Wetland Delineation Report

For

Route 4 over Palisade Avenue, CSX Railroad, and Windsor Road Bridge Replacement

210 Shepard Avenue
Teaneck, NJ
B: 5608, L: 10

May 2025

SUBMITTED TO:

New Jersey Department of Transportation
1035 Parkway Avenue
Trenton, New Jersey 08625

PREPARED BY:

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1. Introduction

This report describes the wetland delineation conducted on May 15, 2025 for the proposed Green Acres mitigation replacement parcel located at 210 Shepard Avenue, Teaneck, New Jersey (Block 5608, Lot 10). The delineation identified two (2) wetlands that are regulated under the New Jersey Department of Environmental Protection (NJDEP) Freshwater Wetland Protection Act Rules (N.J.A.C. 7:7A). One (1) drainage ditch feature was observed as well. Refer to **Figure 1** of **Appendix A** for the project location.

2. Project Description

A wooded property located at 210 Shepard Avenue (Block 5608, Lot 10) in Teaneck, New Jersey has been identified as a possible replacement parcel for Green Acres mitigation related to the Route 4 over Palisade Avenue, CSX Railroad, and Windsor Road Bridge Replacement project and the associated impacts to Green Acres encumbered properties. A wetland delineation was conducted on the subject property to determine its feasibility for use by the public as protected green space.

3. Wetlands Delineation Methodology

A wetland delineation was performed according to the Routine Onsite Determination Method as detailed in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (January 1989). Use of this method is required by the NJDEP Division of Land Resource Protection. In accordance with this methodology, the following three parameters are characteristic of wetlands:

1. The land is dominated by hydrophytes;
2. The substrate is undrained hydric soil; and
3. The substrate is saturated with groundwater or flooded for a significant part of the growing season each year.

Positive indicators of the above listed parameters are the basis for wetland identification. All three parameters must be present for an area to be identified as a wetland, unless abnormal or atypical conditions are determined to be present.

To delineate the jurisdictional wetland limits, a series of field observations were made to confirm the presence or absence of positive wetland indicators. First, the dominant vegetation was identified and a determination as to the presence of hydrophytic vegetation was made. If a hydrophytic vegetation community that supported a dominance of facultative, facultative wetland, or obligate plant species was identified, a soil auger was used to take samples to identify the presence of hydric soils. Last, the area was investigated for indicators of wetland hydrology.

3.1. Desktop Review

Prior to the wetland delineation, various publicly available data sources were reviewed to determine the presence of potential wetland and water resources. Geospatial data from the NJDEP Land Use/Land Cover Wetlands data (2020), United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI), and the United States Environmental Protection Agency (USEPA) Priority Wetlands for the State of New Jersey were reviewed to identify potential wetlands within and adjacent to the subject property

limits. The Surface Water Quality Classification of New Jersey database and USGS StreamStats web application was reviewed to evaluate the area for water resources and drainage areas.

The NJDEP Land Use/Land Cover geospatial data identified no wetlands within the property subject to wetland delineation. According to the NJDEP, land use and land cover at the subject property is identified as deciduous forest with urban residential land use along the outside edges of the parcel. In addition, no wetlands were mapped within the subject property according to the USFWS NWI Wetland Maps, and the subject property is not located within a USEPA Priority Wetland area. According to both NJDEP and USFWS NWI, the closest mapped wetlands to the subject property are approximately 1,000 feet south within Argonne Park. Refer to **Figure 2** in **Appendix A** for mapped wetlands within the vicinity of the subject property.

According to the NJDEP Surface Water Quality Classification and USFWS NWI mapping, no streams are present within the subject property. However, the USGS StreamStats application identifies stream points within the eastern side of the property.

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) database was examined to identify any listed hydric soils within the subject property. Project area soils are summarized in **Table 1** below. Refer to **Figure 3** of **Appendix A** for the SSURGO Soils Map.

Table 1: USDA NRCS SSURGO Soils within the Project Area.

Map Unit Symbol	Map Unit Name	Hydric Soil Rating
DuoB	Dunellen Loam, 3 to 8 percent slopes	Nonhydric
DuuB	Dunellen-Urban land complex, 3 to 8 percent slopes	Nonhydric
DuuC	Dunellen-Urban land complex, 8 to 15 percent slopes	Nonhydric
UdwuB	Udorthents, wet substratum-Urban land complex	Partially Hydric (2%)

4. Wetland Delineation Results

Two wetlands were identified within the proposed mitigation parcel at 210 Shepard Avenue. The wetlands contained similar vegetation and wetland characteristics and were separated by two berms and a drainage ditch. Refer to **Figure 4** in **Appendix A** for a delineated features map.

