Woodland Design Associates, Inc.
Landscape Architects □ Site Planners □ Wetlands Specialists

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JAN 27 2023

Jurisdictional Wetland Determination Report

Prepared for:
PATH Partners, LLC
50 Mott Road
Blairstown, NJ 07825

Site address:
218 Twin Rocks Road,
Sterling Township
Wayne County, PA

Date of site visit:
January 26, 2023

Date of Boundary Survey:
Unknown

119 Lincoln Street, Honesdale, PA 18431-2151
Phone: 570-616-0600 □ Email: woodland@woodlanddesign.com Website: www.woodlanddesign.com

1. PURPOSE AND INTRODUCTION

Woodland Design Associates, Inc. was retained by PATH Partners, LLC. to delineate wetlands at the proposed site identified as 218 Twin Rocks Road, Sterling Township, Wayne County, PA. The purpose of this study was to map wetland areas based on the "U.S. ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, TECHNICAL REPORT Y-87-1" which includes regional supplement: NORTHCENTRAL AND NORTHEAST REGION. This report represents the findings of this investigation. The method for identification and delineation of wetlands on this project was the Routine On-Site Determination.

2. SITE LOCATION

This site is in Sterling Township, Wayne County, Pennsylvania. It is found on Twin Rocks Road.

FIGURE 1 is a location map showing the site. FIGURE 2 shows the subdivision map for this area.

The size of the project site is approx. 25 acres.

3. PRELIMINARY INFORMATION SOURCES

TOPOGRAPHY

This site is located on the NEWFOUNDLAND, PA Quadrangle, which is shown in FIGURE 3. The site is below the 1370-foot contour interval and drains into West Branch Wallenpaupack and Butternut Creek.

SOILS

Figure 4 shows the soil survey map (Wayne County GIS Mapping) with the site marked. The soil survey indicated that five (5) soil would be found on the site. Below is the description for this soil:

MaC- Mardin channery loam, 8 to 15 percent slopes:
MdD- Mardin extremely stony loam, 8 to 25 percent slopes:
This series is gently sloping, moderately well drained soil on ridgetops, plateaus, and benches. Slopes are slightly concave to smooth and are irregular in shape. The surface layer is dark yellowish brown channery loam about 6 inches thick. The subsoil extends to a depth of 49 inches. The upper part of the subsoil is yellowish brown and light yellowish brown channery loam about 16 inches thick; mottles are in the lower 5 inches. Below that, the subsoil is a mottled, dark yellowish brown and yellowish brown channery loam fragipan. Permeability is moderate above the fragipan and slow and very slow in the fragipan. Runoff is slow and the available water capacity is low and very low.

VoB- Volusia channery silt loam, 3 to 8 percent slopes:
VxB- Volusia extremely stony silt loam,
VxC- Volusia extremely stony silt loam, 8 to 15 percent slopes:
This is a gently sloping, somewhat poorly drained soil on plateaus and low benches. The areas are irregular in shape. The surface layer is very dark grayish brown channery silt loam about 2 inches thick. The subsurface layer is dark brown channery silt loam about 3 inches thick. The subsoil extends to a depth of 45 inches. In the upper 7 inches, it is dark brown and olive brown

channery silt loam. Below that, at a depth of 12 inches, the subsoil is mottled, dark grayish brown channery loam and channery silty clay loam fragipan 33 inches thick. Permeability is slow and very slow, and the available water capacity is very low and low. Runoff is medium.

According to the USDA Soil Conservation's HYDRIC SOILS MANUAL OF THE UNITED STATES Mardin and Volusia are upland soils that may have hydric inclusions of Chippewa soils.

NATIONAL WETLAND INVENTORY MAP

The national Wetland Inventory Map (FIGURE 5) indicates that the project site is uplands.

4. SITE INVESTIGATION

The site was visited on January 26, 2023. The wetland delineator was Michael C. Wood, Registered Landscape Architect, principal and Alex Kammeier, GPS operator. The weather was cloudy and approximately 38 degrees. It had not rained in the area in the last 24 hours. Four borings were taken for this project. The boring locations are shown on the attached plan (FIGURE 6). Vegetation, soils, and hydrology were observed and recorded on the following Field Data Sheet for each boring. Thirteen photographs were also taken of the property and are located on FIGURE 7.1-7.2. The location and direction of the photographs are shown on the attached plan (FIGURE 6).

5. FINDINGS AND SUMMARY

Five (5) wetlands/water were found on site. The flag location and labels can be found on Figure 6. The U.S. Army Corp of Engineers has the final determination as to jurisdiction of wetlands and Waters of the U.S. The Corps can provide, if requested, a jurisdictional determination with regards to this property if you should so desire. A Jurisdictional Determination Request Form is available either through this firm, or through the Corp District office.

