensico Regional Headquarters, although it would be set back from these buildings. The design intent was to establish a contemporary aesthetic that speaks to the monumentality of the existing architecture. The materials of the building take into consideration the context of the existing surroundings and would both compliment and contrast those elements. Proposed landscaping around the KEC Screen Chamber would reduce the visual effects of the building, while maintaining view corridors to other structures on the Kensico Campus, such as the police booth.

A new electrical building would also be constructed along Aerator Road (see **Figure 4.3-19**). This would be located southeast of the Kensico Regional Headquarters.

The UEC would primarily require mainly interior modifications to the structure. However, a new roof, consistent with the historic context and architectural style of the existing UEC roof, would also be installed. This is not expected to change the visual character of the UEC. Additional minor exterior repairs to the UEC would be required but would not significantly alter the structure or its appearance. It is noted that the UEC is not visible from most of the surrounding

area, such as Columbus Avenue. The UEC is visible from limited portions of Westlake Drive and Kensico Dam Plaza (see **Figure 4.3-11**) although, given the distance to the UEC, details of the structure are not discernible from Kensico Dam.

As part of the Proposed Action, DEP would install a fence around the entire perimeter of the Kensico Campus, consisting of new fencing and the replacement of existing fencing. This, along with a new DEP police booth and office that would be established along the former Westlake Drive, are part of overall security improvements for the KEC Project.

In addition to the proposed buildings, the Proposed Action would also include earthworks and recontouring of the open areas along Columbus Avenue. These large, open areas would be filled to raise the level of the ground with the placement of excavated material. Densely planted landscaping would be installed in these areas to provide visual interest to the Kensico Campus and provide wildlife habitat. Stormwater features would be located in the southeast corner of Columbus Avenue and the relocated Westlake Drive and at the northeast and southeast corners of Columbus Avenue and the former Westlake Drive. These stormwater features would be planted with native grasses, perennials, and shrubs to encourage habitat for other wetland species. A mowed lawn edge would be maintained on the interior side of the perimeter fence to maintain visibility for security purposes. View corridors would be maintained to provide continued views to the public at various points along Columbus Avenue.

Features of the Proposed Action and changes in the visual character from various views of the Kensico Campus are described below. Where renderings depict the proposed view from similar vantage points as the existing photograph locations (see **Figure 4.3-2**), it is noted below.

Figure 4.3-20 depicts the proposed view along Westlake Drive behind Valhalla High School, near the UEC. As illustrated, the relocated Westlake Drive would connect at this point. The existing Westlake Drive would be gated to restrict future public access, with traffic diverted to the relocated Westlake Drive. The relocated Westlake Drive would largely parallel the alignment of the power lines that separate the Kensico Campus from Valhalla High School today and extend to the west and Columbus Avenue. No existing or proposed buildings on the Kensico Campus are visible from this viewpoint similar to current conditions at this location.

The relocated Westlake Drive would be one of the most significant changes in visual appearance (see **Figure 4.3-21**). The wooded area north of the existing Aerator Road would be cleared and the relocated Westlake Drive would be opened. The historic LEC would still be visible from this viewpoint. The entire Kensico Campus would be fenced to provide a secured campus. The proposed landscaping within the perimeter fence on the Kensico Campus would provide visual interest and color during the growing season. Plantings along the relocated Westlake Drive would create a scenic woodland edge to the Kensico Campus that would filter views of the proposed KEC Screen Chamber.

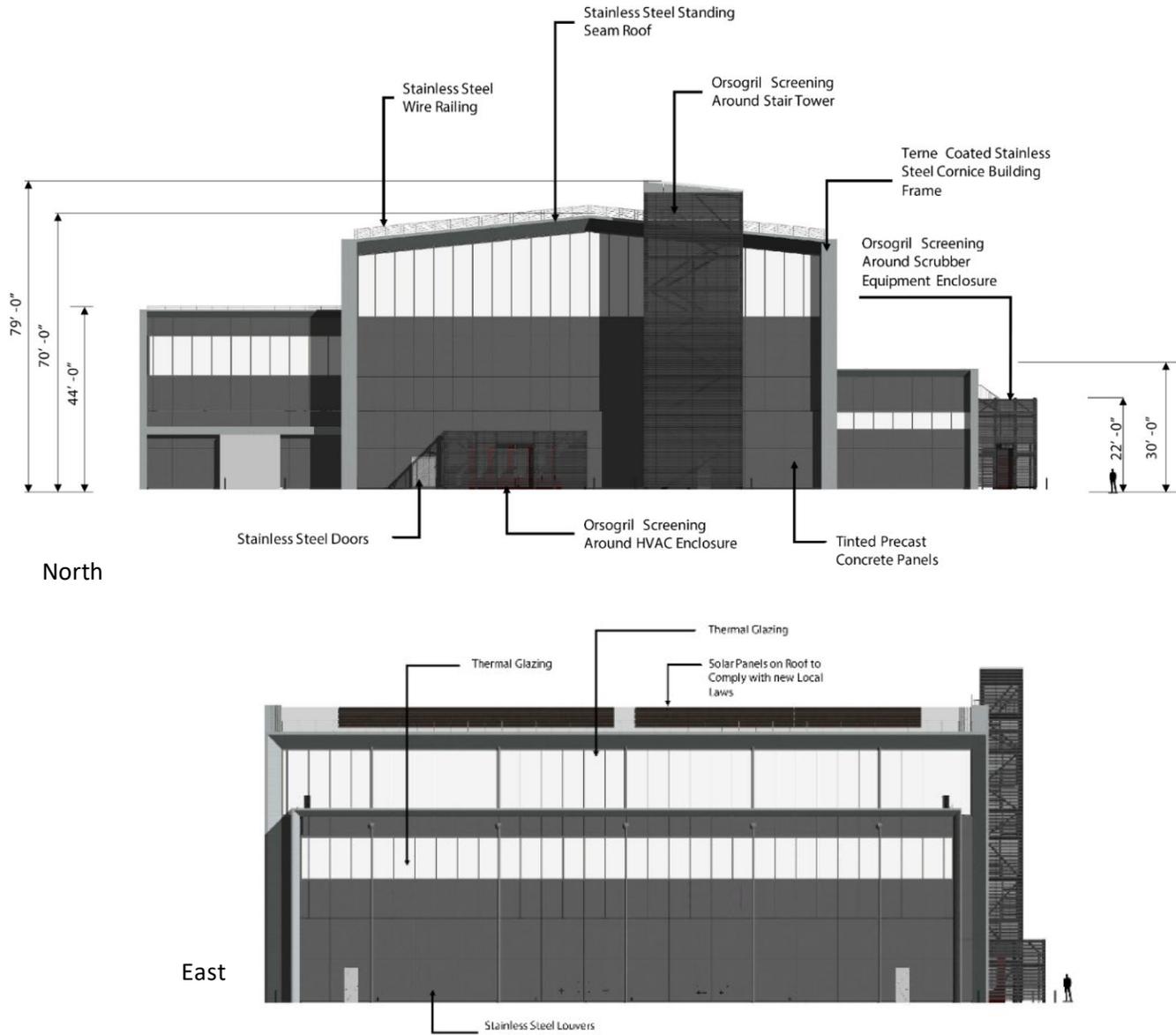


Figure 4.3-17. KEC Screen Chamber – North and East Elevations





Figure 4.3-18. KEC Screen Chamber – Rendering of West Elevation (Looking East)





WEST ELEVATION



EAST ELEVATION

Figure 4.3-19. Proposed Electrical Building - West and East Elevations





Figure 4.3-20. Photograph Location A – Proposed View Looking Southwest from Westlake Drive near the Upper Effluent Chamber





Figure 4.3-21. Photograph Location B – Proposed View Looking East from along Columbus Avenue at the Relocated Westlake Drive



Figure 4.3-22 is also from Columbus Avenue, just south of Valhalla High School, at the intersection with the relocated Westlake Drive. As illustrated, this view is dominated by the relocated Westlake Drive. The LEC is still visible beyond the proposed security fencing. The previous open grassed areas of the former Catskill Aerator would be regraded and landscaped to provide visual interest. The new gated access to Aerator Road is also displayed. The open areas of the former Delaware Aerator and DEL Shaft 18 would no longer be visible from this viewpoint.