4.1. Wetlands

Wetland A

This wetland is located in a slight depression within the proposed mitigation parcel. It is surrounded by a manmade berm to its east, toe-of-slope to the roadway on its northern side, and slopes up the surrounding uplands to its southern and western sides.

Vegetation within this wetland (Wetland A) is dominated by red maple (*Acer rubrum*, FAC) and American elm (*Ulmus americana*, FACW) in the overstory, Northern spicebush (*Lindera benzoin*, FACW), Japanese barberry (*Berberis thunbergii*, FACU) skunk cabbage (*Symplocarpus foetidus*, OBL), and awl-fruited sedge (*Carex stipata*, OBL) in the understory. Hydrologic indicators within the wetland were particularly evident with surface water, a high water table at approximately 12 inches below the surface, saturation to the surface, and water-stained leaves. In addition, the wetland was FAC-neutral, a secondary indicator of wetland hydrology. Soils consisted of a thick dark, loamy layer underlain by a sandy layer containing redoximorphic features, meeting hydric soil indicator depleted below dark surface (A11).

The uplands adjacent to Wetland A were visually observed with a strong change in the vegetative community and a lack of all hydrologic indicators. The overstory of the wetland is dominated by Norway maple (*Acer platanoides*, UPL) and sweetgum (*Liquidambar styraciflua*, FAC) trees as well as smooth blackhaw (*Viburnum prunifolium*, FACU), bitternut hickory (*Carya cordiformis*, FAC) saplings. The understory is dominated by Northern spicebush (*Lindera benzoin*, FACW) shrub and garlic mustard (*Alliaria petiolata*, FACU), and white snakeroot (*Ageratina altissima*, FACU). Upland soils were a very dark gray down to a depth of 15 inches, at which a brown sandy layer extended beneath. No indicators of hydric soil were present.

Wetland B

Wetland B is located along the toe of slope of existing residential properties and roadway to the north and east, a manmade berm to the west, and slopes up the wooded uplands in the south. The wetland is bisected by a drainage feature that leads to a culvert under the intersection of Oak Street and Howland Avenue.

Hydrophytic vegetation is present throughout Wetland B, dominated by tree species red maple (*Acer rubrum*, FAC), American elm (*Ulmus americana*, FACW), and swamp white oak (*Quercus bicolor*, FACW). The understory is heavily dominated by skunk cabbage (*Symplocarpus foetidus*, OBL). Hydrologic indicators were similar to Wetland A with a high water table at 6 inches, saturation to the surface, and water-stained leaves. This wetland is also FAC-neutral. Soils had a thick dark, loamy/clayey layer down to approximately 9 inches, where a sandy layer with redoximorphic features is present, meeting hydric soil indicator depleted below dark surface (A11).

Upland B is taken in a wooded area between a residential lawn and Wetland B. The overstory is dominated by Norway maple (*Acer platanoides*, FAC), American elm (*Ulmus americana*, FACW), and white ash (*Fraxinus americana*, FACU), and the understory is dominated by garlic mustard (*Alliaria petiolata*, FACU). English ivy (*Hedera helix*, FACU) vines are scattered throughout the upland floor and around trees. Soils were very dark grey to dark brown and exhibited no signs of hydric soil indicators.

4.2. Drainage Features

Drainage Ditch C

Drainage Ditch C appears to be a manmade stormwater drainage ditch lined with two berms as it runs north to south between delineated wetlands A and B. At the southern end of Wetland A, it turns east towards Oak Street. The ditch is approximately 2 to 3 feet wide. Water was present at the time of the delineation within the ditch in the segment perpendicular to Oak Street, and the ditch is lined with rip rap as it leads to a culvert under Oak Street.

Refer to **Figure 4** in **Appendix A** for a delineated features map. Additionally refer to **Appendix B** for representative photos and **Appendix C** for the wetland determination data forms.