The limit of professional liability for this project shall be limited to an amount equal to the fee paid for all work performed by Woodland Design Associates, Inc.

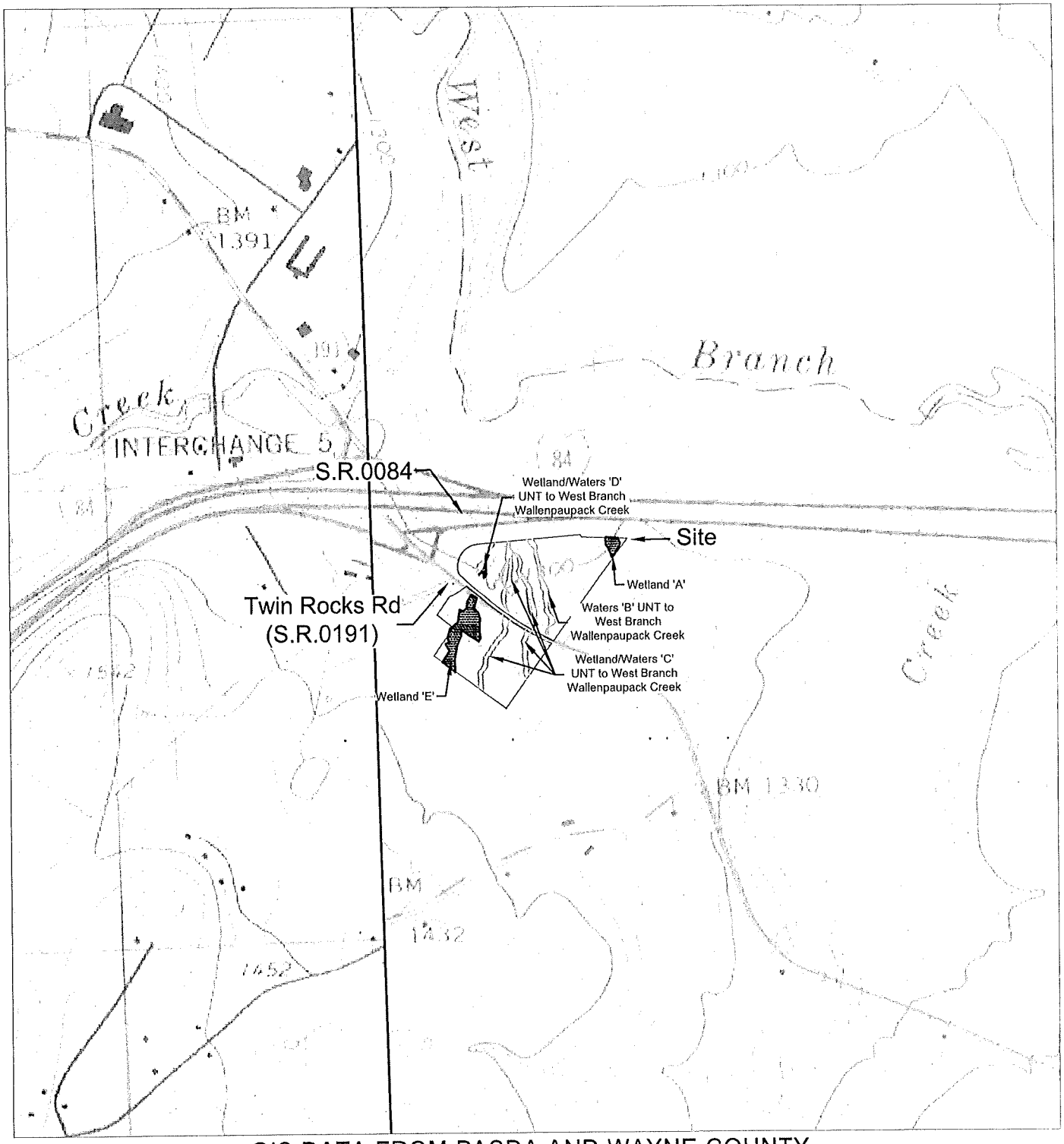
6. CERTIFICATION

I certify that the above statements, attachments, including those labeled and identified as FIGURES 1 through 7, and all conclusions are true, correct, and based upon current environmental principles and science, to the best of my knowledge and belief.