Near the intersection of Columbus Avenue and the relocated Westlake Drive, a proposed 30-car public parking lot would also be constructed, as illustrated in **Figure 4.3-23**.

The Proposed Action includes the construction of a police booth and secured entrance to the campus, see **Figure 4.3-24** and **Figure 4.3-25**. These views are dominated by the former Westlake Drive that would now function as a secured access point for the overall Kensico Campus. The open grassed areas of the former Catskill Aerator (left) and Delaware Aerator (right) would be regraded and landscaped to provide visual interest and screening. New stormwater features would be located at the northeast and southeast corner of this intersection. In the distance are the proposed KEC Screen Chamber (left), the Kensico Regional Headquarters (left-center), the proposed electrical building and police booth (center), and the existing fluoride buildings (right). The LEC would no longer be visible from this location. The existing construction trailers would be replaced by other permanent structures (not visible from this location). The forested areas of the Kensico Campus would continue to provide a backdrop. A new security fence would extend north and south along Columbus Avenue.

The view looking northeast at Columbus Avenue and Lakeview Avenue (**Figure 4.3-26**), would change from the open grassed areas of the former Catskill Aerator (left) and Delaware Aerator (right) to include changes in elevation and proposed landscaped areas. These features would provide visual interest and screening of some of the buildings on the campus. The new KEC Screen Chamber would be the most dominant feature from this location, left of the Kensico Regional Headquarters. The Kensico Regional Headquarters would no longer be visible from this location with the proposed police booth blocking views of the structure. The upper portion of the proposed electrical building (right) would be visible over the new proposed fence. The forested areas of the Kensico Campus would continue to provide a backdrop.

Figure 4.3-27 represents the view from Columbus Avenue at Fountain Drive. Similar to other views along Columbus Avenue, the open grassed areas of the former Catskill Aerator (background, left) and Delaware Aerator (foreground, right) would be regraded. Proposed landscaping directly adjacent to Columbus Avenue would include flowering perennials and shrubs to provide visual interest. Proposed trees would be planted on the newly regraded area to provide screening. The proposed KEC Screen Chamber would be visible from this location, right of the existing LEC (left). The upper portion of the proposed DEP police booth would be visible in front of the KEC Screen Chamber. Existing power lines and forested areas of the Kensico Campus would continue to provide a backdrop.



Figure 4.3-22. Photograph Location B – Proposed View Looking Southeast from along Columbus Avenue at the Relocated Westlake Drive





Figure 4.3-23. Proposed View Looking East within the Relocated Westlake Drive Parking Lot





Figure 4.3-24. Photograph Location C – Proposed View Looking East from along Columbus Avenue at New Secured Entrance at Former Westlake Drive





Figure 4.3-25. Photograph Location C – Proposed View Looking Northeast from along Columbus Avenue at New Secured Entrance at Former Westlake Drive





Figure 4.3-26. Photograph Location D – Proposed View Looking Northeast along Columbus Avenue at Lakeview Avenue





Figure 4.3-27. Photograph Location E – Proposed View Looking North/northeast along Columbus Avenue at Fountain Drive



Similar to above, **Figure 4.3-28** is also from Columbus Avenue at Fountain Drive, although this view looks more eastward. The viewpoint is dominated by the proposed grading and landscaping of the former Delaware Aerator. The proposed KEC Screen Chamber (left) would be visible from this location, as well as the existing historical DEL Shaft 18 (left). The upper portion of the proposed police booth is visible in front of the proposed KEC Screen Chamber at left.

The view from West Westlake Drive, northeast of the Valhalla United Methodist Church is shown on **Figure 4.3-29**. This view is dominated by the existing entrance to the Kensico Campus. Visible to the left is the proposed regraded and landscaped area of the former Delaware Aerator. Just above the ground surface, the roofline of the Waterfowl Management Program Building (center) is visible to the left of DEL Shaft 18 (left-center). The existing entrance to DEL Shaft 18 would not be changed, although the perimeter fence would be replaced.

The view from West Westlake Drive at Prospect Avenue is not anticipated to change significantly. While the perimeter fence would be replaced in this area, none of the facilities and site improvements that are part of the Proposed Action are anticipated to be visible from this location. The current view is dominated by the roadside vegetation along West Westlake Drive.

DEL Shaft 18 is visible beyond the vegetation, although during leaf-on seasons would be further screened.

The view of the Kensico Campus from the walkway on the Kensico Dam at Kensico Dam Plaza County Park is also not anticipated to change significantly. The Waterfowl Management Program Building being constructed independent of the proposed KEC Project would be visible in the location that the current temporary trailers/tents are located. The proposed KEC Screen Chamber is not anticipated to be visible from this location. Likewise, the distance of approximately one mile to the Kensico Campus would limit discernible views of some of the details of the buildings and other site elements.

As shown on **Figure 4.3-11**, the existing shoreline stabilization and riprap along the waterline would be extended to the north (right) to the UEC. This proposed riprap would be similar in appearance to the natural rocky shoreline and existing riprap. Although the aesthetic changes along the shoreline area would be permanent and result in some tree clearing, the changes only affect a small area of the reservoir and from the Kensico Dam walkway, would blend into the surroundings, and not detract from the visual character of the area. A buffer of existing trees would remain and would continue to screen a majority of the structures on the Kensico Campus.



Figure 4.3-28. Photograph Location E – Proposed View Looking East/northeast along Columbus Avenue at Fountain Drive