5. Wetland Resource Value Determination

Activities proposed within wetlands and their associated transition areas are regulated by the NJDEP Freshwater Wetland Protection Act Rules (N.J.A.C. 7:7A). As established at 7:7A-3.2(a), freshwater wetlands are divided into the following three resource value classifications:

N.J.A.C. 7:7A-3.2(a)…

1. *An exceptional resource value wetland is a freshwater wetland that discharges into FW-1 or FW-2 trout production water or their tributaries; is a present habitat for threatened and endangered species; or is a documented habitat for threatened or endangered species, and which remains suitable for breeding, resting, or feeding by these species during the normal period these species would use the habitat.*
2. *An ordinary resource value wetland is a freshwater wetland which is a drainage ditch; a swale; a detention facility created by humans in an area that was upland at the time the facility was created; or an isolated wetland smaller than 5,000 square feet and has certain land use (i.e., lawns, maintained landscaping, impervious surfaces, active railroad right-of-way, or graveled/stoned parking and roads) covering more than 50 percent of the area within 50 feet of the wetland boundary.*
3. *An intermediate resource value wetland is any freshwater wetland not defined as exceptional or ordinary.*

Exceptional resource value wetlands have a 150-foot wetland transition area, intermediate resource value wetlands have a 50-foot wetland transition area, and there is no wetland transition area associated with an ordinary resource value wetland or State Open Waters.

According to NJDEP Landscape Project 3.4, there are no threatened or endangered species nor habitat mapped within the subject property. Based on this criteria, it is anticipated that both Wetlands A & B are to be classified as intermediate resource value wetlands.

6. Regulated Waters

The NJDEP Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) establish jurisdiction over regulated waters and riparian zones. N.J.A.C. 7:13-2.2(a)1-4 states the following waters in New Jersey are not regulated:

1. *Any manmade canal;*
2. *In accordance with N.J.S.A. 58:16A-60, any coastal wetlands regulated under the Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.);*
3. *Any segment of water that has a drainage area of less than 50 acres, provided one or more of the following applies:*
    i. *The water has no discernible channel;*
    ii. *The water is confined within a lawfully existing, manmade conveyance structure or drainage feature, such as a pipe, culvert, ditch, channel, or basin (not including any water*

that historically possessed a naturally-occurring, discernible channel, which has been piped, culverted, ditched, or similarly modified); and/or

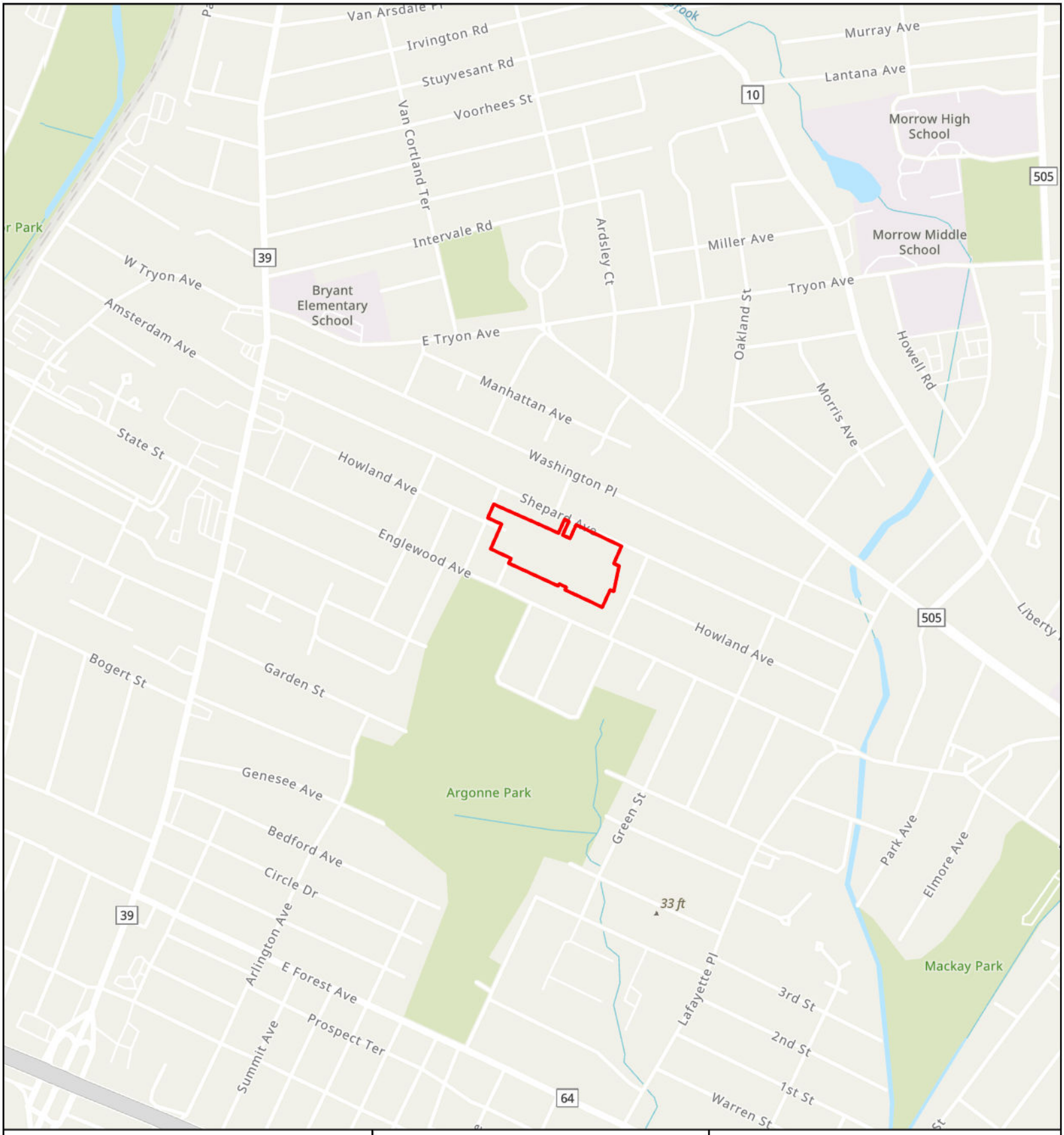
iii. *The water is not connected to a regulated water by a channel or pipe, such as an isolated pond or depression that has no outlet; and*