January 27, 2023

Michael C. Wood
Registered Landscape Architect
PA. Reg. #000-782-E

Date



GIS DATA FROM PASDA AND WAYNE COUNTY

Legend

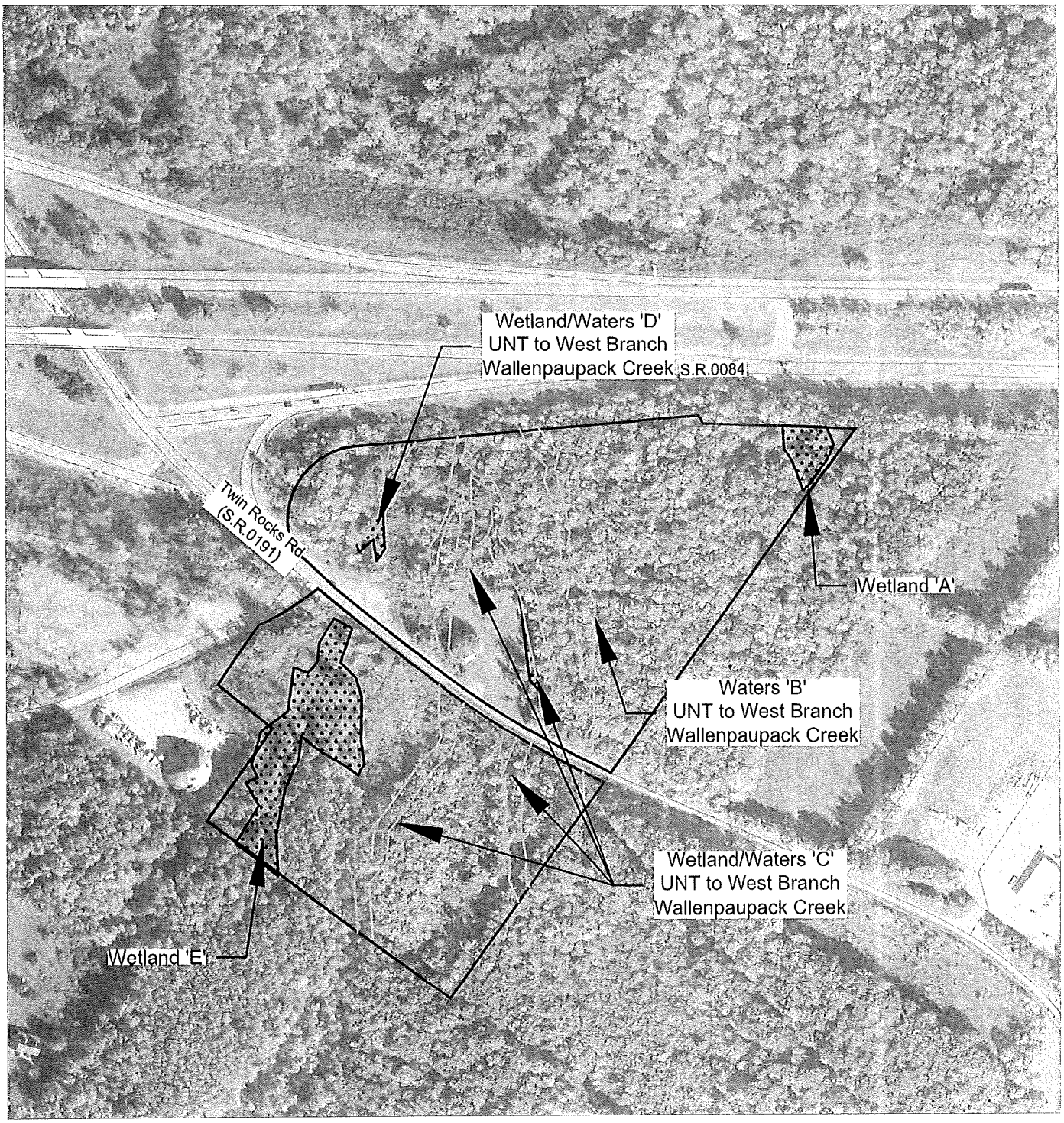
- Project Boundary
- Pa. State Roads
- Parcels
- Local Roads
- Streams

0 1000 2000

NORTH

Wetland Delineation
Figure 1: Location Map
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023