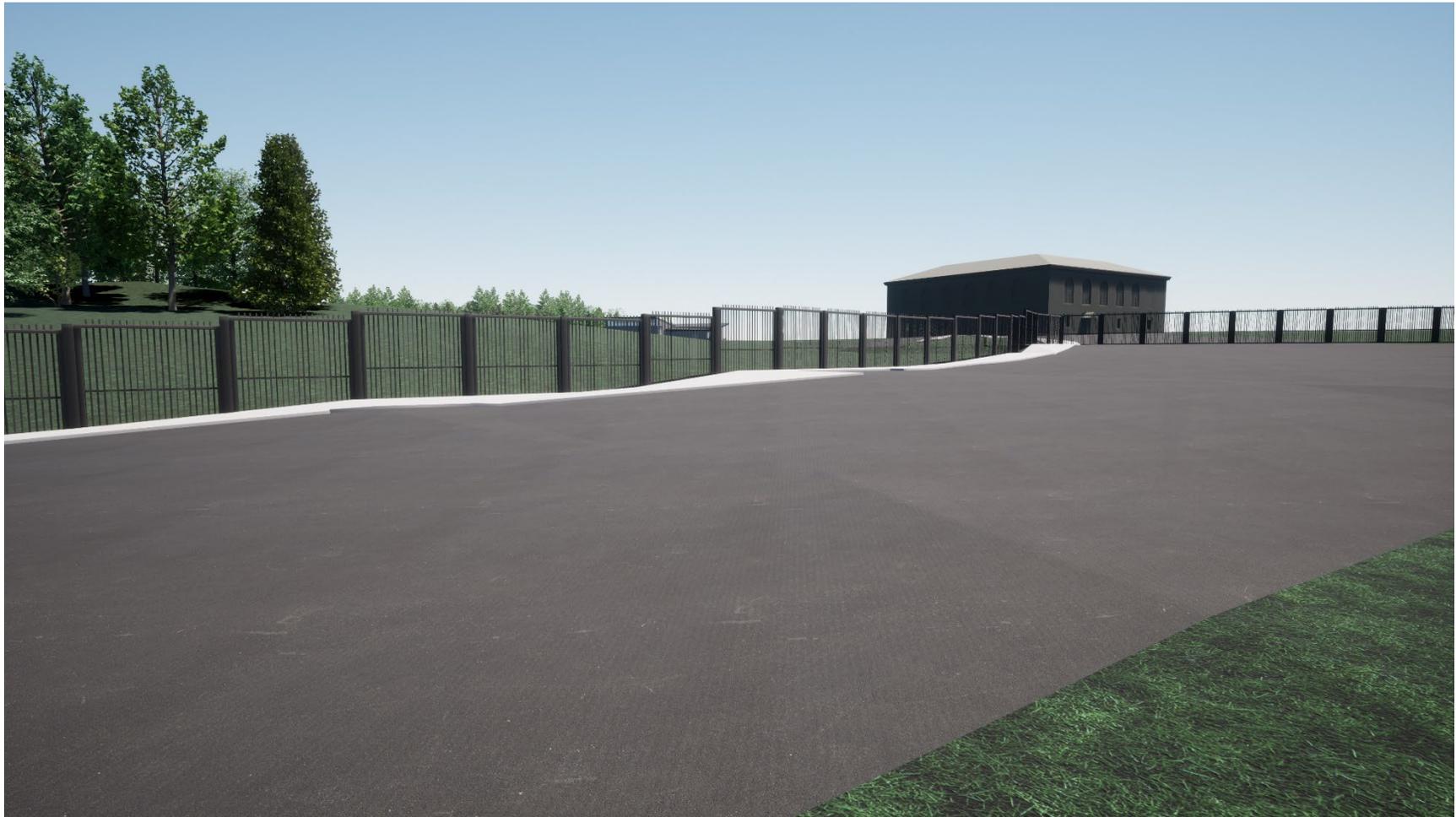


Figure 4.3-29. Photograph Location F – Proposed View Looking Northeast along West Westlake Drive from Valhalla United Methodist Church



As noted in the future without the Proposed Action, DEP would remove the temporary construction trailers and tents on the Kensico Campus. While changes to the Kensico Campus would occur as a result of the Proposed Action, community views of the historical features of the campus would be maintained in view corridors. No significant views of the historic structures on the campus would be eliminated. Large expanses of proposed landscaping would provide varying colors and textures with plants that would change throughout the year and would provide visual interest along Columbus Avenue. Final landscaping plans would be developed in coordination with PDC and the Town of Mount Pleasant. These changes would not cause a diminishment of the public enjoyment of any identified visual resource and would not change the aesthetic character or quality of community.

4.3.5.2 KEC Eastview Site

The operation of the Proposed Action, once construction has been completed, is not anticipated to change the visual appearance of the KEC Eastview Site. The main permanent structure that would be constructed at the KEC Eastview Site is the ECC (see **Figure 4.3-30**). The ECC would be located north of the existing CDUV Facility and is not anticipated to be visible from Grasslands Road due to the CDUV Facility itself. As noted above, the only visual resources in the KEC Eastview Site study area are located south of the CDUV Facility, where the existing building would screen the proposed ECC.

Views of the CDUV Facility would remain as noted in the future without the Proposed Action from the trail and Hammond House once the ECC is operational. Operation of the ECC would not have any significant effects to the enjoyment of the trail, as the ECC would not be visible from the trail. Similarly, the ECC would not have any significant effect on the historical significance of Hammond House.

4.3.6 CONCLUSION

DEP has committed to provide visually appealing elements at both the Kensico Campus and KEC Eastview Site through the use of native landscaping. At the Kensico Campus, a more naturalistic planting scheme would provide visual interest and color during the growing seasons. The Kensico Campus would be regraded to create a topography that, combined with open meadow areas and stands of native trees, would reduce the visual prominence of the KEC Screen Chamber, while framing views of the historic structures and maintaining a clear view corridor for security.

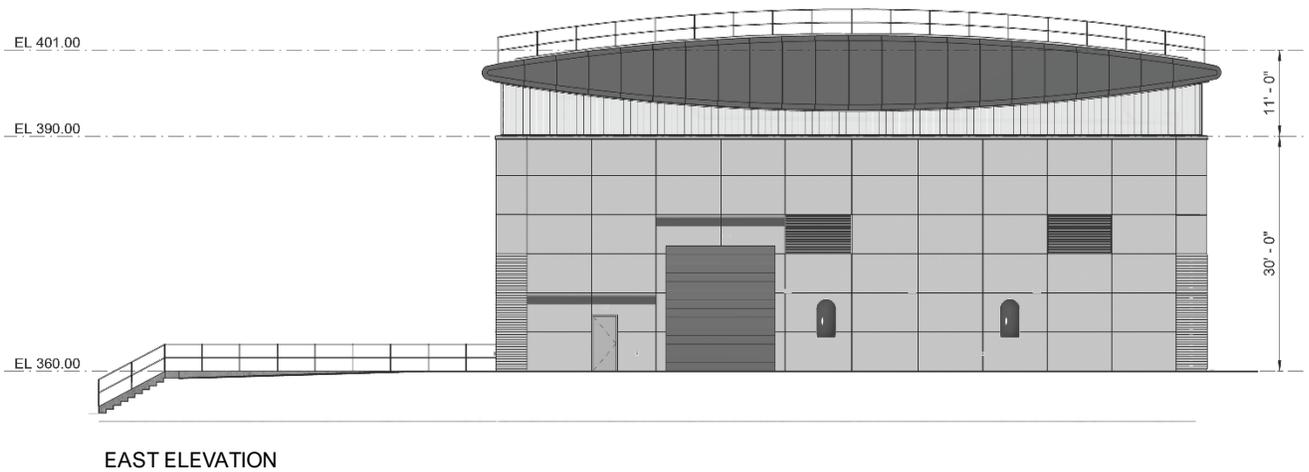
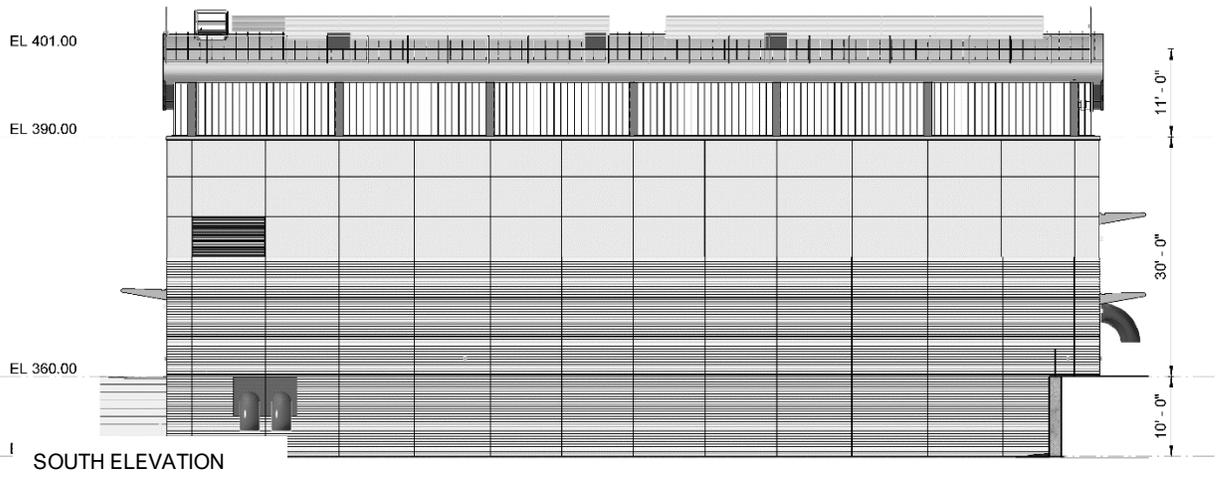


Figure 4.3-30. Eastview Connection Chamber – South and East Elevations



Based upon the analysis of visual resources, including those views of the Kensico Campus from Columbus Avenue identified by the Town of Mount Pleasant, and views of the KEC Eastview Site from Grasslands Road, the Proposed Action would change some views of the Kensico Campus and KEC Eastview Site, predominately at the Kensico Campus, but these are not expected to result in significant adverse effects. The Proposed Action is not anticipated to change views from any of the applicable 15 categories of State aesthetic and visual resources (NYSDEC Program Policy DEP-00-2 /*Assessing and Mitigating Visual and Aesthetic Resources*). In addition, since Columbus Avenue is the only adjacent roadway with a pedestrian sidewalk, the Proposed Action is not anticipated to negatively affect a pedestrian's experience of the area, as noted by the *CEQR Technical Manual*. Similarly, as noted above, no views of the historic structures on the Kensico Campus would be eliminated and community views of the historical features of the campus would be maintained.

