9.0 WATER RESOURCES AND WETLANDS

9.1 Introduction

The Project is located within the Middle Branch of the Croton River watershed of the New York City water supply. The Project must therefore be developed and managed in compliance with all state, regional and local requirements that control the amount of stormwater pollutants entering into this protected water supply. Surface water and wetland features within the entire two lot, 153± acres site from which the Project site would be subdivided, include two streams, one seasonally dry watercourse, a NYSDEC wetland, and three small ponds.

Drainage across the site originates in lands that are generally wooded or brushy. Other properties that abut the Project site include similar woodlands, brush lands, fallow fields, highway-adjacent property (federal interstate highway I-84), and single-family homes. Presently, run-off from the site is expected to be typical of that from undeveloped and wooded land, and is not expected to contain any significant concentrations of pesticides or fertilizers, coliform bacteria from animal waste, or any pollutants from septic systems. Runoff from I-84 that would have the potential for carrying some organic and inorganic pollutants flows toward NYSDEC wetland LC-28 south of the project site.

Town and State Regulations

Disturbances conducted within wetland, watercourse, or controlled buffer land are subject to regulations when they include activities regulated by controlling authorities. The Town of Southeast, in Chapter 78 – Freshwater Wetlands of the Town Code, lists regulated activities and permit requirements applicable to work conducted in any controlled area related to wetlands or watercourses. Such provisions are listed in §78-3B, and include the following:

1. Any form of dredging, draining, or excavation and any grading or removal of soil, mud, sand, gravel, silt or other earth material from any controlled area, either directly or indirectly; or
2. Any form of dumping, filling or deposition of any soil, stones, sand, gravel, mud, rubbish, or fill of any kind in any controlled area, either directly or indirectly; or
3. Erecting any building or other structure, construction of any road, driveway or motor vehicle parking facility, drivings or pilings, installation of any pipe or other conduit or the placing of any other obstructions within a controlled area, whether or not the same affect the ebb and flow of water; or
4. The use of any chemicals, dyes, fertilizers, herbicides or similar materials in any controlled area such that the same may cause pollution of waters; or
5. Creating a diversion of water flow in any watercourses; or
6. Creating an increase or decrease in the flow, velocity or volume of water in any watercourse; or
7. Introducing any influents of high thermal content such that the same are capable of causing deleterious ecological effect; or
8. Destroying or permitting the destruction of any trees or other plant life within the controlled area of a watercourse or wetland. These actions shall be reviewed by the administering authority so as to determine if such acts affect the prevailing surface water runoff conditions, directly or indirectly; or

9. Any other activity which substantially impairs any of the several functions served by the wetlands and watercourses or the benefits derived therefrom.

Exclusions from the above Town regulations in §78-3B include emergency work which is necessary to protect public health and safety or to prevent damage to property activities, and is performed within proper scope and with proper notification to the Town. Also excluded are activities related to decorative landscaping; including the addition of trees and plants, or the trimming, pruning, and bracing of any tree.

Town and State regulations governing activities in and near designated wetlands are very similar. Disturbances of a State-regulated wetland within 100' of such wetland boundary are subject to NYSDEC regulations when they include activities regulated by that authority.

NYCDEP Regulations

The New York City Department of Environmental Protection (NYCDEP) also lists regulated activities and permit requirements applicable to work conducted in any controlled area related to wetlands or watercourses occurring within the watershed of the City's water supply. Watershed activities that meet any of the following regulatory criteria require NYCDEP to review and approve a project's application that is submitted by the party seeking to conduct any of the listed activities. This agency's Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources[1] apply to each of the following activities:

1. Residential septic systems;
2. Intermediate-sized wastewater treatment systems;
3. Wastewater treatment plants;
4. Construction of a paved driveway or other impervious surfaces adjacent to a stream;
5. Crossing, diverting or piping a stream;
6. Construction of a house or other structure adjacent to a stream or watercourse;
7. Connection to an existing sewer system with a service lateral;
8. A land clearing or land grading project, involving two or more acres, located at least in part within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem or controlled lake or on a slope exceeding 15 percent;
9. Application and storage of fertilizers;
10. Discharge from agricultural activities;
11. Siting of junkyards or solid waste management facilities; and
12. Discharge or storage of other hazardous materials, petroleum products, pesticides, highway maintenance materials, or other sewage.

9.2 Existing Conditions – Water Resources

Surface water resources within the ±153-acre site from which the Project site would be subdivided include two streams (one identified a seasonally dry watercourse), and three small ponds of 0.24

[1] NYCDEP. 2019. Rules and Regulations for the Protection from Contamination, Degradation and pollution of the New York City Water Supply and its Sources. Final Regulations. November 29, 2019.

acre, 0.08 acre, and 0.27 acre in size; Wetland A, Wetland C and Wetland D, respectively, as shown on Figure 9-1 (Drawing WV-1, Wetland Validation Map). Regulatory controlled areas surrounding these resources, shown in Figure 9-2, are delineated on the survey mapping used for the proposed project drawings.

The generally elevated topographic position of the site in relation to its surroundings causes the property to receive water inputs primarily from localized rainfall onto the site. Runoff from I-84 flows overland via drainage swales and culverts into NYSDEC wetland LC-28 at a point south of the project site.

Figure 9-3 shows mapped surface water resources within one-quarter mile of the site from National Wetlands Inventory mapping.