GIS DATA FROM PASDA AND WAYNE COUNTY

Legend

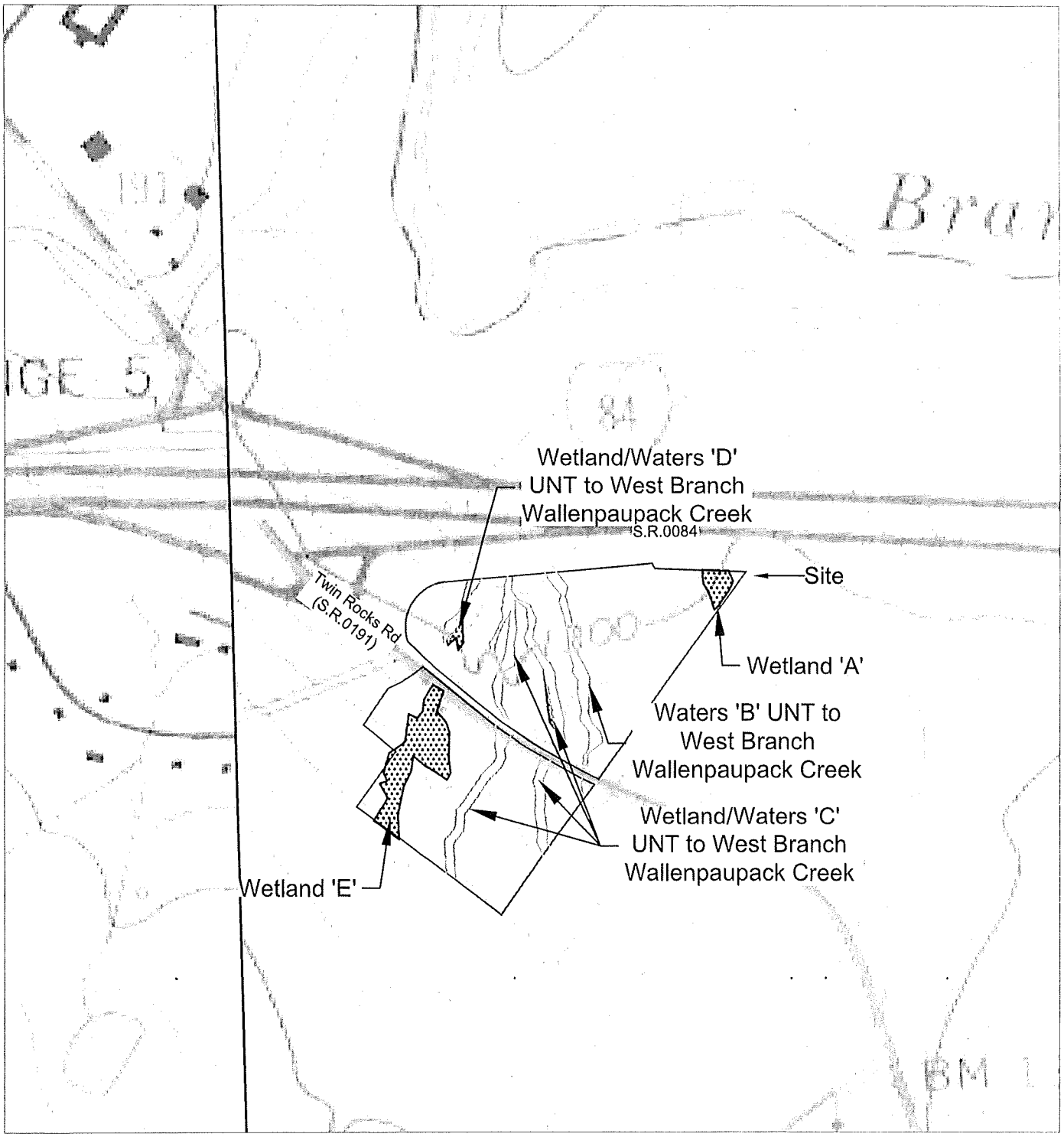
- Project Boundary
- Pa. State Roads
- Parcels
- Local Roads
- Streams

0 300 600

NORTH

Wetland Delineation
Figure 2: Subdivision Map
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023