The Proposed Action would not cause a diminishment of the public enjoyment of any identified visual resource and, therefore, would not adversely affect the aesthetic character of the community.

4.4 HISTORIC AND CULTURAL RESOURCES

4.4.1 INTRODUCTION

No direct impacts to historic and cultural resources would occur due to the completion of the Proposed Action. Operation of new facilities constructed as part of the Proposed Action would not result in direct effects to existing historic resources at and immediately adjacent to the Kensico Campus, nor direct or indirect impacts to Hammond House located adjacent and south of the KEC Eastview Site. The Proposed Action, however, would result in major changes to visibility of architectural resources at the Kensico Campus, as noted in Section 3.6, "Historic and Cultural Resources," due to the size and public visibility of the Kensico Campus, a NRHP-eligible district.

This section presents the evaluation of direct or indirect visual and contextual effects as a result of the Proposed Action. Direct effects occur due to an impact to a historic resource.

The Proposed Action would not involve any direct impacts. Indirect impacts would occur from: blocking significant public views of a historic resource to convey their historic significance; isolating a resource from its setting or relationship to the street; altering the setting of a resource; introducing incompatible visual, audible, or atmospheric elements to the setting; or introducing shadows over a historic landscape, or an architectural resource with sun-sensitive features that contribute to that resource's significance, such as a church with notable stained glass windows.

4.4.2 KENSICO CAMPUS

As noted in [Chapter 2](#), “Analytical Framework,” the new KEC Screen Chamber building would be approximately 70 feet high. This new structure, however, would not cast new shadows or substantially increase existing shadows on any historic resources; as a result, no further assessment of the effect of shadows on Kensico Campus historic resources is required.

Additional specific changes to the Kensico Campus would occur with the Proposed Action. These would include land manipulation (i.e., change in topographic profile) and changes in tree and shrub cover, particularly along Columbus Avenue, that would alter the historically open-lawn campus from the public-traffic perspective. This land manipulation would not diminish the integrity of any of the characteristics of the historic property that qualify the campus for inclusion in the NRHP (i.e., the property’s location, design, setting, materials, workmanship, feeling, or association), although the recontoured and replanted Kensico Campus would separate some of the NRHP-eligible buildings from certain public perspectives as one travels along Columbus Avenue and West Westlake Drive. The existing expansive lawn, with limited trees along Columbus Avenue and West Westlake Drive that provide the public perspective of the Kensico Campus and its Renaissance Revival structures from both Columbus Avenue to the west and West Westlake Drive to the south would be altered. Expansive, open lawns are no longer considered the better landscaping choice for sustainability and wildlife habitats. DEP is committed to providing a landscaping design that promotes these new environmental goals with native trees, shrubs, and meadow grass mixes. Proposed areas of mowed turf have been kept to a minimum, but are located where needed for site security, maintenance access, and a tidy appearance along the property edge. This change in the campus’ public presentation is considered from outside the campus looking in and are compared to the photographs of existing conditions as noted in Section 4.3, “Urban Design and Visual Resources,” (**Figure 4.3-4** through **Figure 4.3-10**) in the following renderings (**Figure 4.3-21** through **Figure 4.3-29**) to provide an understanding of these changes.

As a result of the Proposed Action, two new buildings would be constructed within the core of the Kensico Campus: the new KEC Screen Chamber building (**Figure 4.3-17** and **Figure 4.3-18**); and the more compact, utilitarian electrical building (**Figure 4.3-19**) to be built on the north and southeast sides of the Kensico Regional Headquarters, respectively. As illustrated in the elevations, both proposed new buildings depart from the classical Renaissance Revival-inspired designed buildings that form the core of the Kensico Campus, as described below.

The proposed KEC Screen Chamber building would be set back from the line of the adjoining and existing LEC and Kensico Regional Headquarters to temper the introduction of a different scale and style of architecture onto the Kensico Campus. To the extent possible, the proposed KEC Screen Chamber would have a depressed profile within a severely graded plot. Based on

consultations with PDC, the current architectural concept has been advanced to complement the existing Renaissance Revival structures on Kensico Campus. The gray concrete panels, along with their dimensions, relate to the human scale, as does the monolithic design of the existing structures. The relationship between the new and the existing would be reflected in the dimensional scale of the façade. The aim is to acknowledge how the new building is being designed in the 21st century and demands a more modern aesthetic, yet also respects the historic character of the existing structures built in the early 20th century. This design approach has received preliminary approval from PDC. The proposed landscaping seeks to maintain sightlines to and “frame” existing historic buildings from certain locations (**Figure 4.3-25** and **Figure 4.3-27**).

The appearance and design of the proposed electrical building at the east side of the Kensico Regional Headquarters would also increase the presence of a more utilitarian aesthetic on the landscape. The electrical building would share the same façade materials and design language as the proposed KEC Screen Chamber: gray precast concrete panels and terne-coated [tin matte] metal cornices. This increase in a contemporary aesthetic would be blended into the existing Kensico Campus aesthetic with appropriate landscaping and/or sympathetic design and finishes (**Figure 4.3-24**).

The security improvements and police booth (**Figure 4.3-24** and **Figure 4.3-25**), as well as the relocation of Westlake Drive and the creation of a new public parking lot on the northeast corner of Columbus Avenue and the relocated Westlake Drive (**Figure 4.3-23**), would not adversely affect the general viewscape from vehicular and/or pedestrian traffic.

The UEC, constructed circa 1910-1918, would potentially require a new roof to address deterioration and existing leaks and other minor exterior improvements. As the damaged roof tiles and leaks from the roof may worsen, the Proposed Action includes the potential replacement of the roof to allow for the greatest life expectancy of the structure. This new roof would be consistent with the historic context and architectural style of the existing UEC roof with the use of Ultra High Performance Concrete tiles, which provide superior performance and longevity while also matching the original color, shape, texture, and size of the existing roof tiles. The footprint of the existing structure would remain largely the same, with exterior improvements including, but not be limited to, masonry repointing, crack repair, and eaves work. The overall appearance of the UEC is not anticipated to change with operation of the Proposed Action. Based upon SHPO’s review, no adverse effects on historic or archaeological resources were found provided that cleaning methods and masonry repointing shall follow the recommended methods and materials within the National Park Service’s *Preservation Brief 1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings*⁴⁵ and *Preservation Brief 2:*

⁴⁵ [Preservation Brief 1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings \(nps.gov\)](https://www.nps.gov/pubs/pb1/)

*Repointing Mortar Joints in Historic Masonry Buildings*⁴⁶. Documentation of the existing roof would be provided with the proposed roof repair details for SHPO's review and approval.