The highest elevations of the site are at the designated ridgeline area in the northeast region of the property and a downgradient bench generally in the center of the northern parcel. This highest terrain has sloping grades to the south and the north. Drainage from the property follows these grades as either overland sheet flow, subsurface flows, or surface streams and defined watercourses. Flow to the south enters NYSDEC Freshwater Wetland LC-28 (a NYSDEC Class II wetland) and exits as a NYSDEC regulated stream (NYSDEC Regulation No. 864-194, a Class C stream). Flow to the north includes an intermittent stream which departs, off-site, into a stream NYSDEC Regulation No. 864-196, a Class C stream which runs through portions of the off-site NYSDEC Freshwater Wetland LC-18 (a NYSDEC Class I wetland).

The streams that exit NYSDEC Wetland LC-28 and LC-18 are minor tributaries to the Middle Branch of the Croton River.

The Town has two large aquifers that have been identified and described in the Town's Comprehensive Plan[2]. These are located approximately 2.25 miles (the aquifer southwest of Bog Brook Reservoir), and 4 miles (the aquifer around Haines Pond) distant from the Project site, and these aquifer resources are therefore unlikely to be affected either by rainwater infiltration or any surface water discharges that occur at the Project site.

9.3 Existing Conditions – Wetlands

Wetlands on the two-lot site were delineated by Ecological Analysis (EA) on November 26-27, 2019, based on the criteria and definitions appropriate to each regulatory jurisdiction. Seven wetland areas are present on the site, each of which is protected by Town of Southeast regulations, and six of which are protected by US Army Corps of Engineers (USACE) regulations. The one of the seven site wetlands which is not regulated by the USACE is a small (372 square feet) perennial pond (Wetland A) which is an isolated surface water feature.

One of the wetlands (encompassing the areas of Wetlands B, C, D, and F) is large enough to also be regulated by the NYSDEC (NYSDEC Freshwater Wetland LC-28). All of the NYSDEC regulated wetlands received a signed 5-year validation by the NYSDEC on July 29, 2020 (Drawing No. WV-1 Wetland Validation Map). The two smallest of the wetland areas are small stream-adjacent features. One of these, Wetland E, is hydrologically connected to Wetland LC-28 via the stream draining across the western portion of the property, while the other, Wetland G, is near

[2] AKRF. 2014. Town of Southeast Comprehensive Plan Update. August 21, 2014.

the northern border of the property and outflows into a separate drainage system (NYSDEC Wetland LC-18) located off of the property to the north.

A representative of NYCDEP visited the site and validated the watercourses and wetland delineations.

Controlled areas of upland that are present around the site's wetlands are protected under the NYSDEC and Town regulations.[3] NYSDEC and NYCDEP authorities typically extend wetland buffers horizontally for 100 feet from the line of a wetland delineation. Town of Southeast extends wetland buffers for variable distances, of from 100 feet to 200 feet, from the line of a wetland delineation, based on Hydrologic Soil Groups and slope percentage. The function of these buffer areas is to lessen any adverse impacts to the wetland proper related to human generated disturbances.

The wetland buffers around all of the site wetlands are densely canopied, upland, forested/brushy habitats, dominated by red maple, spicebush, highbush blueberry, multiflora rose, and autumn olive. Understory herbs, sedges, and ferns most frequently recorded in the areas surrounding the wetland borders include sensitive and cinnamon ferns, skunk cabbage, greater bladder and tussock sedges, phragmites, northern bugleweed, nodding beggarticks, and water plantain.

Figure 9-2 shows the general extent and location of the wetland buffers (controlled areas) around each of the site wetlands. Wetland buffers are protected by regulatory agencies as these areas provide several biological and physical functions that together act to protect the integrity of wetlands in natural conditions and from manmade alterations to the landscape. These functions include the protection of wildlife habitat, the reduction of inputs of nutrient, toxins, and sediments into a wetland, and the minimization of hydrological alterations to the seasonal fluctuations of ground and surface water inflow to a wetland. Table 9-1 presents the characteristics of the site wetland buffers depicted on Figure 9-2.

[3] Controlled areas adjacent to designated wetlands are variously referred to as controlled area, adjacent area, buffer area, or limiting distance.

Table 9-1
Wetland Buffer Types

Location/ Designation	Type of Cover in Buffer	Percent Cover by Type*	Wetland Protection Function		
			Wildlife Habitats	Pollutant Reduction	Hydrological Cycles
Wetlands					
Wetland A	woodland	100%	✓	✓	✓
Wetland B	woodland	100%	✓	✓	✓
Wetland C & D	woodland	90%	✓	✓	✓
Wetland C & D	Pugsley Road	10%	no wetland function		
Wetland E	woodland	100%	✓	✓	✓
Wetland G	woodland	100%	✓	✓	✓
Wetland LC-18 (offsite)	woodland and Fields Corner Road	100%	✓	✓	✓
Watercourses					
WC-1	woodland	90%	✓	✓	✓
WC-1	vegetation dump	10%	no wetland function		
WC-2	woodland	100%	✓	✓	✓
WC-3	woodland	100%	✓	✓	✓
WC-4	woodland	100%	✓	✓	✓
NOTES:					
* Percent type refers to area shown in Figure 9-2.					
The term buffer refers to: Town regulated wetland Controlled Area, NYSDEC regulated Adjacent Area, NYCDEP regulated Limiting Area.					

The site was reviewed for the existence of vernal pools by EA on March 30, 2021, and no vernal pools were identified.