GIS DATA FROM PASDA AND WAYNE COUNTY

Legend

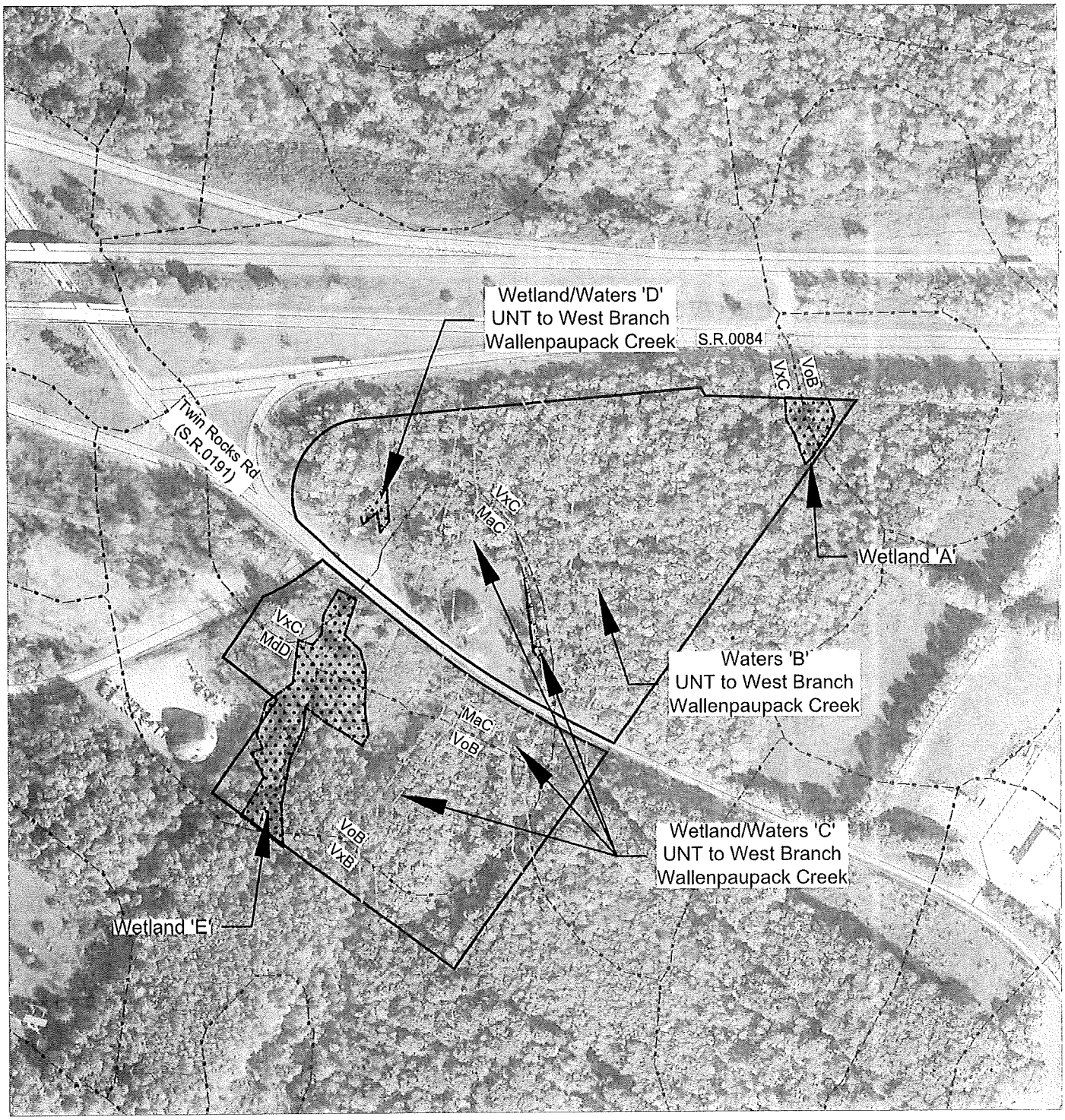
- Project Boundary
- Pa. State Roads
- Parcels
- Local Roads
- Streams

0 500 1000

NORTH

Wetland Delineation
Figure 3: Topographic Map
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023