Views of the Kensico Campus would change but the campus-like setting would remain with more limited views of existing historic structures and views of the new structures noted above. The new topography, with added visual interest with landscaping and a perimeter security fence, would continue to provide some views of the NRHP-eligible buildings, although those NRHP-eligible buildings may not be as prominent in the overall viewshed and would be separated by the new, more modern structures. However, no significant views of the historic structures would be eliminated, and the historical features of the NRHP-eligible buildings would be maintained as they exist today. The Proposed Action would also not diminish the integrity of the historical features and characteristics and therefore, these changes would not adversely affect the historic resources on the Kensico Campus.

4.4.3 KEC EASTVIEW SITE

The permanent and above-grade elements of the Proposed Action at the KEC Eastview Site include the new ECC (**Figure 4.3-30**), located on top of the proposed KEC Shaft 2C from the new KEC Tunnel on the northeast side of the existing CDUV Facility. The ECC would be separated from the Hammond House by the Mine Brook corridor which includes an established growth of trees along the stream and the existing CDUV Facility, which would limit direct views of the ECC and would be located approximately 2,000 feet from the ECC. There would be no direct effects on the neighboring historic Hammond House, the only NRHP-listed or NRHP-eligible property within the Grasslands Road viewshed. Likewise, the Hammond House would be located south of the KEC Eastview Site and as a result no visual and contextual effects from Grasslands Road would occur due to the Proposed Action. No project effect to historic resources are therefore anticipated at the KEC Eastview Site.

In summary, no significant adverse direct impacts to architectural resources or districts at either project site are anticipated and as a result, no significant impact due to the Proposed Action would occur.

4.5 NATURAL RESOURCES

As described in Section 1.3, "Detailed Description of Proposed Action," the Proposed Action would include a new, deep rock tunnel between Kensico Reservoir and the CDUV Facility, as well as the use of additional infrastructure and facilities to support the KEC Tunnel. The Proposed Action would create a direct connection from the UEC to the CDUV Facility. The Proposed Action would also increase the intake flow capacity of the UEC from its current design

⁴⁶ [Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings \(nps.gov\)](#)

capacity of approximately 800 mgd to a new capacity of up to 2,645 mgd. The rehabilitation and improvement of the UEC would therefore provide increased resiliency, redundancy, and flexibility for DEP to meet the current and future water demands of the City and its upstate customers, while allowing DEP to provide a reliable and high-quality source of drinking water.

A discussion of potential effects to natural resources associated with the construction of the Proposed Action was presented in Section 3.7, “Natural Resources.” Potential effects due to operation would be limited, however increased flows above the historic UEC design capacity would have the potential to affect natural resources, specifically aquatic resources. During periods of increased intake flows, there would be the potential for fish entrainment or impingement. Entrainment is the unwanted passage of fish through a water intake, while impingement is the physical contact of a fish with such a barrier structure (e.g., screen) due to intake velocities which are too high to allow the fish to escape. A discussion of the proposed operation of the UEC and its potential to affect aquatic resources is therefore presented within this section.

As noted previously, the existing UEC would be rehabilitated and modified to allow direct connection to the CDUV Facility, accommodate future intake flows up to 2,645 mgd, and maintain DEP’s ability to bypass Kensico Reservoir or the CDUV Facility when required. Water depths at and immediately adjacent to the UEC are up to 80 feet and intake flows are generally drawn into the UEC through an existing intake channel within the reservoir bottom before entering the UEC. This flow enters through a series of openings protected by bar racks located along the face of the UEC to limit effects due to larger debris in the reservoir (tree limbs, etc.). The design flow for the existing UEC was approximately 800 mgd. Historically, DEP had jointly utilized DEL Shaft 18 and the UEC to meet the daily and long-term needs of the City and its upstate customers.

The long-term use of the rehabilitated UEC is not anticipated to routinely or frequently operate at its new design capacity, but would instead operate at lower intake flows, similar to historical flows, as supply from Kensico Reservoir would typically rely upon the use of both DEL Shaft 18 and the UEC. DEP operates its system in order to meet water supply demands, while providing a high-quality supply of water. Operation of the water supply system and reservoirs is necessarily dynamic as daily, hourly, and seasonal water supply needs are highly variable. As a result, flows from Kensico Reservoir are actively monitored and managed by DEP on an ongoing basis to meet these changes and therefore vary over time. In order to provide a general context of flows from Kensico Reservoir, current overall daily demand ranges between 1,200 and 1,400 mgd. Current summer peaks (i.e., hourly need), a period when increased water use would be expected, have generally been on the order of 1,600 mgd. Consistent with prior use of DEL Shaft 18 and the UEC before completion of the CDUV Facility, flows from Kensico Reservoir would be split between the two intakes. The exception to these normal flows would be related to future maintenance activities at DEL Shaft 18 or the UEC, adjustments required to meet changes in

demand, and/or instances where maintenance of water supply quality would dictate changes in flows between DEL Shaft 18 and the UEC. As a result, routine flows from the rehabilitated UEC would remain largely below the historic UEC design capacity of 800 mgd which would not represent a net change from previous operations. Potential short-term effects during periods when increased or sole use of the UEC is required, such as during inspection or maintenance of DEL Shaft 18, may occur and could result in an increased risk for impingement or entrainment of fish species during these periods. However, these occurrences would be limited and not reflective of the anticipated future more routine, day to day operations.

A variety of fish species are encountered in Kensico Reservoir. This includes centrarchids (e.g., bass and sunfishes), lake and brown trout, and the more abundant forage species such as alewife and rainbow smelt. The centrarchids are typically shallow water species and routinely associated with structure and shallow bottom habitat. These species would not be expected to occur in deeper and/or open waters of the reservoir. Additionally, the young of the year and juveniles of these species typically seek out shallow, densely vegetated areas for both feeding opportunities and protection from predators. The reservoir areas in immediate proximity to the existing UEC and its intake channel are comprised of open water with depths up to 80 feet and without significant submerged aquatic vegetation. These areas would therefore not be attractive to young of the year fish (i.e., fish spawned in the current year) of most species. A summary of spawning depths for several species known to occur in Kensico Reservoir is presented in **Table 4.5-1**.

Table 4.5-1. Representative Kensico Reservoir Centrarchid Species and Spawning Preferences

Species	Typical Spawning Depths
Largemouth Bass	0.3 to 2 meters (1 to 6.6 feet)
Smallmouth Bass	0.6 to 2.4 meters (2 to 7.9 feet)
Bluegill Sunfish	0.3 to 0.85 meters (1 to 2.8 feet)
Black Crappie	0.2 to 0.6 meters (0.7 to 2 feet)
Yellow Perch	1.5 to 3 meters (5 to 10 feet)
White Perch	0 to 3.7 meters (0 to 12.1 feet)

Open-water species such as brown trout and lake trout are also found in Kensico Reservoir. The NYSDEC currently stocks Kensico Reservoir each fall, with approximately 10,000 stocked in 2021. The brown trout stocked are of a size (>7.5 inches) that would not be subject to impingement. Lake trout were previously stocked, but this was curtailed when it was determined by NYSDEC that there was sufficient natural reproduction in the reservoir. Trout tend to seek out the thermocline (i.e., depth where the water temperature decreases by > 1° C in one meter). Additionally, the colder, denser water can attract and concentrate food items for forage species and in turn attract trout. Thermocline data for Kensico Reservoir from the sample location closest to the Kensico Campus was reviewed. The data set was from the time period of March 2019 to June 2022. The thermocline depth was at or near the reservoir surface from December to

April of each calendar year; and at a depth of three to four meters in the months of May through July. The thermocline depth drops to an average of 16 meters below the surface in the month of August; gradually declining to a depth of 25 meters below the surface in the month of November. Larger salmonids, such as these trout species, may seek out areas within the reservoir with a current to establish feeding stations, such as those that historically occurred in proximity to the UEC, preying on forage fish passing by. Prior studies discussed in Section 3.7, “Natural Resources,” for areas immediately south of the UEC found very limited spawning potential for lake trout in the vicinity of the UEC noting the embeddedness of the rocks and resultant lack of interstices in the substrate for egg deposition. As a result, early life stages of trout would likely not be affected by historic or future UEC intake velocities.