4. *Any water-filled depression created in dry land incidental to construction or remediation activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of "waters of the United States" in the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-1.4.*

No manmade canals, mapped coastal wetlands, or water filled depression created in dry land for a remediation activity are present within the subject property

However, according to USGS StreamStats Application, the drainage ditch has a drainage area of greater than 50 acres and is therefore regulated under the NJDEP FHACA Rules (N.J.A.C. 7:13). Refer to **Figure 5** in **Appendix A** for the drainage area of the ditch within the site.

Appendix A
Figures



Legend

Site Boundary (Block 5608; Lot 10)

Coordinate System:
NAD 1983 StatePlane New Jersey FIPS 2900 Feet

May 2025

0 500 1,000 Feet

N

Figure 1
Site Location
Route 4 over Palisade Avenue, CSX Railroad, and Windsor Road Bridge Replacement

Green Acres Mitigation
210 Shepard Avenue
Teaneck, NJ 07666

Legend

- Site Boundary
- NJDEP Wetland (2020)
- USFWS NWI Wetland
- Streams

Coordinate System:
NAD 1983 StatePlane New Jersey FIPS 2900 Feet

May 2025

0 400 800 Feet

N

Figure 2
Mapped Wetlands and Streams
Route 4 over Palisade Avenue, CSX Railroad, and Windsor Road Bridge Replacement

Green Acres Mitigation
210 Shepard Avenue
Teaneck, NJ 07666

Legend

- Site Boundary
- Soil Map Unit

Coordinate System:
NAD 1983 StatePlane New Jersey FIPS 2900 Feet

May 2025

0 50 100 200 Feet

N

Figure 3
SSURGO Soils Map

Route 4 over Palisade Avenue, CSX Railroad, and Windsor Road Bridge Replacement

Green Acres Mitigation
210 Shepard Avenue
Teaneck, NJ 07666

Legend

- Site Boundary
- Wetland
- Drainage Ditch
- Wetland/Upland Data Sheet Location
- Bergen County Parcels

Coordinate System:
NAD 1983 StatePlane New Jersey FIPS 2900 Feet

May 2025

0 50 100 200 Feet

N

Figure 4
Delineated Features Map

Route 4 over Palisade Avenue, CSX Railroad, and Windsor Road Bridge Replacement

Green Acres Mitigation
210 Shepard Avenue
Teaneck, NJ 07666

Legend

- Site Boundary
- Sampled Point along Drainage Ditch
- Drainage Basin (USGS StreamStats)