Federal Emergency Management Agency (FEMA) mapping accessed on March 2, 2021, shows that the Project is located within an Area of Minimal Flood Hazard, and therefore no flooding issues are expected to affect the Project. The Project site is not located within, or near to, any FEMA-mapped 100-year floodplain.

9.4 Future Without the Project

Unless otherwise developed, the entirety of the 153.8± acres of the two undivided parcels would remain in their wooded condition throughout the upland and wetland terrains. The existing watersheds with their included streams, watercourses, and wetlands, would remain undisturbed by Project improvements. Drainage patterns across the site would remain an unaltered feature

of this portion of the Middle Branch of the Croton River watershed. Ownership of the land would be retained by the Town.

9.5 Potential Impacts

Potential impacts to the on- and off-site water resources and wetlands that might be associated with the development and the operational activities of the Project that must be ameliorated by the project design include: sedimentation during construction, release of chemical pollutants from construction activities (e.g. fuels and lubricants), post-development increases in pollutant loading in stormwater, post-development flooding from increased peak rates of stormwater discharge, and bed and bank erosion in receiving watercourses resulting from increased stormwater discharge velocities.

Without appropriate mitigation incorporated into the proposed action, disturbance of the project site would have the potential to increase the volume and velocity of stormwater following the clearing and conversion of the present land cover into impervious surfaces and landscaped areas. If not controlled, these activities might lead to accelerated erosion and sedimentation both during and after construction of the Project. Sedimentation within the receiving streams, ponds, and wetlands, if not mitigated, could result in nutrient enrichment, increased turbidity, increased transport of pollutants, shielding of pathogens from disinfection processes, and clogging of the gills of aquatic organisms.

The basin of the Middle Branch Reservoir in New York City's drinking supply watershed is designated as phosphorus-restricted by the NYCDEP, and therefore stormwater controls must be appropriate to reduce this nutrient to permitted concentrations through the application of effective stormwater control practices, including the capture and removal of sediment and debris from detention basins and the maintenance of vegetation within and around the basins in order to further increase the ability of the stormwater system to reduce the movement of phosphorous into downstream reservoirs.

The Project improvements would disturb approximately 49 acres of land, primarily within upland portions of the site, while avoiding direct impacts to the site wetlands and watercourses. Table 9-2 lists the sizes of upland areas within regulated wetland buffers that would be disturbed by the proposal, by jurisdiction.

Table 9-2
Wetland Buffer Disturbance

Location/ Designation	Type of Cover in Buffer	Percent Cover by Type*	Disturbed Town Controlled Area (ac)	Disturbed NYSDEC Adjacent Area (ac)	Disturbed NYCDEP Limiting Area (ac)
Wetlands					
Wetland A	woodland	100%	0.04		
Wetland B	woodland	100%	0.22		
Wetland C & D	woodland	90%	2.46	0.25	0.25
Wetland C & D	Pugsley Road	10%	0.51	0.28	0.16
Wetland E	woodland	100%	0.43		
Wetland G	woodland	100%	0.30		0.03
Wetland LC-18 (offsite)	woodland and Fields Corner Road	100%	0.15		
Watercourses					
WC-1	woodland	90%	0.37		0.37
WC-1	vegetation dump	10%			
WC-2	woodland	100%	0.66		0.24
WC-3	woodland	100%			
WC-4	woodland	100%			0.03
		Totals:	5.14	0.53	1.08
NOTES:					
* Percent type refers to area shown in Figure 9-2.					
The term buffer refers to: Town regulated wetland Controlled Area, NYSDEC regulated Adjacent Area, NYCDEP regulated Limiting Area.					
Some areas listed are counted under more than one regulatory jurisdiction.					

Direct disturbance to wetlands on the property would be avoided in the plans proposed for this Project, however the Project would encroach into some Town Wetland Controlled Areas, NYSDEC Wetland Buffer areas, and/or NYCDEP Watercourse Limiting Areas in several locations, as shown on drawings SP-1 through SP-4 of the accompanying engineering plans (DEIS Appendix M). These specific impacts would occur within the Controlled Areas surrounding the onsite wetlands and watercourses in the following locations:

For the Project development proposed within Lot 10 (north lot), the disturbances are:

1. A corner of the synthetic turf multi-sport field and the associated retaining wall would encroach into the 166-foot Town of Southeast Wetland Controlled Area;
2. Approximately half of the parking lot associated with the main building, along with the western-most entrance from Zimmer Road and associated welcome sign, would encroach into either the 166-foot or 200-foot Town of Southeast Wetland Controlled Area;

3. A portion of the stormwater detention basin adjacent to the western-most entrance from Zimmer Road would encroach into the 166-foot Town of Southeast Wetland Controlled Area; and an associated drainage line would cross through this Controlled Area;
4. A portion of the sewer main would cross through the 200-foot Town of Southeast Wetland Controlled Area;
5. A directional-drilled sewer force main would cross through the 100-foot Town of Southeast Watercourse Controlled Area and NYCDEP 100-foot Watercourse Limiting Distance.

For the Project development proposed within Lot 11 (south lot), the disturbances are:

1. The majority of the access road along with a portion of the concession/restroom building, a portion of the bleacher seats and associated retaining wall, a corner of the batting cages, and a small corner of the synthetic turf showcase baseball field would encroach into the 200-foot Town of Southeast Wetland Controlled Area;
2. Portions of the two stormwater basins would encroach into the 200-foot Town of Southeast Wetland Controlled Area and/or the 133-foot Town of Southeast Wetland Controlled Area, as well as the NYCDEP 100-foot Limiting Distance;
3. A drainage line running from Zimmer Road to the northern-most stormwater basin would cross through the 200-foot Town of Southeast Wetland Controlled Area, with a portion of it crossing the NYSDEC 100-foot Wetland Adjacent Area and the NYCDEP 100-foot Limiting Distance.