GIS DATA FROM PASDA AND WAYNE COUNTY

Legend

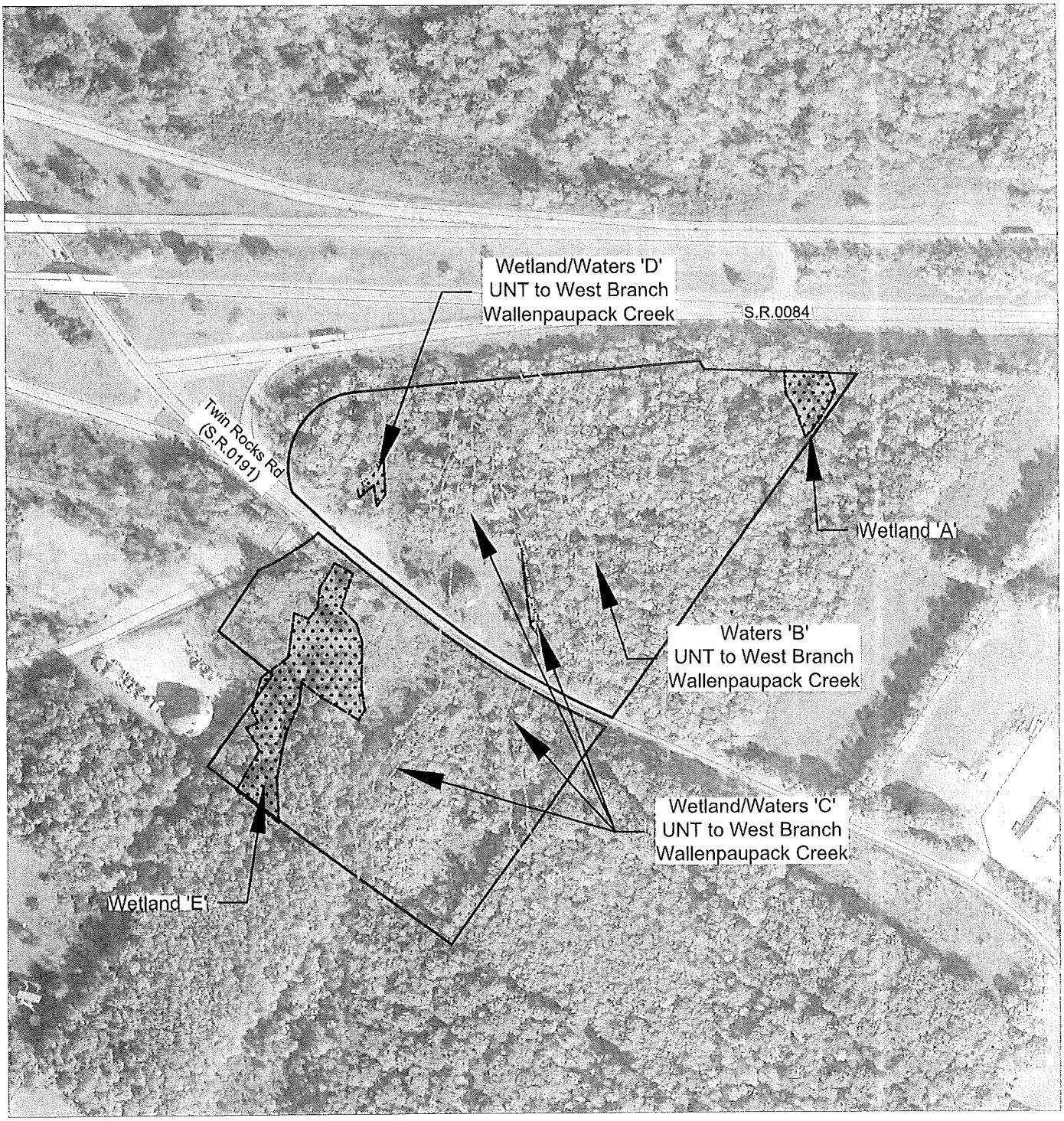
- Project Boundary
- Soils
- Pa. State Roads
- Parcels
- Local Roads
- Streams

0 300 600

NORTH

Wetland Delineation
Figure 4: Soils Map
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023



GIS DATA FROM PASDA AND WAYNE COUNTY

Legend

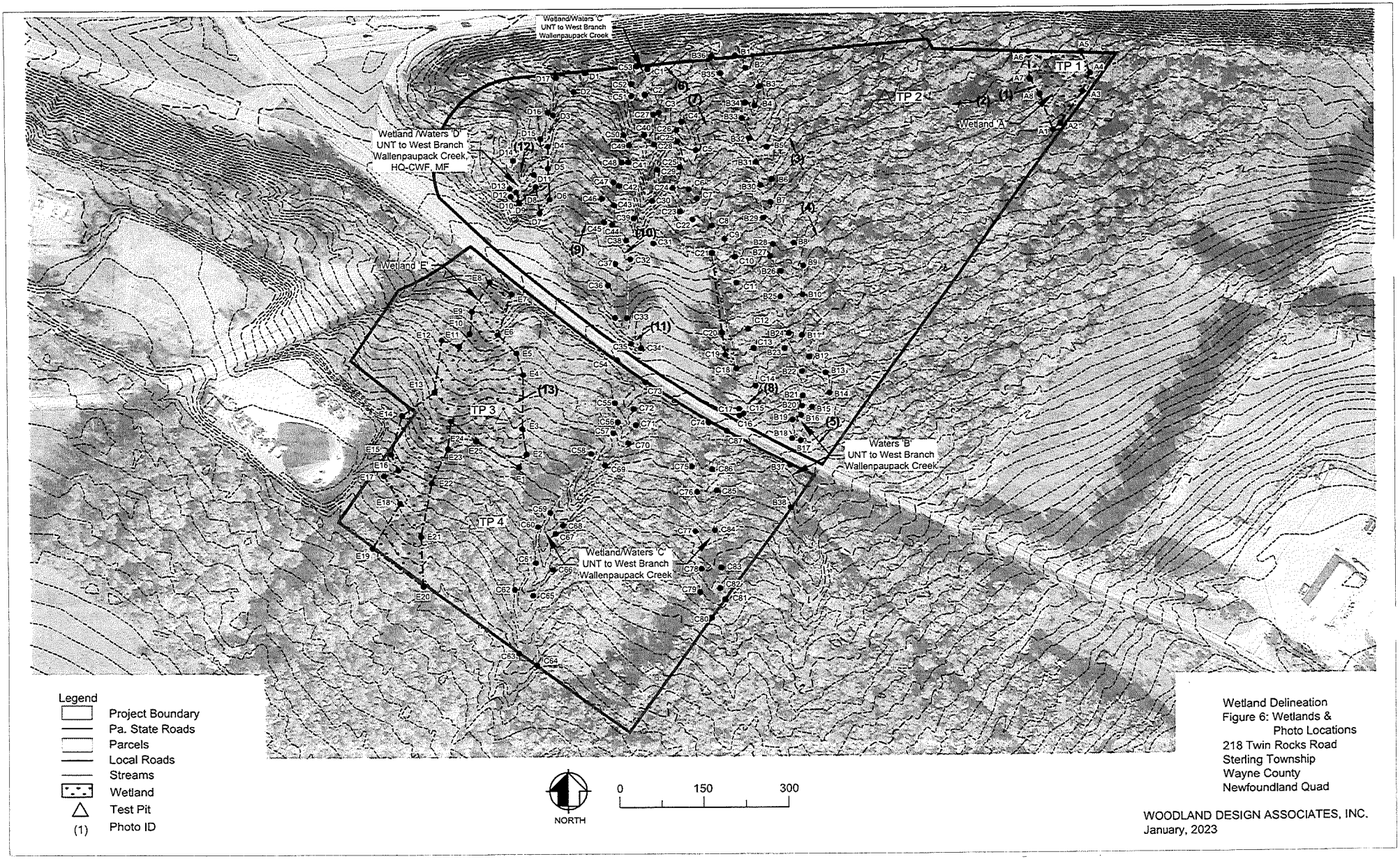
- Project Boundary
- Pa. State Roads
- Parcels
- Local Roads
- Streams
- NWI- No NWI Present