Coordinate System:
NAD 1983 StatePlane New Jersey FIPS 2900 Feet

May 2025

0 250 500 1,000 Feet

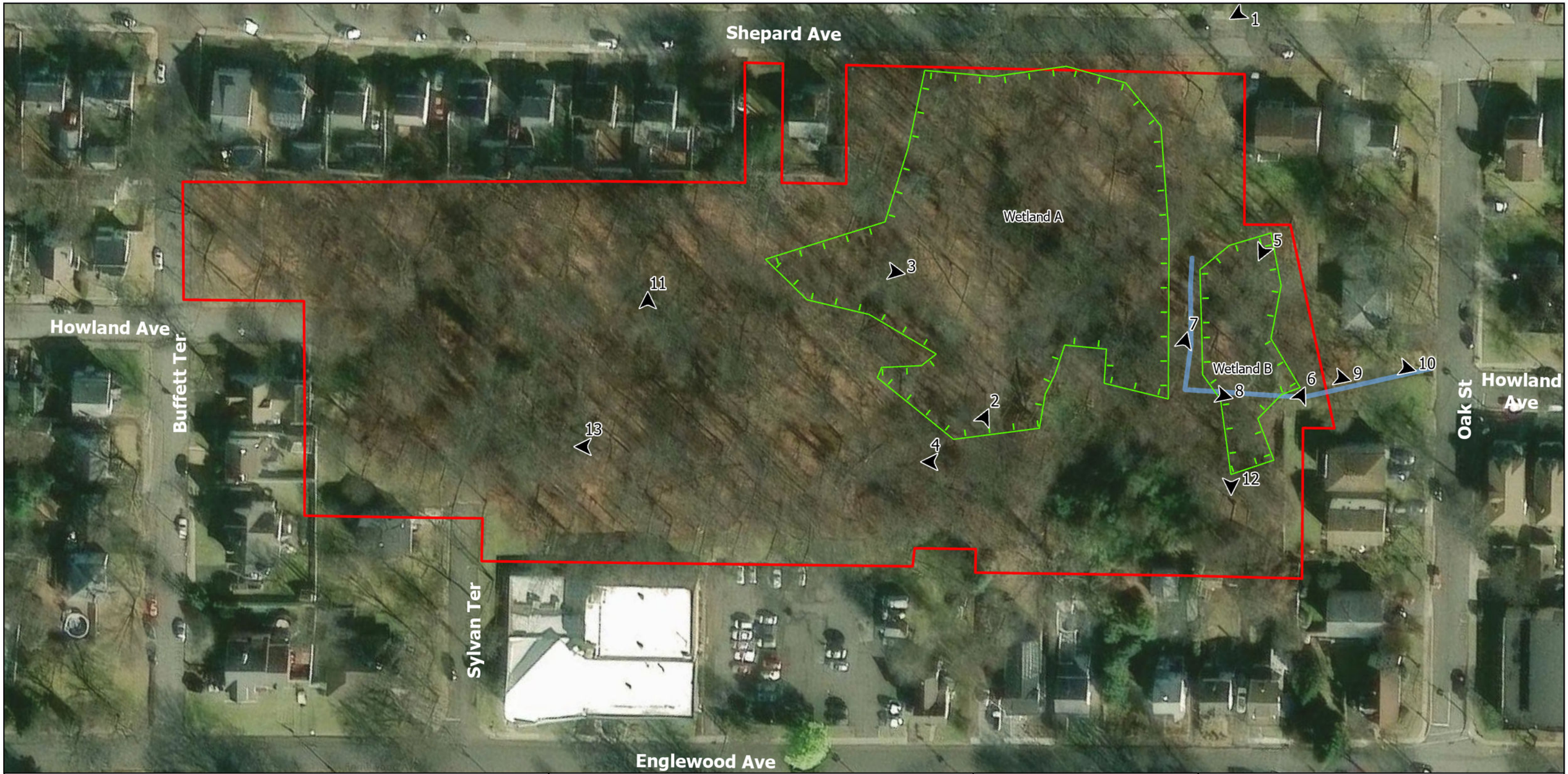
N

Figure 5
Drainage Area Map

Route 4 over Palisade Avenue, CSX Railroad, and Windsor Road Bridge Replacement

Green Acres Mitigation
210 Shepard Avenue
Teaneck, NJ 07666

Appendix B
Representative Photographs



Legend

- Site Boundary
- Photo Location & Direction
- Wetland
- Drainage Ditch

wsp

Coordinate System:
NAD 1983 StatePlane New Jersey FIPS 2900 Feet

May 2025

0 50 100 200 Feet

N

Photo Location & Direction

Route 4 over Palisade Avenue, CSX Railroad, and Windsor Road Bridge Replacement

Green Acres Mitigation
210 Shepard Avenue
Teaneck, NJ 07666

Photo 1: View of subject parcel (Block 5608; Lot 10) from Shepard Avenue, looking southwest.