Forage species such as alewife and rainbow smelt also occur within Kensico Reservoir. These species would routinely be expected to occur throughout the reservoir including in the vicinity of the UEC and DEL Shaft 18. These species typically prefer open water or pelagic habitats. Land-locked populations of alewife generally occupy the open waters of lakes and reservoirs such as Kensico Reservoir during most of the year, moving into shallow areas with sand and gravel substrates to spawn primarily during the spring. These fish species would have the greatest potential to be periodically entrained as they are both abundant and schooling fish. Observations of occasional entrainment of these species have been historically noted at existing intakes, but not on an ongoing basis.

The Proposed Action would create a connection of the UEC to the CDUV Facility and allow the use of the UEC as an intake for waters from Kensico Reservoir. While the new and improved UEC would have an intake design capacity of up to 2,645 mgd, flows with the Proposed Action are anticipated to be more consistent with historic UEC flows (i.e., up to the existing design capacity of 800 mgd). As noted, average daily flows are routinely between 1,200 and 1,400 mgd with summer peaks (i.e., hourly) of approximately 1,600 mgd. These flows would be split between the newly improved UEC and DEL Shaft 18, consistent with the historic operations of these two intakes. As a result, it is anticipated that for the foreseeable future, projected UEC intake flows would be comparable to the prior design capacity of the UEC and no change in the effect upon aquatic resources would be expected. However, during periodic inspection or maintenance of DEL Shaft 18, sole use of the UEC would be required which could result in higher intake flows and an increased risk for impingement or entrainment of selected fish species during these periods. These occurrences however would be limited and not reflective of routine, operations.

Centrarchids, such as bass and sunfish species, are typically shallow water species and typically associate with structures and shallow bottom habitat which would generally not be present at the UEC site. These species would also typically not occur in deeper and/or open waters. In addition, the young of the year and juveniles of these species typically seek out shallow, densely vegetated areas for both feeding opportunities and protection from predators. The intake area is open water

with depths up to 80 feet and thus would not be attractive to either adult or young of the year fish of most species.

Open-water species such as brown trout and lake trout found in Kensico Reservoir would also be unlikely to be subject to impingement due to their size and swimming speed. Similarly, as discussed above, habitat conditions at and in the immediate vicinity of the UEC (e.g., depth) would not represent the more typical characteristics for trout habitat. Likewise, very limited spawning potential for lake trout was noted south of the UEC. As a result, the potential effect of periods of increased intake flows above 800 mgd would not be expected to adversely affect lake and brown trout or the early life stages of these species.

Open-water species such as brown trout and lake trout, as well as centrarchids found in Kensico Reservoir would not be adversely affected by periodic intake flows above the current 800 mgd design flow of the UEC. While forage species would have an increased potential for entrainment at increased intake flows, their abundance within the reservoir would not be anticipated to significantly decline or be adversely affected for those periods when intake flows may periodically exceed the current UEC intake design capacity. In summary, the operation of the rehabilitated UEC is not expected to have any significant or long-term adverse effect on either the game fishery or the forage base in Kensico Reservoir.

4.6 WATER RESOURCES

As discussed in Section 3.8, “Water Resources,” construction of the Proposed Action would not result in significant adverse effects to water resources. The Proposed Action would largely result in the construction of new water supply infrastructure that would provide increased resiliency, redundancy, and flexibility for DEP to meet current and future water demands of the City and its upstate customers, while allowing DEP to provide a high quality source of drinking water. Operation of the Proposed Action would not be anticipated to result in significant adverse effects to water resources. The Proposed Action would, however, result in several significant benefits to water resources. This would include a direct connection between the UEC and the CDUV Facility, an increase in the capacity of the UEC, completion of shoreline stabilization to limit water quality effects due to erosion, and the replacement of the existing turbidity curtains within Kensico Reservoir to address runoff from Malcolm Brook.

As discussed in Section 1.3, “Detailed Description of Proposed Action,” a new, deep rock tunnel is proposed between the UEC at Kensico Reservoir and the CDUV Facility at the KEC Eastview Site. The Proposed Action would provide a direct benefit to water resources by creating a direct connection from the UEC to the CDUV Facility and enabling future intake flows of up to 2,645 mgd. The KEC Project would enhance system resiliency and redundancy, preserve the potential for a Catskill Aqueduct bypass of Kensico Reservoir to allow for operational flexibility and water quality management, allow DEP to meet future target capacities for the

CDUV Facility, allow for emergency and planned system outages, and provide compatibility with potential future infrastructure projects. All of these features of the operation of the Proposed Action would be a benefit beyond the existing water supply infrastructure and a positive impact to water resources.

In addition, new shoreline stabilization would be put in place along the eastern shore of the Kensico Campus as part of the Proposed Action. Completion of the shoreline stabilization, in conjunction with previous shoreline stabilization efforts completed by DEP, would provide a stabilized shoreline extending from south of DEL Shaft 18 to the UEC. This would provide increased protection of water quality within the reservoir and more importantly in close proximity to the UEC and DEL Shaft 18 where water from the reservoir is directed to the CDUV Facility and/or the Catskill Aqueduct. As discussed in Section 1.3, “Detailed Description of Proposed Action,” during Superstorm Sandy wind-driven erosion of the western shoreline of the reservoir in proximity to these two water intakes occurred resulting in an increase in episodes of storm-related turbidity that impacted water quality. Completion of the new and previous shoreline stabilization efforts would limit or prevent this erosion, thereby providing a positive benefit for the protection of water resources both within Kensico Reservoir and for the water intakes at DEL Shaft 18 and the UEC and DEP’s ability to manage the quality of its water supply.

Similarly, a new and extended turbidity curtain would be in place east of the UEC at the completion of construction. This new curtain would replace the existing turbidity curtains that are reaching the limit of their useful life. The new turbidity curtain would provide protection for the UEC intake from periodic turbidity events associated with Malcolm Brook. Proximity of the mouth of Malcolm Brook to the UEC in particular has historically presented challenges related to high levels of turbidity that can flow into the reservoir and affect water quality. The new turbidity curtain would have a greater length than the existing turbidity curtains which would further direct these runoff flows into the more open areas of Kensico Reservoir and away from the water intakes associated with the UEC and DEL Shaft 18. Placement and use of the new turbidity curtain would, therefore, provide an improvement in DEP’s ability to protect its intakes from episodes of elevated turbidity that could otherwise affect the quality of DEP’s water supply, and represents an improvement from current conditions.

Operation of the Proposed Action is, therefore, not anticipated to result in any significant adverse effects to water resources but would provide benefits to maintaining the high quality of Kensico Reservoir as a water supply and DEP’s ability to manage this valuable resource while meeting the demands of its in-City and upstate water supply customers.

4.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

4.7.1 INTRODUCTION

While a discussion of the potential impacts associated with construction of the Proposed Action was provided in Section 3.12, “Greenhouse Gas Emissions and Climate Change,” this section discusses the potential effects on GHG emissions once the Proposed Action is completed and operational. As discussed in Section 3.12, since the Proposed Action is a City capital project that requires the preparation of an EIS, a GHG consistency assessment for construction and operation was conducted.

While the Proposed Action would introduce new or rehabilitated buildings or structures, it is not anticipated that these would result in significant additional energy use or fuel consumption, and these would not generate substantive new transportation needs. As a result, a quantitative assessment is not warranted. This section provides a qualitative discussion of GHG emissions associated with the operation of the Proposed Action, as well as a discussion of the potential effects of climate change on the Proposed Action and the potential measures to reduce these effects.