0 300 600

NORTH

Wetland Delineation
Figure 5: NWI
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023



Legend

- Project Boundary
- Pa. State Roads
- Parcels
- Local Roads
- Streams
- Wetland
- Test Pit
- (1) Photo ID

Wetland Delineation
Figure 6: Wetlands & Photo Locations
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023

Photo 1

Photo 2

Photo 3

Photo 4

Wetland Delineation
Figure 7.1: Photos
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023

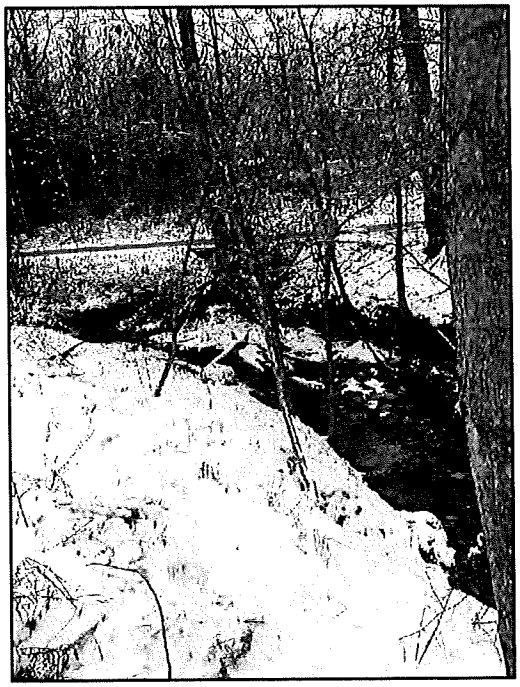


Photo 5

Photo 6

Photo 7

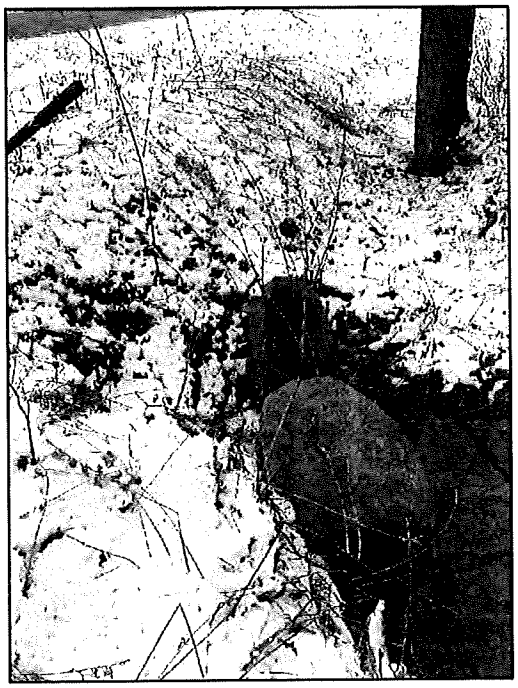


Photo 8

Wetland Delineation
Figure 7.2: Photos
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023