Photo 2: View of Wetland A, looking north.

Photo 3: View of Wetland A, looking east.

Photo 4: View of Upland A, looking west.

Photo 5: View of Wetland B, facing southwest

Photo 6: View of Upland B, facing north.

Photo 7: View of Drainage Ditch C, facing north.

Photo 8: View of Drainage Ditch C, facing east.

Photo 9: View of Drainage Ditch C, facing east.

Photo 10: View of Culvert connected to Drainage Ditch C at the intersection of Oak Street and Howland Avenue.

Photo 11: Typical upland view within subject property.

Photo 12: Upland area south of Wetland B.

Photo 13: Typical upland view within the western side of the parcel.

Appendix C
Wetland Data Sheets

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 210 Shepard Avenue City/County: Teaneck/Bergen Sampling Date: 5/15/2025

Applicant/Owner: _____ State: NJ Sampling Point: Wetland A

Investigator(s): B. McDonough, N. Mallory Section, Township, Range: _____

Landform (hillslope, terrace, etc.): None Local relief (concave, convex, none): None Slope (%): 00

Subregion (LRR or MLRA): MLRA 144A Lat: 40.899547 Long: -73.99142354 Datum: _____

Soil Map Unit Name: DuoB - Dunellen loam, 3 to 8 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** **Yes ✔** **No _____**
Hydric Soil Present?	Yes ✔	No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes ✔	No _____	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✔ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✔	No _____	Depth (inches): 0
Water Table Present?	Yes ✔	No _____	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes ✔	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Wetland A

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red maple (Acer rubrum)	30	Y	FAC
2. American elm (Ulmus americana)	10	Y	FACW
3. Boxelder (Acer negundo)	5	N	FAC
4. Norway maple (Acer platanoides)	5	N	UPL
5.			
6.			
7.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Northern spicebush (Lindera benzoin)	20	Y	FACW
2. Japanese barberry (Berberis thunbergii)	10	Y	FACU
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Skunk cabbage (Symplocarpus foetidus)	40	Y	OBL
2. Awl-fruited sedge (Carex stipata)	40	Y	OBL
3. Stilt grass (Microstegium vimineum)	20	N	FAC
4. Eastern star sedge (Carex radiata)	5	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Wetland A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5YR 2.5/1	100	--	---	--	--	L	
8-18	10YR 5/1	95	10YR 6/4	5	C	M	Sa	Fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ✔ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 210 Shepard Avenue City/County: Teaneck/Bergen Sampling Date: 5/15/2025

Applicant/Owner: _____ State: NJ Sampling Point: Upland A

Investigator(s): B. McDonough, N. Mallory Section, Township, Range: _____

Landform (hillslope, terrace, etc.): None Local relief (concave, convex, none): None Slope (%): 00

Subregion (LRR or MLRA): MLRA 144A Lat: 40.899508 Long: -73.991803 Datum: _____

Soil Map Unit Name: DuoB - Dunellen loam, 3 to 8 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** ✔
Hydric Soil Present?	Yes _____	No ✔	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes _____	No ✔	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches):

Water Table Present? Yes _____ No _____ Depth (inches):

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches):

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Upland A

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Norway maple (Acer platanoides)	20	Y	UPL
2. Sweetgum (Liquidambar styraciflua	20	Y	FAC
3. Black cherry (Prunus serotina)	10	N	FACU
4. Boxelder (Acer negundo)	10	N	FAC
5.			
6.			
7.			
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Smooth blackhaw (Viburnum prunifolium)	20	Y	FACU
2. Bitternut hickory (Carya cordiformis)	10	Y	FAC
3. Northern spicebush (Lindera benzoin)	10	Y	FACW
4. Japanese barberry (Berberis thunbergii)	2	N	FACU
5.			
6.			
7.			
	42	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Garlic mustard (Alliaria petiolata)	50	Y	FACU
2. White snakeroot (Ageratina altissima)	30	Y	FACU
3. Roundleaf greenbrier (Smilax rotundifolia)	5	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 43 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Upland A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	7.5YR 3/1	100	--	---	--	--	L	
15-18+	7.5YR 4/3	100	--	--	--	--	Sa	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

