

**Environmental Assessment
Bay Park Conveyance Project**

**Appendix B
Tables**

Table 5.2-1
Representative Monitored Ambient Air Quality Data

Pollutant	Monitoring Station Name/Location	Units	Averaging Period	Concentration	NAAQS
CO	Queens College 2, Queens	ppm	1-hour	1.95	35
CO	Queens College 2, Queens	ppm	8-hour	1.30	9
SO ₂	Eisenhower Park, Nassau Co.	ppb	1-hour ¹	6.5	75
SO ₂	Eisenhower Park, Nassau Co.	ppb	3-hour ²	---	500
PM ₁₀	Queens College 2, Queens	µg/m ³	24-hour	40	150
PM _{2.5}	Eisenhower Park, Nassau Co.	µg/m ³	24-hour ³	15.8	35
PM _{2.5}	Eisenhower Park, Nassau Co.	µg/m ³	Annual	6.4	12
NO ₂	Queens College 2, Queens	ppb	1-hour ⁴	56.2	100
NO ₂	Queens College 2, Queens	ppb	Annual	14.44	53
Lead (pb)	IS 52, New York	µg/m ³	3-month	0.0033	0.15
Ozone (O ₃)	Babylon, Suffolk Co	ppm	8-hour	0.074	0.070

Notes:

1. The 1-hour value is based on a three-year average (2016-2018) of the 99th percentile of daily maximum 1-hour average concentrations. USEPA replaced the 24-hour and the annual standards with the 1-hour standard.
2. The 3-hour value is based on the maximum 3-hour average concentration in 2011-2012, the latest years of reported 3-hour concentrations. This data was not presented within the New York State Ambient Air Quality Report.
3. The 24-hour value is based on a three-year average (2016-2018) of the 98th percentile of 24-hour average concentrations.
4. The 1-hour value is based on a three-year average (2016-2018) of the 98th percentile of daily maximum 1-hour average concentrations.

Source: NYSDEC, New York State Ambient Air Quality Report (2014-2018).

Table 5.2-2
Emissions from Construction Activities (ton/yr)

Year	PM_{2.5}	PM₁₀	NO_x	VOC	CO	SO₂
<i>De Minimis Criteria</i>	100	100	50	50	100	100
2021	0.1	0.1	1.4	0.1	2.1	<0.1
2022	1.0	1.6	22.0	1.9	31.7	0.1
2023	0.8	1.2	17.2	1.5	26.5	0.1
2024	<0.1	<0.1	0.4	<0.1	0.9	<0.1

Note: Emissions presented in **bold** represent the highest annual emissions.

Table 5.2-3

Measures to Reduce the Effects of Construction Activities on Air Quality

Mitigation Measure	Description
Fuel Type	Exclusive use of Ultra-Low-Sulfur Diesel (ULSD) for all diesel engines used during construction. As of 2015, the diesel fuel produced by all large refiners, small refiners, and importers must be ULSD fuel where levels are limited to a maximum of 15 parts per million.
Engine Control Technology	Utilization of the best available technology for reducing diesel particulate matter (DPM) emissions for all non-road diesel engines with a power rating of 50 horsepower (hp) or greater and controlled truck fleets (i.e., truck fleets under long-term contract with the project). This includes diesel particulate filters (DPFs), which have been proven to have the highest reduction capability.
Engine Emission Technology	Utilization of newer equipment that meets USEPA's emissions standards. USEPA's Tier 1 through 4 standards for non-road diesel engines regulate the emission of criteria pollutants from new engines, including PM, CO, NO _x , and hydrocarbons.
Fugitive Dust Controls	Use of appropriate protection techniques when conducting cutting, grinding, (or similar) to minimize impacts.
Fugitive Dust Controls	<p>Implementation of a dust control plan that includes proactive measures to prevent discharge of dust into the atmosphere. Possible measures include:</p> <ul style="list-style-type: none"> • Equipping trucks that are hauling loose material with tight-fitting tailgates and having their loads securely covered prior to leaving the Project Site • The use of water sprays for demolition, excavation, and transfer of soils to ensure that materials would be dampened • Application of products and materials including vegetative cover, mulch, and spray adhesives on soil surfaces to prevent airborne migration of soil particles (construction areas not subject to vehicle traffic such as stockpiles) • Application of products and materials including water sprinkling, polymer additives, barriers, windbreaks, and wheel washing (construction areas subject to vehicle traffic such as trucks)
Equipment Location	<p>Protect sensitive receptors including hospitals, schools, daycare facilities, building fresh air or ventilation intakes, elderly housing, and convalescent facilities from impacts of diesel exhaust fumes by ensuring engines are located away from building air conditioners and windows.</p> <p>Minimize exposure of sensitive receptors in close proximity (e.g., within 50 feet) to diesel exhaust, in terms of both concentration and time.</p>
Engine Idle Restriction	Idling time for diesel powered equipment limited to five consecutive minutes for delivery and dump trucks and all other diesel-powered equipment, with minimal exceptions.
Diesel Fuel Reduction	Use of electrically powered equipment over diesel-powered and gasoline-powered versions of that equipment to the extent practicable.
Diesel Fuel Reduction	Use of solar-powered digital construction signs when reasonable, including arrow panels and portable variable message signs.

Table 5.7-1

Ecological Communities Observed Along the Footprint of the Proposed Action

Ecological Community	Description	Locations Observed
Paved road/path	Roadways, parking lots, and other paved areas. Vegetation is sparse within these paved areas and is predominantly disturbance-tolerant herbaceous species including crabgrass and common mugwort.	Bay Park Shafts 1, 4, and 6, Cedar Creek Shaft 1, and their respective construction staging areas
Mowed lawn	Manicured public parks, grassy areas adjacent to roadways, and the maintained grounds within the Bay Park STP and Cedar Creek WPCP properties. Dominant vegetation at the project sites include herbaceous species common to lawns such as crabgrass, Kentucky bluegrass, red clover, white clover, common dandelion, English plantain, and common plantain.	Bay Park Shafts 2, 5, and 8, Cedar Creek Shafts 2 and 3, and their respective construction staging areas; Bay Park STP effluent diversion pump station; Cedar Creek standpipe receiving tank; and Sunrise Highway work areas
Junkyard	Scrap metal and bare earth with some disturbance-tolerant species along the perimeter. Dominant vegetation at the project site includes black locust and eastern cottonwood	Bay Park Shaft 3 and its construction staging area
Successional southern hardwoods	Forested habitats containing many non-native and invasive species adjacent to developed areas. Dominant vegetation at the project sites include black cherry, red oak, and black locust in the canopy, and Japanese honeysuckle and multiflora rose in the understory.	Bay Park Shafts 7 and 9, Cedar Creek Shafts 4, 5, and 6, , and their respective construction staging areas; and Sunrise Highway work areas
Urban vacant lot	Largely covered by bare earth with disturbance-tolerant species present. Dominant vegetation at the project sites include common mugwort, Japanese knotweed, black locust, and common reed.	Bay Park Shaft 7 and its construction staging area; and Sunrise Highway work areas