Approximately 10.7 acres of impervious surfaces would be created on the site, resulting in a localized increase in stormwater runoff from these surfaces. The majority of this stormwater runoff would be collected and directed into constructed drainage features that would flow into a system of stormwater management basins. Discharges from the basins would occur either as infiltration into the subsoils of the basins, or as surface discharges of treated stormwater into the site wetlands or watercourses.

Chapter 78 of Southeast Town Code seeks for provisions to be made by developers to mitigate the impairment of the hydrological benefits provided to the Town by its wetlands. These benefits, including the control of stormwater runoff and flooding, are provided by the storage capacity within wetlands and by the hydrologic adsorption functioning of their soils and vegetation. The Project utilizes infiltration basins that will allow for stormwater recharge into upland areas of the site while controlling the rate and volume of surface water discharges into the site streams and wetlands. The stormwater flow controls provided by the Project are designed to protect the hydrologic functioning of the site wetlands.

9.6 Mitigation Measures

Measures to mitigate the impacts of the Project on the water resources and wetlands within and in the vicinity of the site include the following: no direct disturbances to wetlands or watercourses have been proposed; land grading operations will be phased; the creation of impervious surfaces has been minimized; and rainwater infiltration practices will be utilized to reduce the volume of surface stormwater runoff exiting the site.

In order to best maintain pre-development hydrologic characteristics within the New York City water supply watershed, NYCDEP encourages the use of infiltration practices “to minimize loss

of annual recharge to groundwater by maximizing the use of stormwater infiltration practices where suitable soil conditions exist". Consistent with this standard of the NYCDEP Rules and Regulations, infiltration practices have been proposed for the treatment of stormwater runoff from the proposed impervious surfaces of the Project. On-site soil testing was witnessed by NYCDEP to verify that the soils in the location of the proposed infiltration basins are adequate to support the design requirements for infiltration practices in accordance with the New York State Stormwater Management Design Manual (*Design Manual*)[4].

Included with this document, as Appendix E, is the site-specific Preliminary Stormwater Management and Pollution Prevention Plan[5] (SWPPP) prepared by the project engineer. The stormwater management system for the proposed project has been designed to meet the requirements of local, regional, and state stormwater ordinances and guidelines, including but not limited to those of the Town of Southeast, the NYSDEC, and the NYCDEP. The SWPPP defines measures and procedures to be implemented so as to ensure compliance with prevailing discharge standards. Such measures, where necessary, include conveyance systems, retention basins, detention ponds and flow control devices. All proposed measures and procedures will be selected in accordance with the current *Design Manual* standards.

The SWPPP design process evaluated existing (pre-construction) and post-construction stormwater runoff characteristics, including existing and post-development peak rates of stormwater discharge for the 1-, 10-, 25- and 100-year 24-hour rainfall events. This analysis was the basis for the assessment of potential impacts on surface water resources anticipated from the proposed action and was the basis for developing the mitigation measures proposed as part of the project. A description of each such drainage basin is provided in Appendix E. The descriptions include specific characteristics (e.g., size and composition) of all drainage structures and a summary of the path of flow from the project to receiving water bodies. The results of the study are summarized below and the supporting calculations are presented in the SWPPP.

SWPPP's are dynamic plans in that they are often updated in response to changing site conditions. Erosion and sediment control measures will be reviewed twice weekly for appropriateness and efficacy. Additional measures, that may not be included in the preliminary SWPPP, can be called for in the field to address specific developing concerns.

The *Design Manual* was prepared by the NYSDEC to provide standards to applicants for the design of stormwater management practices (SMPs) that would protect the waters of the State of New York from the impacts of urban stormwater runoff. The current (January, 2015) version of this manual includes the incorporation of Green Infrastructure practices and enhanced phosphorus removal standards for projects located within the East of the Hudson Watershed. The *Design Manual* was used to analyze pre- and post-development runoff quality and to design, select, and locate the treatment methods proposed for the Project. The project specific preliminary stormwater management plan is included in the engineering plans that accompany this document.

The following codes/regulations from several authorities have been used to design the SWPPP:

- NYSDEC: Phase II SPDES General Permit for Stormwater Discharges from Construction Activities, General Permit GP-0-20-001;
- NYSDEC: Stormwater Management Design Manual;

[4] NYSDEC. 2015. New York State Stormwater Management Design Manual. www.dec.ny.gov/chemical/29072.html

[5] Insite Engineering, Surveying & Landscape Architecture, P.C. Preliminary Stormwater Pollution Prevention Plan

- NYSDEC: Standards and Specifications for Erosion and Sediment Control;
- NYCDEP: Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and its Sources (Section 18-39 of the Watershed Regulations);
- Town of Southeast Town Code, Chapter 119: Stormwater Management and Erosion and Sediment Control.