Hydric Soil Present? Yes _____ No _✔_

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 210 Shepard Avenue City/County: Teaneck/Bergen Sampling Date: 5/15/2025

Applicant/Owner: _____ State: NJ Sampling Point: Wetland B

Investigator(s): B. McDonough, N. Mallory Section, Township, Range: _____

Landform (hillslope, terrace, etc.): None Local relief (concave, convex, none): None Slope (%): 00

Subregion (LRR or MLRA): MLRA 144A Lat: 40.899526 Long: -73.99079 Datum: _____

Soil Map Unit Name: UdwuB - Udorthents, wet substratum-Urban land complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** **Yes** ✔ **No** _____
Hydric Soil Present?	Yes ✔	No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes ✔	No _____	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):
Water Table Present?	Yes ✔	No _____	Depth (inches): 6
Saturation Present? (includes capillary fringe)	Yes ✔	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✔ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Buttress roots present on trees within wetland.

VEGETATION – Use scientific names of plants. Sampling Point: Wetland B

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red maple (Acer rubrum)	30	Y	FAC
2. American elm (Ulmus americana)	30	Y	FACW
3. Swamp white oak (Quercus bicolor)	15	Y	FACW
4.			
5.			
6.			
7.			
	75	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		= Total Cover	

Herb Stratum (Plot size: 5 ft)			
1. Skunk cabbage (Symplocarpus foetidus)	90	Y	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Wetland B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 2.5/1	100	--	---	--	--	L	
6-9	7.5YR 2.5/1	100	--	--	--	--	Cl	
9-18	10YR 5/1	95	10YR 6/4	5	C	M	Sa	Fine Sa

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ✔ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 210 Shepard Avenue City/County: Teaneck/Bergen Sampling Date: 5/15/2025

Applicant/Owner: _____ State: NJ Sampling Point: Upland B

Investigator(s): B. McDonough, N. Mallory Section, Township, Range: _____

Landform (hillslope, terrace, etc.): None Local relief (concave, convex, none): None Slope (%): 00

Subregion (LRR or MLRA): MLRA 144A Lat: 40.899453 Long: -73.990643 Datum: _____

Soil Map Unit Name: UdwuB - Udorthents, wet substratum-Urban land complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** ✔
Hydric Soil Present?	Yes _____	No ✔	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes _____	No ✔	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):
Water Table Present?	Yes _____	No ✔	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):

Wetland Hydrology Present? **Yes** _____ **No** ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Upland B

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Norway maple (Acer platanoides)	30	Y	FAC
2. American elm (Ulmus americana)	15	Y	FACW
3. White ash (Fraxinus americana)	15	Y	FACU
4.			
5.			
6.			
7.			
	60	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		= Total Cover	

Herb Stratum (Plot size: 5 ft)			
1. Garlic mustard (Allaria petiolata)	50	Y	FACU
2. White snakeroot (Ageratina altissima	10	N	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	

Woody Vine Stratum (Plot size: 30 ft)			
1. English ivy (Hedera helix)	10	Y	FACU
2.			
3.			
4.			
	10	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Upland B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5YR 3/1	100	--	---	--	--	L	
8-18	7.5YR 3/2	100	--	--	--	--	SaL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