Sources: Edinger et al. 2014

Table 5.7-2

Plant Species Observed Along the Footprint of the Proposed Action

Common Name	Scientific Name	Stratum
American beech	<i>Fagus grandifolia</i>	Tree
American elm	<i>Ulmus americana</i>	Tree
American holly	<i>Ilex opaca</i>	Tree
Arrowwood viburnum	<i>Viburnum dentatum</i>	Shrub
Asiatic bittersweet	<i>Celastrus orbiculatus</i>	Vine
Asiatic dayflower	<i>Commelina communis</i>	Herb
Autumn olive	<i>Elaeagnus umbellata</i>	Shrub
Bald cypress	<i>Taxodium distichum</i>	Tree
Beach clotbur	<i>Xanthium echinatum</i>	Herb
Black cherry	<i>Prunus serotina</i>	Tree
Black locust	<i>Robinia pseudoacacia</i>	Tree
Black nightshade	<i>Solanum nigrum</i>	Herb
Black walnut	<i>Juglans nigra</i>	Tree
Blackgum	<i>Nyssa sylvatica</i>	Tree
Box elder	<i>Acer negundo</i>	Tree
Burning bush	<i>Euonymus alatus</i>	Shrub
Callery pear	<i>Pyrus calleryana</i>	Tree
Chicory	<i>Cichorium intybus</i>	Herb
Common blackberry	<i>Rubus allegheniensis</i>	Shrub
Common dandelion	<i>Taraxacum officinale</i>	Herb
Common evening primrose	<i>Oenothera biennis</i>	Herb
Common greenbrier	<i>Smilax rotundifolia</i>	Herb
Common milkweed	<i>Asclepias syriaca</i>	Herb
Common mugwort	<i>Artemisia vulgaris</i>	Herb
Common plantain	<i>Plantago major</i>	Herb
Common reed	<i>Phragmites australis</i>	Herb
Crabapple	<i>Malus sp.</i>	Tree
Crabgrass	<i>Digitaria sanguinalis</i>	Herb
Curly dock	<i>Rumex crispus</i>	Herb
Daisy fleabane	<i>Erigeron annuus</i>	Herb
Eastern cottonwood	<i>Populus deltoides</i>	Tree
Eastern red cedar	<i>Juniperus virginiana</i>	Shrub
Eastern white pine	<i>Pinus strobus</i>	Tree
English ivy	<i>Hedera helix</i>	Herb
English plantain	<i>Plantago lanceolata</i>	Herb
Forsythia	<i>Forsythia sp.</i>	Shrub
Hawthorn	<i>Crataegus sp.</i>	Shrub
Hedge bindweed	<i>Calystegia sepium</i>	Herb
Japanese honeysuckle	<i>Lonicera japonica</i>	Herb
Japanese knotweed	<i>Reynoutria japonica</i>	Herb
Kentucky bluegrass	<i>Poa pratensis</i>	Herb
Kwanzan cherry	<i>Prunus serrulata</i>	Tree
Lamb's quarters	<i>Chenopodium album</i>	Herb
Little leaf linden	<i>Tilia cordata</i>	Tree
London planetree	<i>Platanus acerifolia</i>	Tree
Marsh elder	<i>Iva frutescens</i>	Shrub
Multiflora rose	<i>Rosa multiflora</i>	Shrub
Norway maple	<i>Acer platanoides</i>	Tree

Table 5.7-2 (continued)

Plant Species Observed Along the Footprint of the Proposed Action

Common Name	Scientific Name	Stratum
Pin oak	<i>Quercus palustris</i>	Tree
Poison ivy	<i>Toxicodendron radicans</i>	Vine
Pokeweed	<i>Phytolacca americana</i>	Herb
Porcelainberry	<i>Ampelopsis brevipedunculata</i>	Vine
Prickly lettuce	<i>Lactuca serriola</i>	Herb
Queen Anne's lace	<i>Daucus carota</i>	Herb
Red clover	<i>Trifolium pratense</i>	Herb
Red maple	<i>Acer rubrum</i>	Tree
Red oak	<i>Quercus rubra</i>	Tree
Sassafras	<i>Sassafras albidum</i>	Tree
Seaside goldenrod	<i>Solidago sempervirens</i>	Herb
Sedge	<i>Carex sp.</i>	Herb
Setaria	<i>Setaria sp.</i>	Herb
Siberian elm	<i>Ulmus pumila</i>	Tree
Smartweed	<i>Persicaria sp.</i>	Herb
Sweet pepperbush	<i>Clethra alnifolia</i>	Shrub
Sweetgum	<i>Liquidambar styraciflua</i>	Tree
Sycamore maple	<i>Acer pseudoplatanus</i>	Tree
Tree of heaven	<i>Ailanthus altissima</i>	Tree
Virginia creeper	<i>Parthenocissus quinquefolia</i>	Vine
Virgin's bower	<i>Clematis virginiana</i>	Herb
White ash	<i>Fraxinus americana</i>	Tree
White clover	<i>Trifolium repens</i>	Herb
White mulberry	<i>Morus alba</i>	Tree
White oak	<i>Quercus alba</i>	Tree
White sweetclover	<i>Melilotus albus</i>	Herb
Wild cucumber	<i>Cucumis anguria</i>	Herb
Winged sumac	<i>Rhus copallinum</i>	Shrub
Yellow sweet clover	<i>Melilotus officinalis</i>	Herb

Table 5.7-3
Temporary and Permanent Disturbance from the Proposed Action

Ecological Community	Locations Observed	Temporary Disturbance (acres)	Permanent Disturbance (acres)
Paved road/path	-Bay Park Shafts 1, 4, 6, and their respective construction staging areas -Cedar Creek Shaft 1 and its construction staging area	2.6	0.1
Mowed lawn	-Bay Park Shafts 2, 5, 8, and their respective construction staging areas -Cedar Creek Shafts 2 and 3 and their respective construction staging areas -Bay Park STP effluent diversion pump station -Cedar Creek standpipe receiving tank -Sunrise Highway work areas	5.5	0.5
Junkyard	-Bay Park Shaft 3 and its construction staging area	0.3	0.0
Successional southern hardwoods	-Bay Park Shafts 7 and 9 and their respective construction staging areas -Cedar Creek Shafts 4, 5, 6, and their respective construction staging areas -Sunrise Highway work areas	2.5	0.2
Urban vacant lot	-Bay Park Shaft 7 and its construction staging area -Sunrise Highway work areas	0.5	0.0

Table 5.8-1

Bird Species Documented in the Vicinity of the Proposed Action

Common name	Scientific name
American Black Duck	<i>Anas rubripes</i>
American Crow*	<i>Corvus brachyrhynchos</i>
American Goldfinch*	<i>Spinus tristis</i>
American Oystercatcher	<i>Haematopus palliatus</i>
Baltimore Oriole*	<i>Icterus galbula</i>
Bank Swallow	<i>Riparia riparia</i>
Barn Owl*	<i>Tyto alba</i>
Barn Swallow*	<i>Hirundo rustica</i>
Belted Kingfisher	<i>Megasceryle alcyon</i>
Black Skimmer	<i>Rynchops niger</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Black-capped Chickadee*	<i>Poecile atricapillus</i>
Blue Jay*	<i>Cyanocitta cristata</i>
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>
Boat-tailed Grackle	<i>Quiscalus major</i>
Brown Thrasher	<i>Toxostoma rufum</i>
Brown-headed Cowbird*	<i>Molothrus ater</i>
Canada Goose*	<i>Branta canadensis</i>
Carolina Wren*	<i>Thryothorus ludovicianus</i>
Cedar Waxwing*	<i>Bombycilla cedrorum</i>
Chimney Swift*	<i>Chaetura pelagica</i>
Chipping Sparrow*	<i>Spizella passerina</i>
Clapper Rail	<i>Rallus longirostris</i>
Common Grackle	<i>Quiscalus quiscula</i>
Common Tern	<i>Sterna hirundo</i>
Common Yellowthroat*	<i>Geothlypis trichas</i>
Downy Woodpecker*	<i>Picoides pubescens</i>
Eastern Kingbird*	<i>Tyrannus tyrannus</i>
Eastern Towhee*	<i>Pipilo erythrophthalmus</i>
Eastern Wood-Pewee*	<i>Contopus virens</i>
European Starling*	<i>Sturnus vulgaris</i>
Fish Crow*	<i>Corvus ossifragus</i>
Forster's Tern	<i>Sterna forsteri</i>
Gray Catbird*	<i>Dumetella carolinensis</i>
Great Crested Flycatcher*	<i>Myiarchus crinitus</i>
Green Heron	<i>Butorides virescens</i>
Hairy Woodpecker*	<i>Picoides villosus</i>
House Finch*	<i>Carpodacus mexicanus</i>
House Sparrow*	<i>Passer domesticus</i>
House Wren*	<i>Troglodytes aedon</i>
Killdeer*	<i>Charadrius vociferus</i>
Mallard	<i>Anas platyrhynchos</i>
Mourning Dove*	<i>Zenaida macroura</i>
Mute Swan	<i>Cygnus olor</i>
Northern Cardinal*	<i>Cardinalis cardinalis</i>
Northern Flicker*	<i>Colaptes auratus</i>
Northern Harrier	<i>Circus cyaneus</i>
Northern Mockingbird*	<i>Mimus polyglottos</i>
Northern Rough-winged Swallow*	<i>Stelgidopteryx serripennis</i>
Orchard Oriole	<i>Icterus spurius</i>
Osprey	<i>Pandion haliaetus</i>
Purple Martin*	<i>Progne subis</i>

Table 5.8-1 (continued)
Bird Species Documented in the Vicinity of the Proposed Action

Common name	Scientific name
Red-bellied Woodpecker*	<i>Melanerpes carolinus</i>
Red-eyed Vireo*	<i>Vireo olivaceus</i>
Red-winged Blackbird*	<i>Agelaius phoeniceus</i>
Rock Pigeon*	<i>Columba livia</i>
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Song Sparrow*	<i>Melospiza melodia</i>
Spotted Sandpiper	<i>Actitis macularia</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
Tree Swallow*	<i>Tachycineta bicolor</i>
Tufted Titmouse*	<i>Baeolophus bicolor</i>
Warbling Vireo	<i>Vireo gilvus</i>
White-breasted Nuthatch*	<i>Sitta carolinensis</i>
White-eyed Vireo	<i>Vireo griseus</i>
Willet	<i>Tringa semipalmata</i>
Willow Flycatcher	<i>Empidonax traillii</i>
Wood Duck	<i>Aix sponsa</i>
Wood Thrush*	<i>Hylocichla mustelina</i>
Yellow Warbler*	<i>Dendroica petechia</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Yellow-crowned Night-Heron	<i>Nyctanassa violacea</i>

Notes: * indicates the subset of species that are considered to have the potential to nest within the Bay Park STP, Cedar Creek WPCP, and/or one or more of the proposed shaft sites on the basis of their habitat associations and sensitivity to human disturbance.