Stormwater runoff across the project site generally flows from north to south from the protected ridgeline area to the NYSDEC wetland, with a smaller volume of stormwater runoff that leaving the project site across the northern property line. This existing pattern of stormwater runoff was utilized to both qualitatively and quantitatively analyze the stormwater runoff treatment measures and replicate the natural systems on the project site. The USDA hydrologic soils groups (HSGs) present on the Project grounds consist of "B", "C", and "D". HSGs are identified according to their water infiltration and transmission rate (i.e. their rainwater runoff potential when thoroughly wet), and these three HSGs include those soils that have moderately low runoff potential (HSG-B), to moderately high runoff potential (HSG-C), to high runoff potential (HSG-D).

Stormwater runoff will be captured and treated in multiple SMPs across the project site. Pretreatment for the proposed SMPs shall be provided either through the use of dry sedimentation basins or by the use of hydrodynamic separators upstream of SMPs. Flow splitters will be included upstream of infiltration basins to send the water quality volume to the downstream SMP while bypassing excess volumes generated by larger storms. The SMPs proposed are infiltration basins design to meet the requirements of the *Design Manual*. These requirements are intended to replicate pre-development hydrology to the maximum extent practicable through the implementation of infiltration practices.

The construction stage of the Project will be phased to limit the extent of exposed soils present on site at one time, in conformance with General Permit GP-0-20-001. Due to the size of some project elements --- for example the baseball clover covers about 10 acres that would need to be built in one continuous operation -- it is possible that a waiver may be requested to allow defined areas of disturbance to exceed five (5) acres at one time, provided there are provisions made for erosion and sediment control to mitigate the larger work area in accordance with such waiver.

Temporary erosion and sediment control facilities would be installed and maintained throughout all construction phases to reduce the impacts of sediments and siltation within the water features of this and off-site properties. These measures would include, but not necessarily be limited to:

- Stabilized construction entrances;
- Silt fence and/or haybale barriers;
- Storm drain inlet protection;
- Temporary sediment traps;
- Temporary soil stabilization by seeding and mulching;
- Temporary seed and mulch shall be applied to idle areas of exposed soil.

A description of the proposed permanent erosion and sediment control facilities is provided in Appendix E. In general, permanent erosion and sediment control will be accomplished by diverting stormwater runoff from steep slopes, controlling/reducing stormwater runoff velocities and volumes, and final surface stabilization by the site's structural and landscaping features. Landscaped areas and seeded lawn areas control stormwater runoff by preventing soil erosion,

reducing runoff volumes and velocities, and by providing a filter medium to settle out some of the entrained particulates in the runoff. Permanent seeding should optimally be undertaken in the spring from March 21st through May 20th and in late summer from August 15th to October 15th. All of the permanent facilities would be designed to be relatively maintenance free requiring only periodic scheduled inspections. The owner will provide maintenance for all the permanent erosion and sediment control facilities.

The discharge end of all piped drainage systems will be provided with riprap rock outlet protection aprons. These will be sized in accordance with the New York State Standards and Specifications for Erosion and Sediment Control[6] (referenced as the "Blue Book"). Rock outlet protection acts to reduce the depth, velocity, and energy of water, such that discharging flows will not erode the receiving downstream reach.

Other than the buildings and paved surfaces, disturbed surfaces will be stabilized with vegetation within 14 days of final grading. Permanent seed mix and mulch shall be applied to idle areas to minimize the amount of exposed soil, in accordance with the Blue Book. Application rates for the seed and mulch will be specified in the erosion and sediment control drawings to be prepared for this project.

Construction phase details associated with the implementation and maintenance of the proposed stormwater facilities and erosion control measures will be specified in the SWPPP prepared for this project.. The erosion control plan will include associated details and notes to aid the contractor in implementing the plan. During construction, a Construction Site Log Book (Log Book) is required to be kept per NYSDEC SPDES General Permit GP-0-20-001. Erosion and sediment control inspections are required to be conducted under coverage of the SPDES permit (at a minimum of twice weekly), and an updated Log Book and a copy of the SWPPP is required to be kept on site for the duration of the construction activities. The required Log Book format is given in the appendices of the Blue Book.