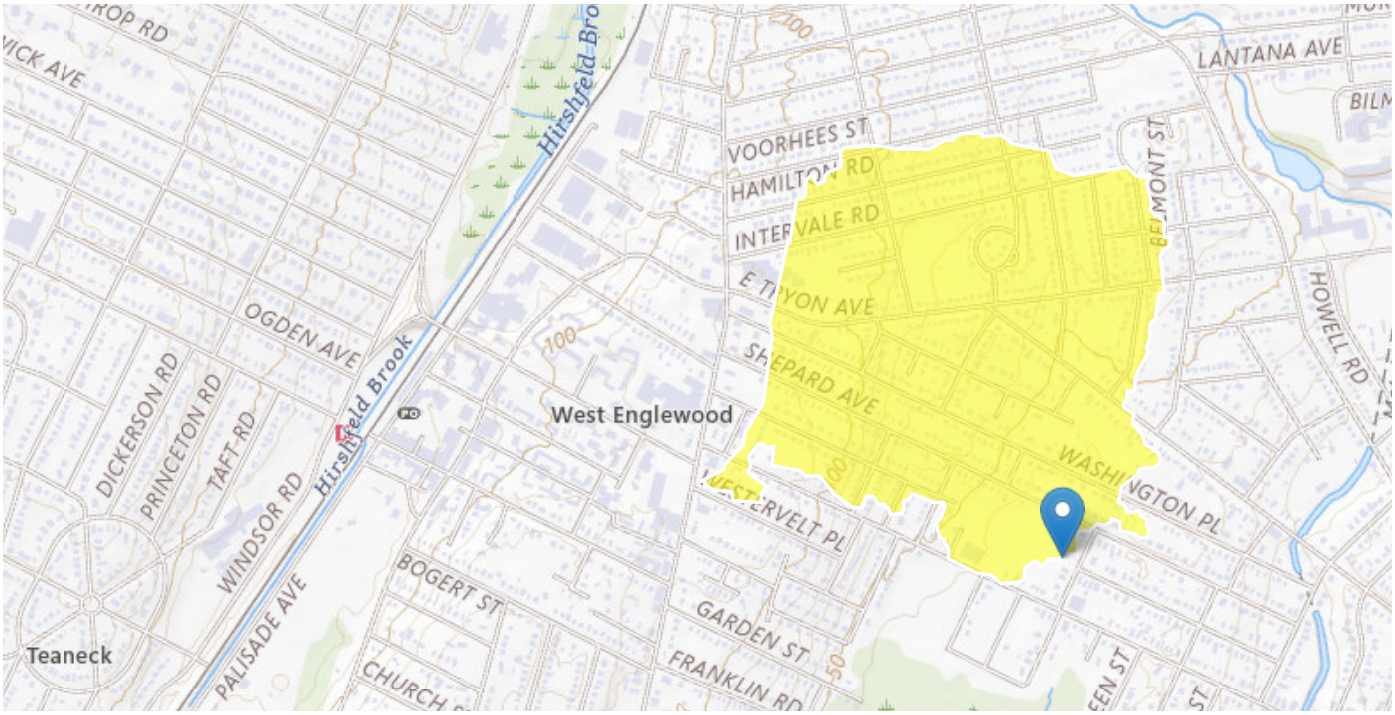
Hydric Soil Present? Yes _____ No _✔_

Remarks:

Appendix D
Agency Correspondence

StreamStats Report

Region ID: NJ
Workspace ID: NJ20250527154743251000
Clicked Point (Latitude, Longitude): 40.89931, -73.99066
Time: 2025-05-27 11:48:06 -0400



Route 4 Proposed Mitigation Parcel

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	81.2	feet per mi
DRNAREA	Area that drains to a point on a stream	0.22	square miles
POPDENS	Basin Population Density	8030	persons per square mile
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent

Peak-Flow Statistics

Peak-Flow Statistics Parameters [Peak Glaciated Piedmont Region 2009 5167]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CSL10_85	Stream Slope 10 and 85 Method	81.2	feet per mi	9.37	176
DRNAREA	Drainage Area	0.22	square miles	1.27	56.4
POPDENS	Basin Population Density	8030	persons per square mile	645	13492
STORAGE	Percent Storage	0	percent	0.62	11.6

Peak-Flow Statistics Disclaimers [Peak Glaciated Piedmont Region 2009 5167]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Peak-Flow Statistics Flow Report [Peak Glaciated Piedmont Region 2009 5167]

Statistic	Value	Unit
50-percent AEP flood	62.2	ft^3/s
20-percent AEP flood	101	ft^3/s
10-percent AEP flood	132	ft^3/s
4-percent AEP flood	175	ft^3/s
2-percent AEP flood	211	ft^3/s
1-percent AEP flood	248	ft^3/s
0.2-percent AEP flood	342	ft^3/s

Peak-Flow Statistics Citations

Watson, K.M.,and Schopp, R.D.,2009, Methodology for estimation of flood magnitude and frequency for New Jersey streams, U.S. Geological Survey Scientific Investigations Report 2009-5167, 51 p. (http://pubs.usgs.gov/sir/2009/5167/)

endorsement by the U.S. Government.

Application Version: 4.29.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1