Sources: 2000-2005 New York State Breeding Bird Atlas for Census Blocks 6049B, 6050D, and 6250C

Table 5.8-2

Reptiles and Amphibians Documented in the Vicinity of the Proposed Action

Species Common Name	Bay Park STP and Shaft Sites¹	Cedar Creek WPCP and Shaft Sites²
Spotted salamander	X	
Northern red-backed salamander	X	X
Fowler's toad	X	X
Spring peeper	X	
Bullfrog	X	
Green frog	X	X
Wood frog	X	
Snapping turtle	X	X
Eastern box turtle	X	X
Northern diamondback terrapin		X
Eastern redbelly turtle		X
Red-eared slider	X	X
Painted turtle	X	X
Italian wall lizard	X	
Northern brown snake	X	X
Common garter snake	X	X

Notes:

¹ Lynbrook Quadrangle

² Freeport Quadrangle

Source: 1990-1999 Herp Atlas Project for relevant quadrangles

Table 5.8-3

Type of Habitat and Terrestrial Wildlife with the Potential to Occur at Construction Sites

Construction Site	Habitat Present at the Project Site	Habitat Present Adjacent to the Construction Site	Wildlife with the Potential to Occur at the Construction Site	Additional Wildlife with the Potential to Occur Adjacent to the Construction Site
Bay Park Shaft Site 1	Impervious surface, mowed lawn within BPSTP property	Impervious surface and mowed lawn, similar to construction site	- Rock dove* - European starling* - House sparrow - Norway rat - House mouse - Eastern gray squirrel	Same
Bay Park Shaft Site 2	Narrow strip of mowed lawn, parking lot	Boat storage yard	- Rock dove - European starling* - House sparrow - Norway rat - House mouse - Eastern gray squirrel	Same
Bay Park Shaft Site 3	Active junkyard with debris and heavy machinery	N/A	- Rock dove - European starling - House sparrow - Norway rat	N/A
Bay Park Shaft Site 4	Parking lot near the edge of the Mill River, with some mature trees and ruderal vegetation	Mill River shoreline, with a road and railroad tracks on other side of parking lot	- Rock dove - European starling - House sparrow - Norway rat - House mouse - Eastern gray squirrel - Red-winged blackbird - Song sparrow	- Canada goose - Laughing gull
Bay Park Shaft Site 5	East Rockaway Gazebo Park, which has manicured lawn, walking paths, widely spaced mature shade trees, ruderal herbaceous vegetation, riprap shoreline	Train station, Mill River	- Rock dove - European starling* - House sparrow - Norway rat - House mouse - Eastern gray squirrel - Canada goose - Ring-billed and herring gulls - Raccoon	- Red-winged blackbird - Song sparrow - Double-crested cormorant
Bay Park Shaft Site 6	East Rockaway High School near parking lot and basketball court	Narrow row of trees and Mill River shoreline	- Rock dove - European starling - House sparrow	- Red-winged blackbird - Song sparrow
Bay Park Shaft Site 7	Urban vacant lot along Mill River with bare earth and some ruderal non-native vegetation	Mill River shoreline	- Rock dove - European starling - House sparrow - American robin - Blue jay - Killdeer - Northern mockingbird - House mouse - Eastern gray squirrel - Raccoon - Norway rat	- Red-winged blackbird - Song sparrow

Table 5.8-3 (continued)
Type of Habitat and Terrestrial Wildlife with the Potential to Occur at
Construction Sites

Construction Site	Habitat Present at the Project Site	Habitat Present Adjacent to the Construction Site	Wildlife with the Potential to Occur at the Construction Site	Additional Wildlife with the Potential to Occur Adjacent to the Construction Site
Bay Park Shaft Site 8	Baseball field with manicured lawn	Four basketball courts	- European starling - House sparrow* - American robin - Canada goose - Eastern gray squirrel	Same
Bay Park Shaft Site 9	Manicured lawn and shade trees between Sunrise Highway and exit ramp for Merrick Road	Multiple roadways	- European starling* - House sparrow - Canada goose - Eastern gray squirrel*	Same
Cedar Creek Shaft Site 1	Manicured lawn and paved roadway within CCWPCP property	Recently disturbed, sandy, xeric upland area containing patches of bare sandy ground and maritime shrubland, transitioning towards a tidal creek and marsh	- European starling - House sparrow - American robin* - Gray catbird* - Eastern gray squirrel - Norway rat - Canada goose	- Song sparrow - Common yellowthroat* - Eastern towhee - Mourning dove - Killdeer - House mouse - Meadow vole - Northern black racer - Common garter snake - Red-winged blackbird*
Cedar Creek Shaft Site 2	Manicured lawn and paved roadway within CCWPCP property	Phragmites-dominated marsh associated with tidal creek extending south to the Bay	- European starling - House sparrow - American robin* - Gray catbird* - Eastern gray squirrel - Norway rat - Canada goose	- Mallard - Mute swan - Red-winged blackbird* - Song sparrow - Common yellowthroat* - Common garter snake - Common snapping turtle - Muskrat - Meadow vole - Northern diamond-backed terrapin
Cedar Creek Shaft Site 3	Manicured lawn with shade trees within Cedar Creek Park	Narrow fragment of woodland	- Rock dove - European starling* - House sparrow* - American robin* - Gray catbird* - Canada goose* - Eastern gray squirrel	- Blue jay - Black-capped chickadee - Tufted titmouse - Downy woodpecker - Northern flicker* - Northern cardinal* - House mouse - Eastern chipmunk - Raccoon - Common garter snake - Northern red-backed salamander

Table 5.8-3 (continued)
Type of Habitat and Terrestrial Wildlife with the Potential to Occur at
Construction Sites

Construction Site	Habitat Present at the Project Site	Habitat Present Adjacent to the Construction Site	Wildlife with the Potential to Occur at the Construction Site	Additional Wildlife with the Potential to Occur Adjacent to the Construction Site
Cedar Creek Shaft Site 4	Narrow margin of trees between King Road and Wantagh State Parkway	Multiple roadways and areas of dense, suburban residential development	<ul style="list-style-type: none"> - Blue jay* - American robin* - Northern cardinal* - Mourning dove* - Black-capped chickadee - Tufted titmouse - Downy woodpecker - House mouse - White-footed mouse - Eastern chipmunk - Raccoon - Common garter snake 	Same
Cedar Creek Shaft Site 5	Narrow margin of trees between Linden Street and Wantagh State Parkway	Multiple roadways and areas of dense, suburban residential development	<ul style="list-style-type: none"> - Blue jay - American robin* - Northern cardinal* - Mourning dove* - Black-capped chickadee - Tufted titmouse - Downy woodpecker - House mouse - White-footed mouse - Eastern chipmunk - Raccoon - Common garter snake 	Same
Cedar Creek Shaft Site 6	Wooded area at the extreme edge of a 40-acre tract of forest, on the northwestern boundary of Mill Pond Park. Directly next to a paved road and housing development	Forest is bounded by a freshwater pond to the south and by roads and dense suburban residential development in all other directions	<ul style="list-style-type: none"> - Blue jay* - Black-capped chickadee - Tufted titmouse - Downy woodpecker - Red-bellied woodpecker - White-breasted nuthatch - Gray catbird* - Eastern gray squirrel* - White-footed mouse - Eastern chipmunk - Raccoon - Northern red-backed salamander 	Same

Notes: Species marked with an * were observed during site reconnaissance. No wildlife was observed at Bay Park Shaft Sites 3, 4, 6, or 7, or at Cedar Creek Shaft Sites 1 and 2.