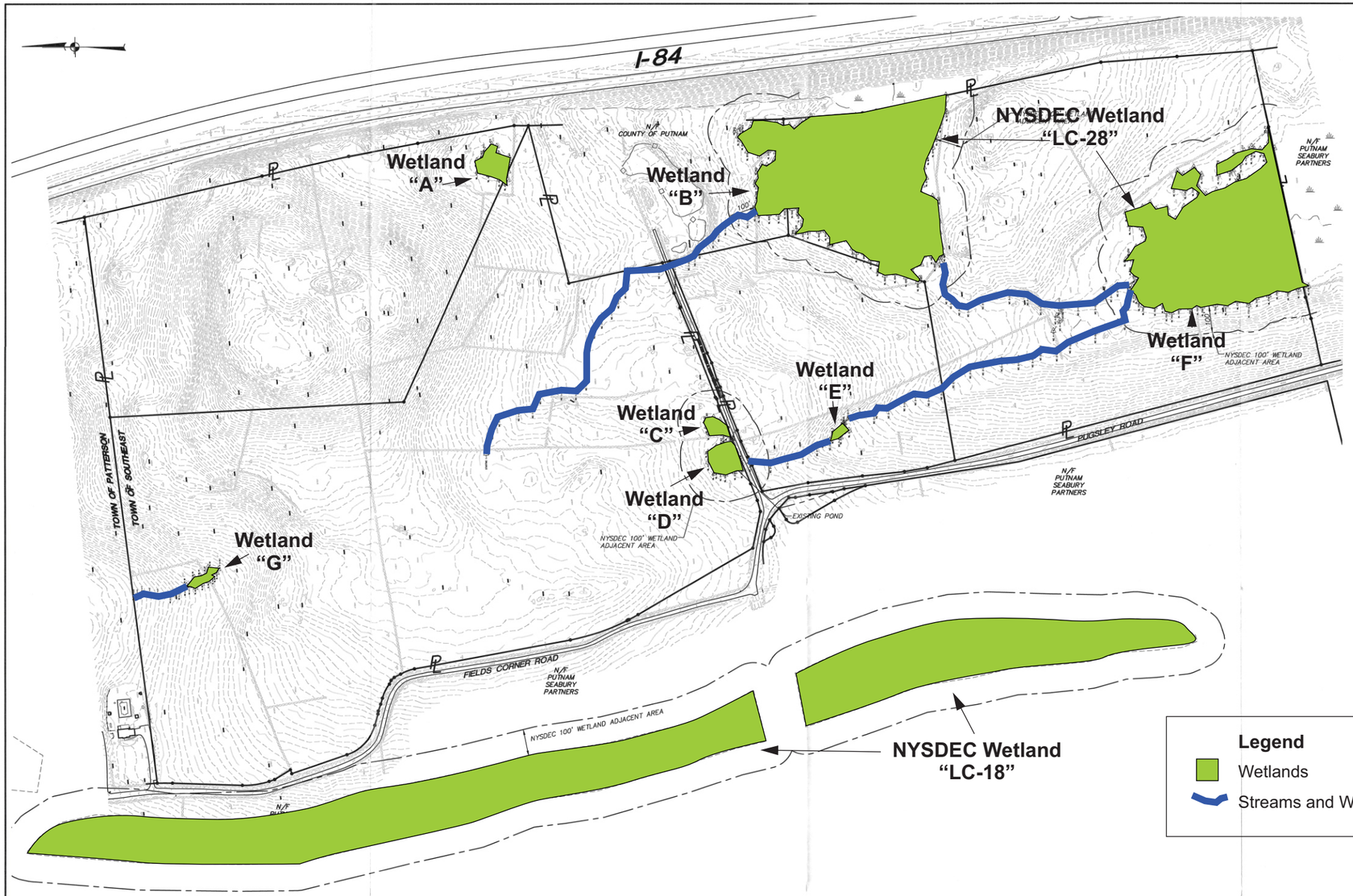
Although it is not anticipated that any hazardous waste materials will result from construction, protocols for handling of any hazardous waste materials will be including in the SWPPP. Such waste shall be disposed of in accordance with federal, state, and local regulations. No hazardous waste shall be disposed of on-site. Hazardous waste materials shall be stored in appropriate and clearly marked containers and segregated from the other non-waste materials. All hazardous waste shall be stored in a structurally sound and sealed shipping containers located in the staging areas.

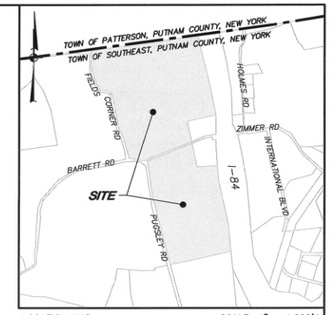
Throughout the construction of the project several types of vehicles and equipment will be used onsite. Fueling of the equipment shall occur within the limits of the construction staging area. All equipment fluids generated from minor maintenance activities shall be disposed of into designated drums and stored in accordance with other hazardous waste storage in the staging areas. Ample supplies of absorbent, spill-cleanup materials, and spill kits shall be located in the construction staging area. All spills shall be cleaned up immediately upon discovery. Any spill large enough to discharge to surface water will be immediately reported to the local fire/police departments, NYCDEP, NYSDEC, and the National Response Center (1-800-424-8802).

[6] Lake Jr, E. W, et al. 2016. New York State Standards and Specifications for Erosion and Sediment Control. www.dec.ny.gov/chemical/29066.html

Portable toilet facilities shall be provided on site during the entire length of construction. The sanitary facilities shall be located in the project staging area, or in an alternate area away from the construction activities on the site. The portable toilets shall be inspected weekly for evidence of leaking holding tanks.

The property owner will be responsible for the long-term maintenance of the erosion control and stormwater facilities, including the following measures. Inspections should be conducted of the infiltration systems on a semi-annually basis, as well as after major storm events. Each Spring, the paved areas should be cleaned to remove the winter's accumulation of traction sand, and all catch basin, sumps, and pipes should be checked for debris or blockages and cleaned as required. During the annual cleaning process, the catch basins and pipes should be inspected for structural integrity and overall condition, with repairs and/or replacement made as required in order to maintain the functionality of the stormwater control system.





LOCATION MAP SCALE: 1" = 1,000'±

OWNER:
TOWN OF SOUTHEAST
1360 ROUTE 22
BREWSTER, NY 10509

APPLICANT:
PROSWING SPORTS REALTY, INC.
14 AUTUMN RIDGE ROAD
SOUTH SALEM, NY 10590

SITE DATA:
Zone: RC
Total Acreage: 93.0 AC (45.-1-10), 60.5 AC (45.-1-11)
Tax Map No.: 45.-1-10, 45.-1-11

GENERAL NOTES:

1. Property lines shown taken from map entitled "Map of Alienation Parcels Prepared for Prosswing..." dated Mach 6, 2020 prepared by Insite Engineering, Surveying, and Landscape Architecture P.C.
2. Existing topography and site features shown hereon derived from Aerial Photogrammetry, created from a drawing entitled "Pugsley Road", by Geomaps International photo dated November 30, 2019 and obtained January 13, 2020. Elevations show hereon are in vertical datum NAVD 88. The contour interval is 2'.
3. Wetlands shown hereon were flagged by Ecological Analysis on November 27, 2019 and field located by Insite Engineering, Surveying, and Landscape Architecture P.C. on December 18, 2019.
4. Wetland flag "WL F72-A" was modified in the field by Sarah Powliczak of the NYSDEC on July 9, 2020. This drawing reflects the modified location of the wetland flag.