4.7.2 PROJECTED GHG EMISSIONS FROM THE PROPOSED ACTION

The KEC Tunnel would be gravity fed and therefore energy use and GHG emissions during operation would primarily consist of equipment associated with the KEC Screen Chamber, fluoride building, the UEC, HVAC, lighting, new security systems, and routine outlet loads. Operations at the KEC Eastview Site would consume energy primarily through water quality station pumps and analyzers, equipment exercising, HVAC, lighting, security systems, and routine outlet loads associated with the ECC.

Mobile source emissions would be minimal and primarily consist of employee vehicles and delivery trucks. Operation of the new facilities at the Kensico Campus and KEC Eastview Site would not result in significant increases above current employee levels. It is expected that few, if any, new employees would be assigned to the Kensico Campus and KEC Eastview Site as a result of the Proposed Action. Similarly, a significant increase in truck traffic would also not occur as part of operation. Additional truck traffic would be associated with the periodic delivery of disinfection and fluoridation chemicals related to proposed increases in flow capacity. New trucks may be required to address increases in debris removed from intake flows at the new KEC Screen Chamber.

Solar PV arrays would be installed on the KEC Screen Chamber, police booth, and electrical building at the Kensico Campus, and on the ECC at the KEC Eastview Site. The solar installations are expected to generate approximately 225,000 kWh/year at the Kensico Campus,

and approximately 156,000 kWh/year at the KEC Eastview Site, which would offset approximately 58 mTCO_{2e}/year and 45.1 mTCO_{2e}/year, respectively.

In summary, the Proposed Action would provide renewable energy generation capacity for the Kensico Campus and KEC Eastview Site. In addition, there would be no substantial GHG emissions associated with the operation of the Proposed Action.

4.7.2.1 Assessment of Consistency with the GHG Reduction Goals

To determine consistency with the City and State’s overall GHG reduction goals, the Proposed Action was examined against OneNYC’s goals to reduce Citywide GHG emissions, as applicable to the Proposed Action. These goals are as follows:

- Generate clean renewable power through replacement of inefficient power plants with state-of-the-art technology and expanding the use of clean distributed energy.
- Construct new resource- and energy-efficient buildings (including the use of sustainable construction materials and practices) and improve the efficiency of existing buildings.

As discussed above, the Proposed Action includes solar array installations at the Kensico Campus and KEC Eastview Site which would result in offsets in GHG emissions. The solar panel installations also support Citywide environmental objectives such as the OneNYC goal to add 100 MW of solar energy to City-owned municipal rooftops by 2030. In addition, buildings at the Kensico Campus and the KEC Eastview Site, and associated equipment and systems, would be constructed to be energy efficient, including:

- Proposed rated efficiency of HVAC systems from equipment manufacturers which are higher than the minimum efficiencies required as per ASHRAE 90.1 (2013) for climate zone 4A.
- 25 percent reduction of lighting power densities (LPD) as compared to minimum LPD’s per ASHRAE 90.1 (2013) using the Space-by-Space Method.
- Implement heat tracing for pipes to decrease the space heating requirements.
- Extensive use of mechanical ventilation to offset heat gains when outside air conditions are favorable.

Additional energy conservation measures to reduce operations-related GHG emissions, include, but are not limited to temperature reduction, adjustments to temperature setpoints to save energy, heat pump variable refrigerant flow, implementation of solar light poles, and the reduction of redundant fans. The Proposed Action would also be consistent with the resiliency and renewable energy goals of OneNYC, which reaffirms the City’s commitment to the “80x50 Plan,” a goal to reduce GHG emissions by 80 percent by 2050 through investments in renewable energy.

4.7.3 CLIMATE CHANGE

Water resources, such as Kensico Reservoir, are subject to climate change which can cause increased flooding and effects to water quality. As discussed in Section 3.12, “Greenhouse Gas Emissions and Climate Change,” the Proposed Action would include the additional stabilization of Kensico Reservoir’s western shoreline extending from the UEC south and connecting to previous stabilization efforts located north of DEL Shaft 18 completed under a separate contract. These efforts would serve to further protect these shoreline areas and prevent potential effects to reservoir water quality due to significant storm events and the erosion associated with these including those that may be exacerbated by climate change.

The Proposed Action would also involve the replacement of existing turbidity curtains within the reservoir and east of the UEC intake that are in place to address ongoing runoff issues associated with Malcolm Brook. These existing curtains are at the limit of their useful life and would be replaced with a new and longer turbidity curtain that would direct flows from Malcolm Brook further into the open areas of the reservoir and away from the UEC and DEL Shaft 18. This would address current conditions, as well as increased runoff that may occur due to climate change.

Increased precipitation is not anticipated to cause flooding at the Kensico Campus and KEC Eastview Site due to stormwater management controls, including the conversion of sediment basins to detention and bioretention basins at the KEC Eastview Site, the steep topography leading down to Kensico Reservoir, and the Kensico Reservoir levels being primarily controlled by aqueduct inflows and the fixed elevation of the Kensico Dam. In order to address the potential effects of changes in stormwater flows associated with the construction and operation of the Proposed Action, a SWPPP was prepared based on the NYSDEC Stormwater Design Manual, DEP Watershed regulations, and the Town of Mount Pleasant Code requirements for land development activities and stormwater volume and flow rate calculations. Projected storm events from the Climate Resiliency Design Guidelines for NYC and rainfall intensities from Cornell University Extreme Precipitation Tables were used in stormwater calculations and to design the proposed drainage system for the Kensico Campus. The Kensico Campus drainage system has been designed to accommodate rainwater from the 25-year storm event, and the detention systems were designed for the 100-year storm event based on local Town of Mount Pleasant codes. The Proposed Action would therefore not present a significant increase in the potential for flooding associated with stormwater from the Kensico Campus and the KEC Eastview Site.

Upon operation, the KEC Screen Chamber would be considered a critical facility. In the event of a power failure, all electrical equipment and operational machinery dependent on power would be at risk. Therefore, two diesel engine-driven standby generators were designed to provide a backup power source for the KEC Screen Chamber in the event of a utility power failure. The

generators would be located above the design flood elevation and would be classified as standby and able to run 250 hours/year maximum. In addition, the electrical supply at the Kensico Campus was designed to be supplied by two feeders to assure power redundancy.

Increases in the number of heat waves, days above 90°F, and annual average temperature are also projected to rise in the future. Increasing temperatures would increase HVAC loads to protect personnel and equipment from overheating, but otherwise are not expected to directly impact operation of the Proposed Action. However, there is the potential for possible grid failures due to increased temperatures. In order to reduce this risk, measures have been integrated into the design, including selecting architectural materials to avoid heat trapping facades for the KEC Screen Chamber, active and passive cooling, and redundant power supply along with a backup generator for all electrical loads. Temperature-control protections for critical equipment associated with the UEC and ECC, including specific temperature and humidity ratings that protect critical equipment, will further reduce any potential effect of increasing temperatures.

These measures, in addition to designing critical buildings and infrastructure to lie entirely above the design flood elevation, would provide operational resiliency during and after flood events and/or power outages. The design and construction of the Proposed Action would minimize flood hazards and losses.

Finally, completion of the new deep rock tunnel and improvements to the UEC would increase DEP's flexibility to manage water quality within the reservoir and maintain DEP's ability to bypass Kensico Reservoir or the CDUV Facility when required. The Proposed Action would, therefore, provide DEP with increased flexibility to maintain a high-quality supply of water including during those periods when more severe storm events, as an example, may result in increases in turbidity from the Catskill System that has occurred in the past during significant rainfall events or tropical storms.

4.8 ENERGY

As discussed in Section 3.16, "Energy," construction of the Proposed Action would not result in significant adverse effects related to energy demand. Operation of the Proposed Action, however, would result in additional energy needs, primarily consisting of an increase in electrical loads beyond existing service at the Kensico Campus and KEC Eastview Site. This section discusses the potential effects on energy sources and demand, the use of renewable energy, and energy conservation measures once construction of the Proposed Action is completed and the proposed facilities are operational in accordance with 6 NYCRR 617.9(b)(5)(e) and the *CEQR Technical Manual*. As discussed in Section 3.16, "Energy," Con Edison is the current provider of electrical and natural gas service to the Kensico Campus and the KEC Eastview Site, as well as the surrounding area.