Table 5.8-4

Aquatic Biota with the Potential to Occur in the Western Bays

Group	Common Name	Scientific Name
Submerged Aquatic Vegetation and Benthic Algae	Eelgrass	<i>Zostera</i> spp.
Submerged Aquatic Vegetation and Benthic Algae	Sea lettuce	<i>Ulva</i> spp.
Submerged Aquatic Vegetation and Benthic Algae	Rockweed	<i>Fucus</i> spp.
Submerged Aquatic Vegetation and Benthic Algae	Red weed	<i>Gracilaria</i> spp.
Submerged Aquatic Vegetation and Benthic Algae	Banded weed	<i>Ceramium</i> spp.
Benthic Invertebrates	Polychaete worms	<i>Streblospio benedicti</i> (example)
Benthic Invertebrates	Gammarid amphipods	<i>Ampelisca abdita</i> (example)
Benthic Invertebrates	Comb jelly	Ctenophora
Benthic Invertebrates	Soft clam	<i>Mya arenaria</i>
Benthic Invertebrates	Hard clam	<i>Mercenaria mercenaria</i>
Benthic Invertebrates	Bay scallop	<i>Argopecten irradians</i>
Benthic Invertebrates	Ribbed mussel	<i>Geukensia demissa</i>
Benthic Invertebrates	Blue crab	<i>Callinectes sapidus</i>
Benthic Invertebrates	Horseshoe crab	<i>Limulus polyphemus</i>
Benthic Invertebrates	Gammarid amphipod	<i>Ampelisca abdita</i>
Benthic Invertebrates	Polychaete worm	<i>Streblospio benedicti</i>
Benthic Invertebrates	Green crab	<i>Carcinus maenas</i>
Benthic Invertebrates	Atlantic mud crab	<i>Panopeus herbistii</i>
Benthic Invertebrates	Eastern mudsnail	<i>Ilyanassa obsoleta</i>
Benthic Invertebrates	Grass shrimp	<i>Palaemonetes vulgaris</i>
Benthic Invertebrates	Golden star tunicate	<i>Botryllus schlosseri</i>
Benthic Invertebrates	Red beard sponge	<i>Microciona prolifera</i>
Finfish	Striped bass	<i>Morone saxatilis</i>
Finfish	Bluefish	<i>Pomatomus saltatrix</i>
Finfish	Winter flounder	<i>Pleuronectes americanus</i>
Finfish	Summer flounder	<i>Pleuronectes dentatus</i>
Finfish	Weakfish	<i>Cynoscion regalis</i>
Finfish	Gray snapper	<i>Lutjanus griseus</i>
Finfish	Scup	<i>Stenotomus chrysops</i>
Finfish	Striped searobin	<i>Prionotus evolans</i>
Finfish	Seaboard goby	<i>Gobiosoma ginsburgi</i>
Finfish	Oyster toadfish	<i>Opsanus tau</i>
Finfish	Grubby	<i>Myoxocephalus aeneus</i>
Finfish	Spotted hake	<i>Urophycis regia</i>
Finfish	Northern pipefish	<i>Syngnathus fuscus</i>
Finfish	Northern kingfish	<i>Menticirrhus saxatilis</i>
Finfish	Atlantic silverside	<i>Menidia</i> spp.
Finfish	Atlantic menhaden	<i>Brevoortia tyrannus</i>
Finfish	Bay anchovy	<i>Anchoa mitchilli</i>
Finfish	Mummichog	<i>Fundulus heteroclitus</i>
Finfish	Striped killifish	<i>Fundulus majalis</i>

Sources: USFWS 1997, NOAA 2003, SoMAS 2010, SoMAS 2011, NYSDOS 2008a, NYSDOS 2008b, ASA 2005, ASA 2009, USACE 2004, Duguay et al. 1989

Table 5.8-5
Species with Designated Essential Fish Habitat in West Hempstead Bay

Species	Eggs	Larvae	Juvenile	Adult
Winter flounder (<i>Pseudopleuronectes americanus</i>)	X	X	X	X
Little skate (<i>Leucoraja erinacea</i>)			X	X
Atlantic herring (<i>Clupea harengus</i>)			X	X
Atlantic cod (<i>Gadus morhua</i>)				X
Pollock (<i>Pollacius virens</i>)			X	
Red hake (<i>Urophycis chuss</i>)				X
Yellowtail flounder (<i>Pleuronectes ferruginea</i>)				X
Monkfish (<i>Lophius americanus</i>)	X	X		X
Windowpane flounder (<i>Scophthalmus aquosus</i>)	X	X	X	X
Winter skate (<i>Leucoraja ocellata</i>)			X	X
Sandbar shark (<i>Charcharinus plumbeus</i>)			X	X
Skipjack tuna (<i>Katsuwonus pelamis</i>)				X
White shark (<i>Carcharodon carcharias</i>)		X ⁽¹⁾		
Smoothhound shark complex (<i>Mustelus</i> sp.)	n/a	X ⁽¹⁾	X	X
Sand tiger shark (<i>Carcharias taurus</i>)		X ⁽¹⁾	X	
Longfin inshore squid (<i>Doryteuthis pealeii</i>)	X		X	
Atlantic mackerel (<i>Scomber scombrus</i>)	X	X	X	X
Bluefish (<i>Pomatomus saltatrix</i>)			X	X
Atlantic butterfish (<i>Peprilus triacanthus</i>)			X	
Spiny dogfish (<i>Squalus acanthias</i>)			X ⁽²⁾	X ⁽²⁾
Scup (<i>Stenotomus chrysops</i>)			X	X
Summer flounder (<i>Paralichthys dentatus</i>)			X	X
Black sea bass (<i>Centropristis striata</i>)			X	X

Notes:

⁽¹⁾ Species does not have a free-swimming larval stage; rather they are live bearers that give birth to fully formed juveniles. For the purposes of this table, "larvae" refers to neonates and early juveniles

⁽²⁾ EFH designated for sub-adult females and adult males

Sources: NMFS EFH Mapper at habitat.noaa.gov/protection/efh/efhmapper/index.html

Table 5.8-6
Species with Designated Essential Fish Habitat in Middle Hempstead Bay

Species	Eggs	Larvae	Juvenile	Adult
Winter flounder (<i>Pseudopleuronectes americanus</i>)	X	X	X	X
Little skate (<i>Leucoraja erinacea</i>)			X	X
Ocean pout (<i>Zoarces americanus</i>)	X			X
Atlantic herring (<i>Clupea harengus</i>)			X	X
Atlantic cod (<i>Gadus morhua</i>)				X
Pollock (<i>Pollacius virens</i>)			X	
Red hake (<i>Urophycis chuss</i>)				X
Yellowtail flounder (<i>Pleuronectes ferruginea</i>)				X
Monkfish (<i>Lophius americanus</i>)	X	X		
Windowpane flounder (<i>Scopthalmus aquosus</i>)	X	X	X	X
Winter skate (<i>Leucoraja ocellata</i>)			X	X
White hake (<i>Urophycis tenuis</i>)			X	
Bluefin tuna (<i>Thunnus thynnus</i>)			X	
Sandbar shark (<i>Charcharinus plumbeus</i>)			X	X
Skipjack tuna (<i>Katsuwonus pelamis</i>)				X
White shark (<i>Carcharodon carcharias</i>)		X ⁽¹⁾		
Smoothhound shark complex (<i>Mustelus</i> sp.)	n/a	X ⁽¹⁾	X	X
Sand tiger shark (<i>Carcharias taurus</i>)		X ⁽¹⁾	X	
Longfin inshore squid (<i>Doryteuthis pealeii</i>)	X		X	
Atlantic mackerel (<i>Scomber scombrus</i>)	X	X	X	X
Bluefish (<i>Pomatomus saltatrix</i>)			X	X
Atlantic butterfish (<i>Peprilus triacanthus</i>)			X	
Spiny dogfish (<i>Squalus acanthias</i>)			X ⁽²⁾	X ⁽²⁾
Scup (<i>Stenotomus chrysops</i>)			X	X
Summer flounder (<i>Paralichthys dentatus</i>)			X	X
Black sea bass (<i>Centropristis striata</i>)			X	X