LEGEND

- EXISTING PROPERTY LINE
- 100' YARD SETBACK
- EXISTING APPROXIMATE EDGE OF ROAD
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING WATERCOURSE
- EXISTING WETLAND SYMBOL
- EXISTING WETLAND LIMIT LINE
- NYSDEC 100' WETLAND ADJACENT AREA

Legend
- Wetlands
- Streams and Watercourses

GRAPHIC SCALE
0 75 150 300
(IN FEET)
1 inch = 150 ft.

NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION

The freshwater wetland boundary as represented on these plans accurately depicts the limits of Freshwater Wetland LC-28 as delineated by Ecological Analysis on November 27, 2019.

DEC Staff: Sarah Powliczak 07/29/2020 Surveyor/Engineer:

Date Valid: 7/29/2025 Expiration Date: 7/29/2025 SEAL

JOHN M. WATSON NEW YORK LICENSED PROFESSIONAL ENGINEER No. 77351

Wetland boundary delineations as validated by the New York State Department of Environmental Conservation remain valid for five (5) years unless existing exempt activities, area hydrology, or land use practices change (e.g., agricultural to residential). After five (5) years the boundary must be revalidated by DEC staff. Revalidation may include a new delineation and survey of the wetland boundary.

Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or within 100 feet of the wetland boundary as depicted on this plan requires a permit from the NYS Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.

Figure 9-1: Site Area Wetlands & Watercourses Map
Brewster Yards
160 & 132 Pugsley Road, (T) Southeast, Putnam County, NY

Ecological Analysis

Source: Insite Engineering, Surveying & Landscape Architecture, P.C. 7-06-21
Scale: Graphic **Date:** 01/29/22