As discussed in Section 1.3, “Detailed Description of Proposed Action,” the KEC Project would involve the construction and operation of new water conveyance infrastructure that would connect Kensico Reservoir and the UEC to the CDUV Facility at the KEC Eastview Site. A significant portion of this infrastructure would involve gravity flow without the need for significant new pumping of large volumes of reservoir water. As a result, the overall increase in energy use during operation of the Proposed Action is anticipated to be minimal. Energy use associated with the operation of the Proposed Action at the Kensico Campus would primarily consist of pumps, traveling screens, and equipment associated with the KEC Screen Chamber, Fluoride Building, and UEC, as well as HVAC, lighting, new security systems, and receptacle loads. Process loads, which include all the energy consumed in the water supply processes not related to maintaining HVAC, comfort, and amenities for on-site employees, would represent between 70 to 80 percent of the total project energy consumption at the Kensico Campus during operation of the Proposed Action.

The KEC Screen Chamber would include pumping operations, traveling screens, chemical addition facilities, and HVAC needs. In addition, a new police booth would be built on the Kensico Campus to manage on-site security systems and provide controlled access to the Kensico Campus and would be occupied 24 hours a day, seven days a week. The new police booth would consume energy for HVAC, lighting, and various miscellaneous/plug loads. A new electrical building that would consolidate all electric service to the Kensico Campus, both existing and KEC Project needs, would be operated and would house equipment for electrical distribution across the entire Kensico Campus. Equipment within the building would operate 24 hours a day, seven days a week and would require HVAC. The UEC non-process loads would be replaced with more energy efficient equipment. Emergency power for the UEC and other on-site operations would be provided via two emergency generators at the Kensico Campus electrical building.

As part of the Proposed Action, DEP would consolidate the needs of the Proposed Action and six existing electrical services currently provided to the Kensico Campus into one high tension service with two 13.2 kilovolt (kV) feeders. The consolidated service is currently estimated to require a five megavolt-amp (MVA) service, which includes the load needed for construction activities, as well as the new and/or improved buildings and operations at the Kensico Campus proposed as part of the KEC Project. New service would ultimately be routed through the new dedicated electrical building.

At the KEC Eastview Site, energy consumption within the ECC would primarily include water quality station pumps and analyzers, equipment exercising, HVAC, lighting, security systems and receptacle loads.

No additional electrical service would be necessary for operation of the Proposed Action at the KEC Eastview Site as the current service is sufficient for the future operations. Based upon

outreach with Con Edison, the electrical grid would be able to accommodate any increase in energy usage during operation of the Proposed Action.

As part of the Proposed Action, solar PV arrays would be installed on the KEC Screen Chamber, police booth and electrical building at the Kensico Campus, and on the ECC at the KEC Eastview Site. The solar installations are expected to generate approximately 225,000 kWh/year at the Kensico Campus and 150,000 kWh/year at the KEC Eastview Site. This energy generation would support and/or supplement the energy needs for the Proposed Action.

In addition to new electrical load needs due to the Proposed Action, DEP and the City of New York have sustainability goals that must be considered as part of proposed activities such as the KEC Project. As a result, DEP, to the extent possible, has evaluated energy conservation, efficiency, and reuse opportunities as part of the overall Proposal Action and its operation. Opportunities to reduce energy use include, but are not limited to:

- Proposed rated efficiency of HVAC systems from equipment manufacturers which are higher than the minimum efficiencies required per ASHRAE 90.1 (2013) for climate zone 4A.
- 25 percent reduction of lighting power densities (LPD) as compared to minimum LPD's per ASHRAE 90.1 (2013) using the Space-by-Space method.
- Implement heat tracing for pipes to decrease the space heating requirements.
- Extensive use of mechanical ventilation to offset heat gains when outside air conditions are favorable.
- Solar panel installation on the roofs of the KEC Screen Chamber, police booth, and electrical building at the Kensico Campus, and on the ECC at the KEC Eastview Site.

Additional conservation measures that may also be incorporated to operation of the Proposed Action include temperature reductions, adjustments to temperature setpoints to save energy, heat pump variable refrigerant flows, exhaust air energy recovery, and reduction of redundant fans.

In summary, operation of the Proposed Action would not result in any significant adverse effect to existing or future energy demands. The required needs for future operations can be accommodated by Con Edison with no adverse effect to the existing electrical or gas infrastructure system.

4.9 NEIGHBORHOOD CHARACTER

As noted in Section 3.17, “Neighborhood Character,” the character of a neighborhood is a composite of elements that give a neighborhood its identity, including land use, zoning, and public policy; socioeconomic conditions; open space and recreation; historic and cultural resources; urban design and visual resources; transportation; and noise. Detailed analyses were completed for several of these technical areas for operation of the Proposed Action (land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; and urban design and visual resources) and as discussed earlier in [Chapter 4](#), “Potential Impacts from Operation of Proposed Action.” Operation of the Proposed Action is not anticipated to result in significant adverse impacts to these areas individually.

A discussion of the defining features of the existing neighborhood character in proximity to the Kensico Campus and KEC Eastview Site was previously provided in Section 3.17, “Neighborhood Character.” This section considers the potential effects from the operation of the Proposed Action and determines whether any potential changes to neighborhood character would be considered significant and adverse.

Operation of the Proposed Action would not generate significant adverse effects to land use, zoning, and public policy; socioeconomic conditions; open space and recreation; transportation; and noise. As described in Section 4.3, “Urban Design and Visual Resources,” the Proposed Action would change some views of the Kensico Campus and KEC Eastview Site, predominately at the Kensico Campus, but these are not expected to result in significant adverse effects. Similarly, as described in Section 4.4, “Historic and Cultural Resources,” no significant adverse direct effects to architectural resources or districts at either project site are anticipated, and as a result, no significant effect due to the Proposed Action would occur. Due to the nature and operation of the new and improved facilities within the Kensico Campus and KEC Eastview Site, the combination of these changes are not anticipated to result in significant effects.

4.10 PUBLIC HEALTH

The City of New York has a fundamental obligation to provide a reliable potable water supply that meets all public health and regulatory requirements as mandated under the federal Safe Drinking Water Act and NYSDOH requirements.

On behalf of the City, DEP is responsible for ensuring the safe and reliable transmission of drinking water from the City’s watersheds to consumers. As discussed in this ~~Draft~~ Final EIS, the operation of the Proposed Action would help ensure that this goal and obligation are met.

Public Health involves the activities that society undertakes to protect and improve the health and well-being of the population. The *CEQR Technical Manual* defines as its goal with respect to public health “to determine whether adverse impacts on public health may occur as a result of

a proposed project, and, if so, to identify measures to mitigate such effects.” The *CEQR Technical Manual* indicates that for most proposed projects, a public health analysis is not necessary. A public health analysis is warranted if a proposed project would result in a significant unmitigated adverse impact to air quality, water supply (quantity or quality), hazardous materials, and/or noise.

No significant unmitigable impacts to air quality, water supply, hazardous materials, or noise are anticipated as part of the operation of the Proposed Action. Therefore, an assessment of the potential for the operation of the Proposed Action to result in significant adverse impacts to overall public health conditions is not warranted. Implementation of the Proposed Action would, however, provide DEP additional flexibility with regard to supply capacity, decrease the risk of potential supply disruption, and allow operating flexibility needed for system maintenance and water quality management, thus contributing to its long-term sustainability.

The KEC Project would not result in significant adverse impacts to public health but would instead provide additional benefits by increasing DEP’s ability to provide a high-quality drinking water supply, provide added flexibility to manage water quality, and meet ongoing and future supply needs.