Notes:

⁽¹⁾ Species does not have a free-swimming larval stage; rather they are live bearers that give birth to fully formed juveniles. For the purposes of this table, "larvae" refers to neonates and early juveniles

⁽²⁾ EFH designated for sub-adult females and adult males

Sources: NMFS EFH Mapper at habitat.noaa.gov/protection/efh/efhmapper/index.html

Table 5.8-7

**Fish Species with the Potential to Occur in the Vicinity of the Existing CCWPCP
Outfall Diffuser**

Common Name	Scientific Name
Albacore tuna	<i>Thunnus alalunga</i>
Alewife	<i>Alosa pseudoharengus</i>
American eel	<i>Anguilla rostrata</i>
American sand lance	<i>Ammodytes hexapterus</i>
American shad	<i>Alosa sapidissima</i>
Atlantic angel shark	<i>Squatina dumeril</i>
Atlantic bluefin tuna	<i>Thunnus thynnus</i>
Atlantic croaker	<i>Micropogonias undulatus</i>
Atlantic herring	<i>Clupea harengus</i>
Atlantic mackerel	<i>Scomber scombrus</i>
Atlantic menhaden	<i>Brevoortia tyrannus</i>
Atlantic sharpnose shark	<i>Rhizoprionodon terraenovae</i>
Atlantic silverside	<i>Menidia menidia</i>
Atlantic sturgeon	<i>Acipenser oxyrhynchus</i>
Atlantic swordfish	<i>Xiphias gladius</i>
Basking shark	<i>Cetorhinus maximus</i>
Bigeye tuna	<i>Thunnus obesus</i>
Blackfin tuna	<i>Thunnus atlanticus</i>
Black sea bass	<i>Centropristis striata</i>
Black tip shark	<i>Carcharhinus limbatus</i>
Blacknose shark	<i>Carcharhinus acronotus</i>
Blueback herring	<i>Alosa aestivalis</i>
Bluefish	<i>Pomatomus saltatrix</i>
Blue marlin	<i>Makaira nigricans</i>
Bonnethead shark	<i>Sphyrna tiburo</i>
Bull shark	<i>Carcharhinus leucas</i>
Bullet mackerel	<i>Auxis rochei</i>
Butterfish	<i>Peprilus triacanthus</i>
Cobia	<i>Rachycentron canadum</i>
Dolphin fish	<i>Coryphaena hippurus</i>
Dusky shark	<i>Carcharhinus obscurus</i>
Finetooth shark	<i>Carcharhinus isodon</i>
Frigate mackerel	<i>Auxis thazard</i>
Goosefish	<i>Lophius americanus</i>
Great hammerhead	<i>Sphyrna mokarran</i>
Great white shark	<i>Carcharodon carcharias</i>
King mackerel	<i>Scomberomorus cavalla</i>
Lemon shark	<i>Negaprion brevirostris</i>
Little tunny	<i>Euthynnus alletteratus</i>
Night shark	<i>Carcharhinus signatus</i>
Northern kingfish	<i>Menticirrhus saxatilis</i>
Ocean pout	<i>Macrozoarces americanus</i>
Oyster toadfish	<i>Opsanus tau</i>
Planehead filefish	<i>Monacanthus hispidus</i>
Pollock	<i>Pollachius virens</i>
Rainbow smelt	<i>Osmerus mordax</i>
Red hake	<i>Urophycis chuss</i>
Reef shark	<i>Carcharhinus perezii</i>
Rock gunnel	<i>Pholis gunnellus</i>
Rough scad	<i>Trachurus lathami</i>
Sailfish	<i>Istiophorus platypterus</i>
Sandbar shark	<i>Carcharhinus plumbeus</i>
Scalloped hammerhead	<i>Sphyrna lewini</i>
Scup	<i>Stenotomus chrysops</i>
Seaboard goby	<i>Gobiosoma ginsburgi</i>
Short bigeye	<i>Pristigenys alta</i>

Table 5.8-7 (continued)

**Fish Species with the Potential to Occur in the Vicinity of the Existing CCWPCP
Outfall Diffuser**

Common Name	Scientific Name
Silky shark	<i>Carcharhinus falciformis</i>
Silver hake	<i>Merluccius bilinearis</i>
Silver perch	<i>Bairdiella chrysoura</i>
Skipjack tuna	<i>Katsuwonus pelamis</i>
Smallmouth flounder	<i>Etropus microstomus</i>
Smooth hammerhead	<i>Sphyrna zygaena</i>
Spanish mackerel	<i>Scomberomorus maculatus</i>
Spinner shark	<i>Carcharhinus bevipinna</i>
Spiny dogfish	<i>Squalus acanthias</i>
Spot	<i>Leiostomus xanthurus</i>
Spotfin butterflyfish	<i>Chaetodon ocellatus</i>
Spotted hake	<i>Urophycis regia</i>
Striped bass	<i>Morone saxatilis</i>
Striped cuskeel	<i>Ophidion marginatum</i>
Striped killifish	<i>Fundulus majalis</i>
Striped mullet	<i>Mugil cephalus</i>
Striped searobin	<i>Prionotus evolans</i>
Summer flounder	<i>Paralichthys dentatus</i>
Tautog	<i>Tautoga onitis</i>
Threespine stickleback	<i>Gasterosteus aculeatus</i>
Tiger shark	<i>Galeocerdo cuvier</i>
Tilefish	<i>Lopholatilus chamaeleonticeps</i>
Tomcod	<i>Microgadus tomcod</i>
Weakfish	<i>Cynoscion regalis</i>
Whale shark	<i>Rhincodon typus</i>
White hake	<i>Urophycis tenuis</i>
White Marlin	<i>Tetrapturus albidus</i>
White mullet	<i>Mugil curema</i>
White perch	<i>Morone americana</i>
Windowpane flounder	<i>Scophthalmus aquosus</i>
Winter flounder	<i>Pseudopleuronectes americanus</i>
Witch flounder	<i>Glyptocephalus cynoglossus</i>
Yellowfin tuna	<i>Thunnus albacares</i>
Yellowtail flounder	<i>Limanda ferruginea</i>

Sources: USFWS 1997, NOAA 2009

Table 5.8-8

Species with Designated Essential Fish Habitat in the Atlantic Ocean Study Area

Species	Eggs	Larvae	Juvenile	Adult
Winter flounder (<i>Pseudopleuronectes americanus</i>)	X	X	X	X
Little skate (<i>Leucoraja erinacea</i>)			X	
Ocean pout (<i>Zoarces americanus</i>)	X			X
Atlantic herring (<i>Clupea harengus</i>)			X	X
Atlantic cod (<i>Gadus morhua</i>)	X	X		
Red hake (<i>Urophycis chuss</i>)	X	X	X	X
Monkfish (<i>Lophius americanus</i>)	X	X		
Windowpane flounder (<i>Scopthalmus aquosus</i>)	X	X	X	X
Winter skate (<i>Leucoraja ocellata</i>)			X	
White hake (<i>Urophycis tenuis</i>)			X	
Pollock (<i>Pollacius virens</i>)	X			
Bluefin tuna (<i>Thunnus thynnus</i>)			X	
Common thresher shark (<i>Alopias vulpinus</i>)		X ⁽¹⁾	X	X
Dusky shark (<i>Carcharhinus obscurus</i>)		X ⁽¹⁾		
Sandbar shark (<i>Charcharinus plumbeus</i>)		X ⁽¹⁾	X	X
Skipjack tuna (<i>Katsuwonus pelamis</i>)				X
White shark (<i>Carcharodon carcharias</i>)		X ⁽¹⁾	X	X
Smoothhound shark complex (<i>Mustelus</i> sp.)		X ⁽¹⁾	X	X
Sand tiger shark (<i>Carcharias taurus</i>)		X ⁽¹⁾	X	
Longfin inshore squid (<i>Doryteuthis pealeii</i>)	X			
Bluefish (<i>Pomatomus saltatrix</i>)			X	X
Atlantic butterfish (<i>Peprilus triacanthus</i>)			X	
Atlantic surfclam (<i>Spisula solidissima</i>)			X	X
Scup (<i>Stenotomus chrysops</i>)			X	X
Summer flounder (<i>Paralichthys dentatus</i>)			X	X
Black sea bass (<i>Centropristis striata</i>)				X

Notes:

⁽¹⁾ Species does not have a free-swimming larval stage; rather they are live bearers that give birth to fully formed juveniles. For the purposes of this table, "larvae" refers to neonates and early juveniles

Sources: NMFS EFH Mapper at habitat.noaa.gov/protection/efh/efhmapper/index.html

Table 5.8-9
Marine Mammals of the New York Bight

Common Name	Scientific Name
Antillean beaked whale	<i>Mesoplodon europeaus</i>
Atlantic spotted dolphin†	<i>Stenella frontalis</i>
Atlantic white-sided dolphin†	<i>Lagenorhynchus acutus</i>
Beluga	<i>Delphinapterus leucas</i>
Blue whale*	<i>Balaenoptera musculus</i>
Bottle-nosed dolphin†	<i>Tursiops truncatus</i>
Dense-beaked whale	<i>Mesoplodon densirostris</i>
Finback whale*	<i>Balaenoptera physalus</i>
Goosebeaked whale	<i>Ziphius cavirostris</i>
Risso's dolphin	<i>Grampus griseus</i>
Grey seal	<i>Halichoerus grypus</i>
Harbor porpoise	<i>Phocoena phocoena</i>
Harbor seal	<i>Phoca vitulina</i>
Harp seal	<i>Phoca groenlandica</i>
Hooded seal	<i>Cystophora cristata</i>
Humpback whale*†	<i>Megaptera novaeangliae</i>
Killer whale	<i>Orcinus orca</i>
Long-finned pilot whale	<i>Globicephala melas</i>
Minke whale†	<i>Balaenoptera acutorostrata</i>
Northern right whale*†	<i>Eubalaena glacialis</i>
Pantropical spotted dolphin	<i>Stenella attenuata</i>
Pygmy sperm whale	<i>Kogia breviceps</i>
Ringed seal	<i>Phoca hispida</i>
Sei whale*	<i>Balaenoptera borealis</i>
Short-beaked common dolphin†	<i>Delphinus delphis</i>
Sperm whale*	<i>Physeter catodon</i>
Striped dolphin	<i>Stenella coeruleoalba</i>
True's beaked whale	<i>Mesoplodon mirus</i>

Notes:

† indicates the species that are more likely to occur in nearshore waters off western Long Island and near the ocean outfall diffuser than the other species, which tend to occur in deeper pelagic waters near the continental shelf.

* indicates Federally endangered species

Sources: Sadove and Morreale 1990, USFWS 1997, CRESLI 2003, Turner 2011, NYSDOS 2013

**Table 5.11-1
Race, Ethnicity, and Poverty Status**

Census Tract/ Town/ County	Block Group	Total Population	Asian Population	Percentage Asian	Black Population	Percentage Black	Hispanic or Latino Population	Percentage Hispanic or Latino	White Population	Percentage White	Other Population	Percentage Other	Total Percentage Minority	Poverty Status
Nassau	N/A	1,356,564	125198	9.2%	151,236	11.1%	225,581	16.6%	824,425	60.8%	7,143	0.5%	37.5%	5.7%
Town of Hempstead	N/A	768,057	45,646	5.9%	126,716	16.5%	157,384	20.5%	420,628	54.8%	3741	0.5%	43.4%	6.2%
Study Area	N/A	91,244	2,582	2.8%	8,390	9.2%	18,352	20.1%	60,514	66.3%	1,406	1.5%	33.7%	5.9%
4121.00	1	674	0	0.0%	0	0.0%	63	9.3%	611	90.7%	0	0.0%	9.3%	4.45%
4121.00	2	1,096	24	2.2%	170	15.5%	45	4.1%	857	78.2%	0	0.0%	21.8%	1.37%
4121.00	3	1,309	41	3.1%	0	0.0%	218	16.7%	1,050	80.2%	0	0.0%	19.8%	0.69%
4122.00	1	944	0	0.0%	86	9.1%	155	16.4%	703	74.5%	0	0.0%	25.5%	0.00%
4122.00†	2†	1,338†	40†	3.0%†	0†	0.0%†	242†	18.1%†	1,056†	78.9%†	0†	0.0%†	21.1%†	14.57%†
4122.00	3	910	106	11.6%	0	0.0%	30	3.3%	774	85.1%	0	0.0%	14.9%	3.96%
4122.00	4	704	21	3.0%	0	0.0%	13	1.8%	670	95.2%	0	0.0%	4.8%	3.41%
4123.01	1	1,858	124	6.7%	0	0.0%	554	29.8%	1,167	62.8%	13	0.7%	37.2%	5.97%
4123.01	2	1,594	82	5.1%	65	4.1%	282	17.7%	1,158	72.6%	7	0.4%	27.4%	5.14%
4123.02	1	934	91	9.7%	20	2.1%	279	29.9%	544	58.2%	0	0.0%	41.8%	8.52%
4123.02*	4*	639*	0*	0.0%*	180*	28.2%*	220*	34.4%*	239*	37.4%*	0*	0.0%*	62.6%*	8.29%*
4124.00	1	998	16	1.6%	0	0.0%	33	3.3%	949	95.1%	0	0.0%	4.9%	0.00%
4124.00*‡	2*‡	1,313*‡	92*‡	7.0%*‡	148*‡	11.3%*‡	481*‡	36.6%*‡	558*‡	42.5%*‡	34*‡	2.6%*‡	57.5%*‡	11.81%*‡
4124.00	3	399	34	8.5%	0	0.0%	16	4.0%	349	87.5%	0	0.0%	12.5%	0.00%
4130.01	3	1,312	28	2.1%	80	6.1%	40	3.0%	1,164	88.7%	0	0.0%	11.3%	1.45%
4130.02	1	993	8	0.8%	0	0.0%	160	16.1%	825	83.1%	0	0.0%	16.9%	13.60%
4130.02	2	895	0	0.0%	14	1.6%	218	24.4%	663	74.1%	0	0.0%	25.9%	0.00%
4130.02	3	1,244	0	0.0%	0	0.0%	240	19.3%	1,004	80.7%	0	0.0%	19.3%	4.42%
4130.02	4	859	14	1.6%	0	0.0%	31	3.6%	814	94.8%	0	0.0%	5.2%	3.26%
4131.00	2	735	97	13.2%	5	0.7%	145	19.7%	488	66.4%	0	0.0%	33.6%	8.30%
4132.00	1	430	25	5.8%	0	0.0%	94	21.9%	311	72.3%	0	0.0%	27.7%	0.00%
4132.00	2	1,356	0	0.0%	0	0.0%	67	4.9%	1,289	95.1%	0	0.0%	4.9%	0.00%
4132.00	3	2,068	62	3.0%	0	0.0%	233	11.3%	1,773	85.7%	0	0.0%	14.3%	4.84%
4132.00	4	512	9	1.8%	1	0.2%	103	20.1%	399	77.9%	0	0.0%	22.1%	3.13%
4133.00	7	738	70	9.5%	0	0.0%	48	6.5%	620	84.0%	0	0.0%	16.0%	0.00%
4134.00	1	929	8	0.9%	0	0.0%	173	18.6%	734	79.0%	14	1.5%	21.0%	7.97%
4134.00	2	1,681	0	0.0%	11	0.7%	58	3.5%	1,584	94.2%	28	1.7%	5.8%	0.59%
4134.00	3	1,945	6	0.3%	50	2.6%	273	14.0%	1,601	82.3%	15	0.8%	17.7%	0.26%
4134.00	4	1,049	42	4.0%	0	0.0%	31	3.0%	976	93.0%	0	0.0%	7.0%	0.76%
4136.00*‡	1*‡	953*‡	16*‡	1.7%*‡	146*‡	15.3%*‡	307*‡	32.2%*‡	440*‡	46.2%*‡	44*‡	4.6%*‡	53.8%*‡	15.22%*‡
4136.00*	2*	1,229*	90*	7.3%*	179*	14.6%*	372*	30.3%*	561*	45.6%*	27*	2.2%*	54.4%*	5.21%*
4136.00*‡	3*‡	1,136*‡	13*‡	1.1%*‡	165*‡	14.5%*‡	524*‡	46.1%*‡	434*‡	38.2%*‡	0*‡	0.0%*‡	61.8%*‡	27.64%*‡
4136.00*	4*	1,159*	15*	1.3%*	212*	18.3%*	412*	35.5%*	520*	44.9%*	0*	0.0%*	55.1%*	5.95%*
4136.00*	5*	1,186*	138*	11.6%*	414*	34.9%*	71*	6.0%*	514*	43.3%*	49*	4.1%*	56.7%*	5.40%*
4138.03*	2*	756*	0*	0.0%*	121*	16.0%*	410*	54.2%*	225*	29.8%*	0*	0.0%*	70.2%*	18.39%*
4138.03*	3*	1,212*	45*	3.7%*	441*	36.4%*	282*	23.3%*	411*	33.9%*	33*	2.7%*	66.1%*	3.05%*
4138.04	2	1,236	30	2.4%	182	14.7%	101	8.2%	847	68.5%	76	6.1%	31.5%	3.64%