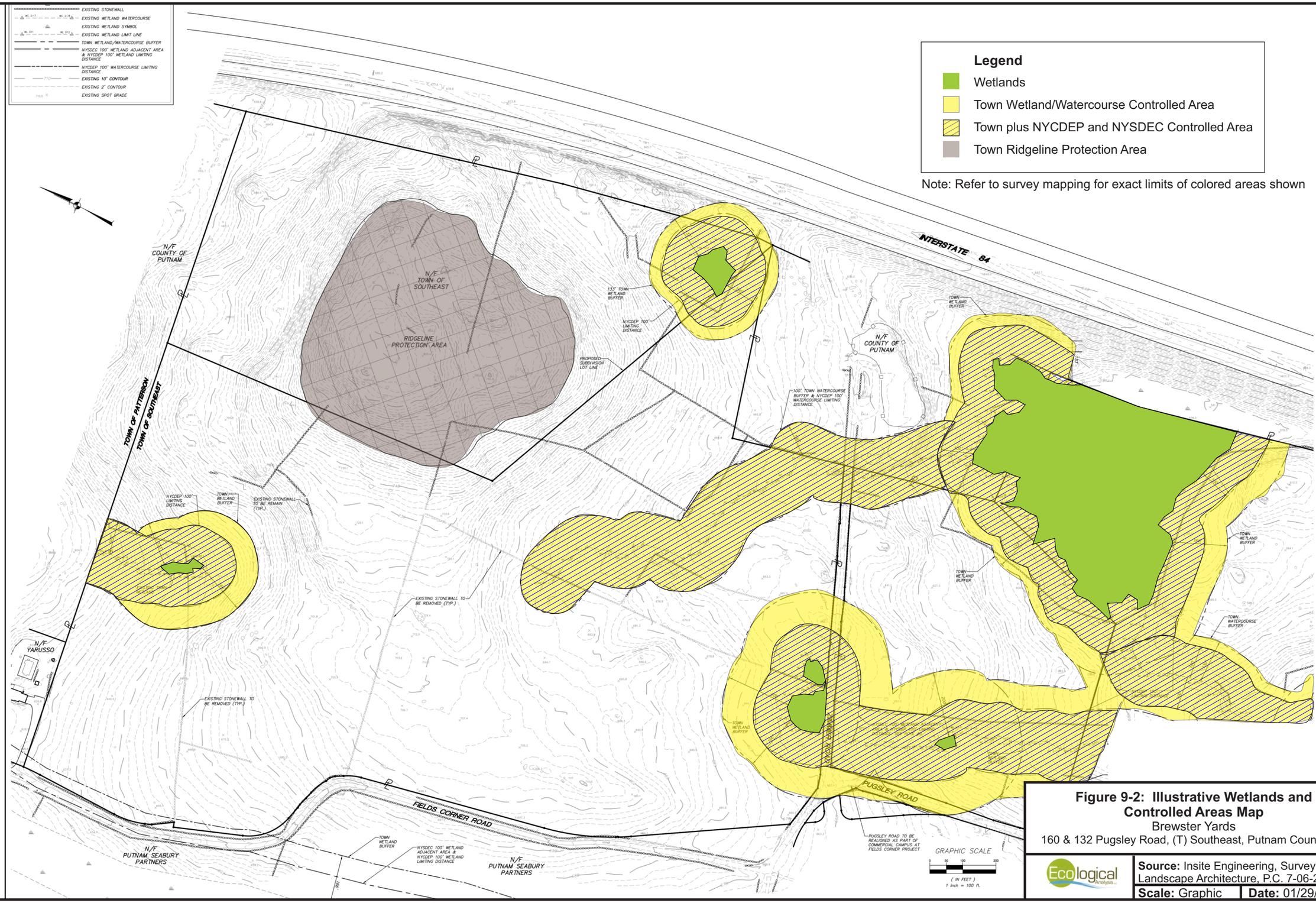
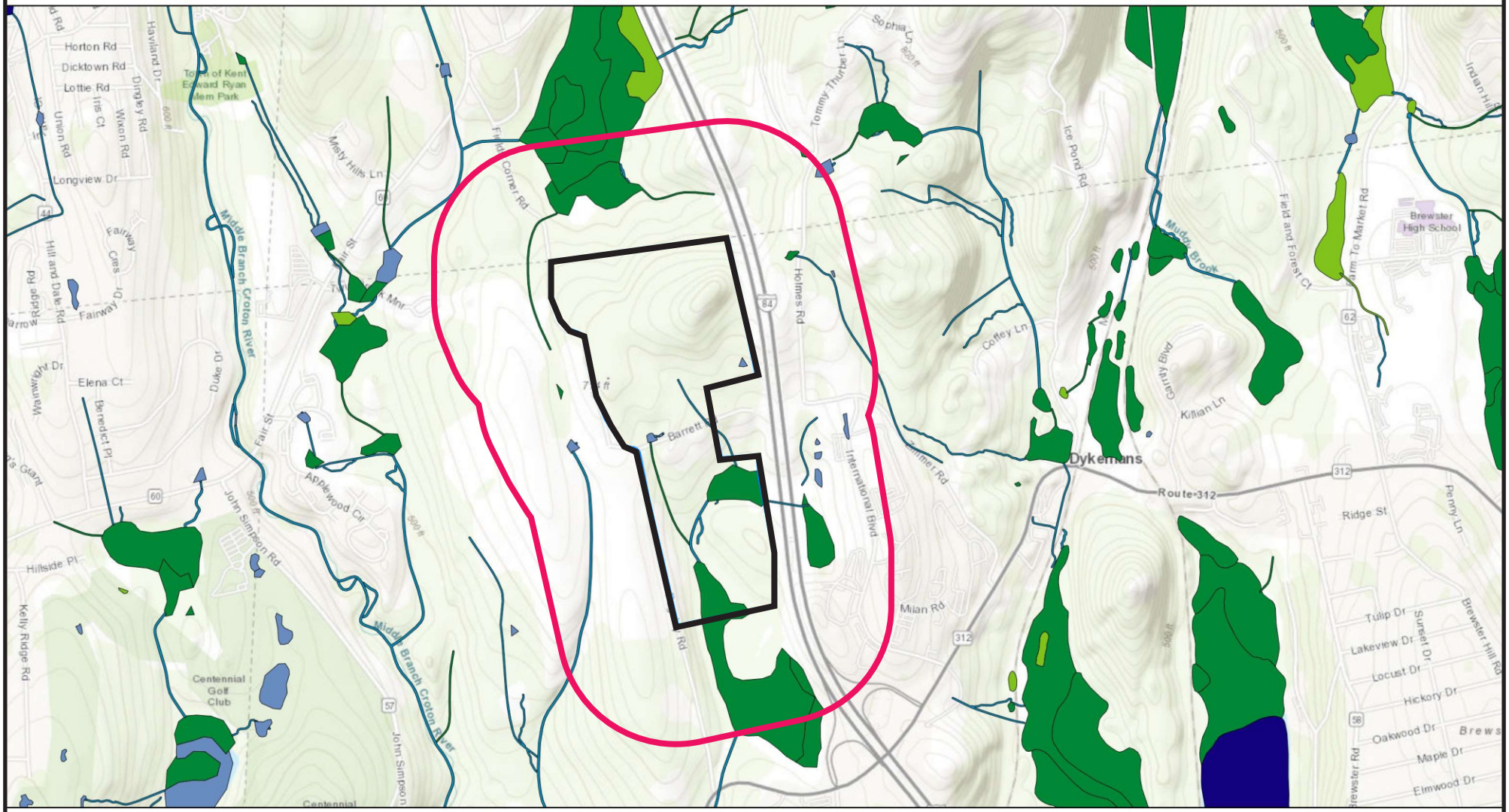


Figure 9-2: Illustrative Wetlands and Controlled Areas Map
Brewster Yards
160 & 132 Pugsley Road, (T) Southeast, Putnam County, NY

Ecological Analysis

Source: Insite Engineering, Surveying & Landscape Architecture, P.C. 7-06-21
Scale: Graphic | **Date:** 01/29/22



Legend:

- Site
- 1/4 mi offset

Wetlands

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

1:18,056

0 0.15 0.3 0.6 mi

Figure 9-3: NWI Features Map (National Wetlands Inventory)

Brewster Yards

160 & 132 Pugsley Road, (T) Southeast, Putnam County, NY

Ecological Analysis

Source: US Fish and Wildlife Service

Scale: Graphic | **Date:** 01/26/22