Table 5.11-1 (continued)
Race, Ethnicity, and Poverty Status

Census Tract/ Town/ County	Block Group	Total Population	Asian Population	Percentage Asian	Black Population	Percentage Black	Hispanic or Latino Population	Percentage Hispanic or Latino	White Population	Percentage White	Other Population	Percentage Other	Total Percentage Minority	Poverty Status
4138.04	3	1,107	13	1.2%	116	10.5%	287	25.9%	674	60.9%	17	1.5%	39.1%	2.01%
4142.01*	1*	1,887*	9*	0.5%*	510*	27.0%*	1,034*	54.8%*	306*	16.2%*	28*	1.5%*	83.8%*	8.74%*
4142.01*	3*	2,103*	29*	1.4%*	373*	17.7%*	1,352*	64.3%*	272*	12.9%*	77*	3.7%*	87.1%*	17.78%*
4143.01*	1*	2,872*	59*	2.1%*	857*	29.8%*	1,462*	50.9%*	308*	10.7%*	186*	6.5%*	89.3%*	12.47%*
4143.01*	2*	1,250*	105*	8.4%*	316*	25.3%*	303*	24.2%*	504*	40.3%*	22*	1.8%*	59.7%*	2.21%*
4143.03*	2*	700*	0*	0.0%*	100*	14.3%*	363*	51.9%*	220*	31.4%*	17*	2.4%*	68.6%*	6.43%*
4144.00*	2*	1,155*	0*	0.0%*	268*	23.2%*	872*	75.5%*	0*	0.0%*	15*	1.3%*	100.0%*	10.48%*
4144.00*	3*	1,137*	0*	0.0%*	186*	16.4%*	951*	83.6%*	0*	0.0%*	0*	0.0%*	100.0%*	21.28%*
4144.00*‡	4*‡	318*‡	0*‡	0.0%*‡	176*‡	55.3%*‡	83*‡	26.1%*‡	59*‡	18.6%*‡	0*‡	0.0%*‡	81.4%*‡	25.16%*‡
4144.00*	5*	1,650*	40*	2.4%*	362*	21.9%*	815*	49.4%*	418*	25.3%*	15*	0.9%*	74.7%*	19.64%*
4145.01	1	1,598	0	0.0%	540	33.8%	175	11.0%	742	46.4%	141	8.8%	53.6%	6.57%
4145.01*‡	2*‡	1,515*‡	6*‡	0.4%*‡	157*‡	10.4%*‡	628*‡	41.5%*‡	691*‡	45.6%*‡	33*‡	2.2%*‡	54.4%*‡	11.29%*‡
4145.01	3	1,029	13	1.3%	382	37.1%	40	3.9%	558	54.2%	36	3.5%	45.8%	4.08%
4145.01	4	1,120	0	0.0%	190	17.0%	207	18.5%	669	59.7%	54	4.8%	40.3%	5.00%
4145.02	1	1,668	33	2.0%	255	15.3%	220	13.2%	1,139	68.3%	21	1.3%	31.7%	3.72%
4145.02	2	1,432	17	1.2%	55	3.8%	569	39.7%	729	50.9%	62	4.3%	49.1%	5.59%
4145.02*	3*	1,012*	194*	19.2%*	174*	17.2%*	175*	17.3%*	419*	41.4%*	50*	4.9%*	58.6%*	0.00%*
4150.00‡	4‡	503‡	0‡	0.0%‡	0‡	0.0%‡	120‡	23.9%‡	383‡	76.1%‡	0‡	0.0%‡	23.9%‡	26.24%‡
4151.01	1	1,337	56	4.2%	39	2.9%	58	4.3%	1,184	88.6%	0	0.0%	11.4%	2.63%
4151.01	2	1,185	28	2.4%	156	13.2%	90	7.6%	904	76.3%	7	0.6%	23.7%	1.27%
4151.02	1	910	0	0.0%	43	4.7%	53	5.8%	807	88.7%	7	0.8%	11.3%	0.77%
4151.02	4	827	0	0.0%	0	0.0%	25	3.0%	802	97.0%	0	0.0%	3.0%	5.32%
4151.02	5	1,076	0	0.0%	0	0.0%	129	12.0%	947	88.0%	0	0.0%	12.0%	3.90%
4152.01	3	988	6	0.6%	157	15.9%	49	5.0%	758	76.7%	18	1.8%	23.3%	3.81%
4152.02	1	611	0	0.0%	0	0.0%	110	18.0%	501	82.0%	0	0.0%	18.0%	0.00%
4152.02	2	836	7	0.8%	7	0.8%	104	12.4%	718	85.9%	0	0.0%	14.1%	0.00%
4152.02	3	546	18	3.3%	0	0.0%	17	3.1%	490	89.7%	21	3.8%	10.3%	4.21%
4152.02	4	1,956	102	5.2%	0	0.0%	33	1.7%	1,821	93.1%	0	0.0%	6.9%	0.00%
4153.00	2	778	23	3.0%	93	12.0%	98	12.6%	469	60.3%	95	12.2%	39.7%	0.77%
4153.00	3	596	91	15.3%	0	0.0%	100	16.8%	405	68.0%	0	0.0%	32.0%	0.00%
4153.00	4	1,294	35	2.7%	104	8.0%	0	0.0%	1,155	89.3%	0	0.0%	10.7%	1.08%
4154.01	1	644	0	0.0%	3	0.5%	38	5.9%	577	89.6%	26	4.0%	10.4%	5.59%
4154.01	2	730	10	1.4%	0	0.0%	113	15.5%	607	83.2%	0	0.0%	16.8%	7.40%
4154.01	3	2,962	13	0.4%	15	0.5%	203	6.9%	2,689	90.8%	42	1.4%	9.2%	1.18%
4154.01	4	1017	12	1.2%	0	0.0%	46	4.5%	959	94.3%	0	0.0%	5.7%	4.23%
4154.02	1	2,224	126	5.7%	0	0.0%	44	2.0%	2,054	92.4%	0	0.0%	7.6%	6.70%
4156.00	6	504	0	0.0%	15	3.0%	23	4.6%	466	92.5%	0	0.0%	7.5%	5.95%
4157.00	1	1,732	15	0.9%	0	0.0%	125	7.2%	1,592	91.9%	0	0.0%	8.1%	1.50%
4157.00	3	1,272	0	0.0%	51	4.0%	72	5.7%	1,094	86.0%	55	4.3%	14.0%	8.10%
4157.00	4	1,851	41	2.2%	0	0.0%	142	7.7%	1,647	89.0%	21	1.1%	11.0%	3.30%
4161.00	4	989	94	9.5%	0	0.0%	0	0.0%	895	90.5%	0	0.0%	9.5%	4.04%

Notes:

* indicates minority community.

† indicates low-income community.

‡ indicates both minority and low-income community.

The racial and ethnic categories provided are further defined as: White (White alone, not Hispanic or Latino); Black (Black or African American alone, not Hispanic or Latino); Asian (Asian alone, not Hispanic or Latino); Other (American Indian and Alaska Native alone, not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone, not Hispanic or Latino; Some other race alone, not Hispanic or Latino; Two or more races, not Hispanic or Latino); Hispanic (Hispanic or Latino; Persons of Hispanic origin may be of any race).

Source: U.S. Census Bureau, ACS 2014–2018 5-year estimates.

Table 5.12-1

Existing Land Use Plans Reviewed for Consistency with the Proposed Action

Existing land use plans reviewed	Short Description
Nassau County, Draft 2010 Master Plan	<p>The Draft 2010 Master Plan (the “plan”) for Nassau County outlines the current issues facing the county (high property taxes, employment growth, and retaining young people/recent graduates). The plan attributes these issues to a shifting paradigm whereby the county must now adapt to the needs of a changing demographic for a more sustainable growth pattern over the next 20 years. With respect to wastewater treatment, Chapter Four, “Infrastructure: Retrofitting Nassau,” describes both the County and municipal facilities and their capacities. Nassau County collects and treats 90 percent of the county’s sewage through the Bay Park and Cedar Creek facilities. Chapter Four also describes the regional challenges of assessing the feasibility of facility consolidation and treated water discharges into the Long Island Sound, the South Shore Estuary, and the Atlantic Ocean. The plan then makes mention of the Long Island South Shore Estuary Reserve: Comprehensive Management Plan (CMP) as it governs discharges to the Atlantic Ocean and South Shore Estuary Reserve.</p>
Long Island South Shore Estuary Reserve: Comprehensive Management Plan (2001)	<p>The New York State legislature passed the Long Island Estuary Reserve Act in 1993, which established the Long Island South Shore Estuary Reserve (Reserve). The Reserve encompasses 75 miles, from the Nassau County/New York border (west) to the Village of Southampton in Suffolk County (east), to the mean high tide line on the ocean side of the barrier islands (south), and to the inland limits of the drainage areas (north). The Reserve is administered by the New York State Department of State and the Long Island South Shore Estuary Reserve Council (Council). The Council was charged with the development of the CMP, which aimed to preserve, protect, and enhance the resources of the South Shore Estuary system. The CMP includes background on land and embayment uses, the estuarine economy, water quality, and living resources. Chapter Seven of the CMP outlines implementation actions for addressing issues related to water quality and living resources, public access and open space, the Reserve’s maritime heritage, its economy and education and outreach. The recommendations that are applicable to the Bay Park Conveyance Project include: Outcome 1-3 (Implementation of on-site wastewater treatment system maintenance and upgrades); Outcome 2-4 (Evaluation of need for wastewater treatment plant upgrades and outfall relocations); Outcome 4-1 (Restoration of tidal wetlands); and Outcome 6-3 (Determination of additional point and nonpoint source pollution controls).</p>
South Shore Blueway Trail Plan	<p>The SSBT Plan is a plan that promotes the non-motorized recreational use of the Western Bays through a series of water trails and access points. The objectives of the SSBT Plan include: identifying amenities and improvements for 7 priority trail access points; design and identify a plan for marketing and promoting the blueway; propose a means of providing consistent information through a trail map and brochure, wayside signage and website; promote conservation ethics, responsible stewardship and safe boating; and recommend a trail implementation and maintenance strategy.</p>
New York Rising Community Reconstruction Plans (NYRCRPs)	<p>New York State established the New York Rising Community Reconstruction program to provide rebuilding assistance to communities severely impacted by Hurricane Sandy, Hurricane Irene, and Tropical Storm Lee through a participatory recovery and resilience initiative. In Table 5.12-2 below, the NYRCRPs within the study area are listed with their proposed/featured and additional relevant projects. These projects have been included here for their proximity to the Bay Park Conveyance Project and their potential to have cumulative effects within the study area.</p>

Table 5.12-2
New York Rising Community Reconstruction Plans in the Study Area

Municipality	NYRCRP Proposed/Featured and Additional Projects	Status	Short Description
V. Freeport	Freeport Community Assistance Centers - Freeport Recreation Center	Bidding / Pre-construction	Resiliency measures to existing facility
V. Freeport	Freeport Green Infrastructure Improvements	Design	Localized stormwater infrastructure improvements
Merrick	Meadowbrook Corridor Watershed Study - Phase I Desktop Analysis	Project Complete	Study/Plan
Oceanside	Oceanside Critical Facilities - Oceanside Fire District	Construction	Resiliency measures to existing facility
Oceanside	Oceanside Critical Facilities - Oceanside Sanitation District	Construction	Resiliency measures to existing facility
Oceanside	Oceanside Critical Facilities - Oceanside School District	Design	Resiliency measures to existing facility
Baldwin	Baldwin Downtown and Commercial Corridor Resiliency Plan	Project Complete	Study/Plan
Barnum Island, Harbor Isle, Island Park	Barnum Island/Harbor Isle: Drainage Improvements (Phase I Design)	Project Complete	Study/Plan
Bay Park, East Rockaway	Bay Park — East Rockaway Drainage Improvements Implementation	Design	Drainage infrastructure Improvements
Bay Park, East Rockaway	Bay Park — East Rockaway Drainage Study	Project Complete	Study/Plan
Baldwin, Baldwin Harbor	Silver Lake Park Drainage Improvements	Design	Drainage infrastructure Improvements
Island Park, Lawrence, Massapequa, Massapequa Park, Merrick, Oceanside, Seaford	Southern Nassau Lifeline Corridor - Traffic Signals - Nassau County	Bidding / Pre-construction	Resiliency upgrades
Baldwin, Baldwin Harbor	Baldwin Park Shoreline Stabilization	Design	Bulkhead and Living Shoreline
V. Freeport	Freeport Community Assistance Centers - Freeport Recreation Center	Bidding / Pre-construction	Resiliency measures to existing facility

**Table 5.12-2 (continued)
New York Rising Community Reconstruction Plans in the Study Area**

Municipality	NYRCRP Proposed/Featured and Additional Projects	Status	Short Description
Baldwin Harbor	Baldwin: East Baldwin Road Raising	Construction	Localized road raising stormwater infrastructure improvements project. Completed
Barnum Island, Harbor Isle, Island Park	Barnum Island/Harbor Isle: Drainage Improvements	Design	Drainage infrastructure Improvements within Barnum Island and Harbor Isle
Bellmore, Merrick, Seaford, Wantagh	Bellmore/Merrick and Seaford/Wantagh: South of Merrick Road Outfall, Bulkhead and Stormwater Drainage and Bulkheading Survey, Inspection and Check Valve Study	Project Complete	Study/Plan
Bellmore, Wantagh	Drainage Improvements: Bellmore and Wantagh Road Raising	Design	Localized road raising stormwater infrastructure improvements
Bellmore, Merrick, Oceanside, Seaford, Wantagh	Drainage Improvements: Check Valves	Design	Localized stormwater infrastructure improvements
Merrick	Drainage Improvements: Merrick Road Raising	Design	Localized road raising stormwater infrastructure improvements project.
Seaford	Drainage Improvements: Neptune Ave and South Street Road Raising	Design	Localized road raising stormwater infrastructure improvements project.
Oceanside	Drainage Improvements: Oceanside Detention System/Inlets	Design	Localized road raising stormwater infrastructure improvements project.
Oceanside	Drainage Improvements: Oceanside Pipes - Derby Drive, Lawson Blvd & Waukena Avenue	Design	Localized stormwater infrastructure improvements project.
Oceanside	Drainage Improvements: Oceanside Pipes - Foxhurst Road & Tinker Drive	Design	Localized road raising stormwater infrastructure improvements project. Completed
Oceanside	Drainage Improvements: Oceanside Road Raising - Carrel Boulevard	Design	Localized road raising stormwater infrastructure improvements project.

**Table 5.12-2 (continued)
New York Rising Community Reconstruction Plans in the Study Area**

Municipality	NYRCRP Proposed/Featured and Additional Projects	Status	Short Description
Oceanside	Drainage Improvements: Oceanside Road Raising - Moreland Ave and Royal Ave	Design	Localized road raising stormwater infrastructure improvements project.
Merrick	Meadowbrook Corridor Green Infrastructure	Design	Localized stormwater infrastructure improvements project.
Oceanside	Oceanside Drainage Improvements Study	Design	Study/Plan
Seaford	Seaford Road Raising	Bidding / Pre-construction	Localized road raising stormwater infrastructure improvements project. Completed
Bellmore, Merrick, Seaford, Wantagh	Street Lighting (Lifeline Corridor)	Construction	Resiliency upgrades to existing street light system
Bay Park, East Rockaway	Harden East Rockaway DPW Garage and John Street Recreation Center	Bidding / Pre-construction	Resiliency measures to existing facility
V. Freeport	Freeport Channel Crossing Electrical Improvements	Project Closeout	Horizontal directional drilling to run electric cable under water.
V. Freeport	Freeport Electric Outage Management System	Project Complete	Technology improvements
V. Freeport	Protection for Freeport's Power Plant II: Hardening and Resiliency	Bidding / Pre-construction	Resiliency measures to existing facility
V. Freeport	Redundant Energy Supply at Power Plant I	Design	Resiliency measures to existing facility and a generator

Source: Governor's Office of Storm Recovery, www.stormrecovery.ny.gov/community-regions/long-island, last accessed on January 21, 2020.