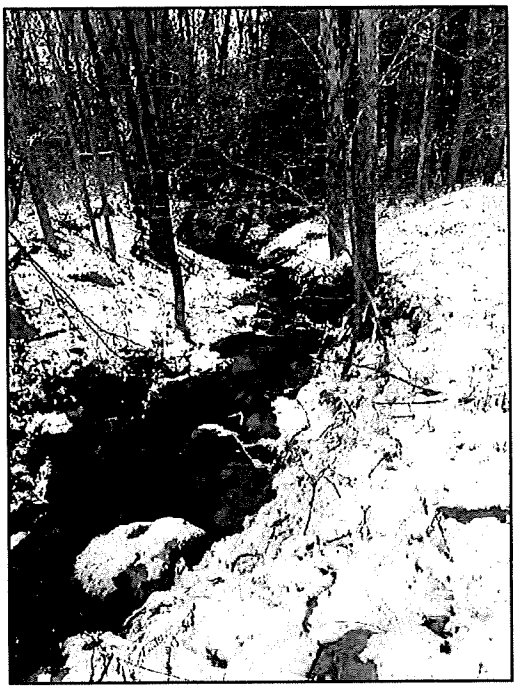


Photo 9

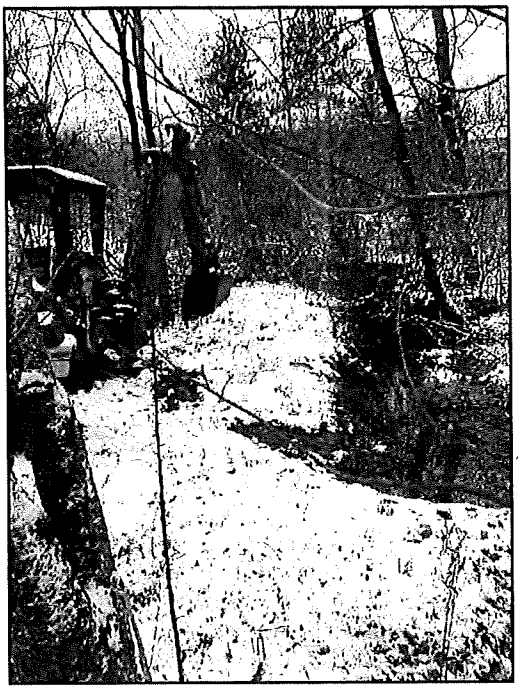


Photo 10

Photo 11

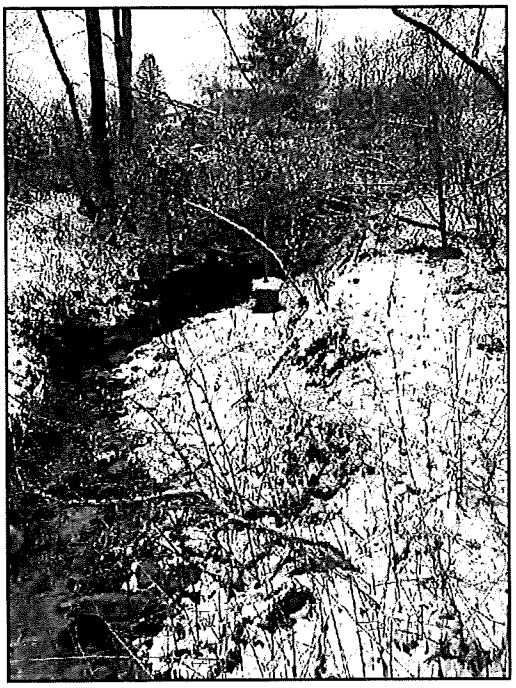


Photo 12

Wetland Delineation
Figure 7.3: Photos
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023

Photo 13

Wetland Delineation
Figure 7.3: Photos
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 218 Twin Rocks Road City/County: Wayne Sampling Date: 1.26.23

Applicant/Owner: PATH Partners, LLC State: PA Sampling Point: TP 1

Investigator(s): Micahel Wood, RLA, Alex Kammeier Section, Township, Range: Sterling Township

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 3-8% Lat: 41.353512 Long: -75.368839 Datum: WGS84

Soil Map Unit Name: VoB- Volusia channery silt loam NWI classification: UPL

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

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

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

Remarks: (Explain alternative procedures here or in a separate report.)

Meets all three criteria.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X 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)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No _____	Depth (inches): 2
Water Table Present?	Yes X	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes X No _____

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

google maps

Remarks:

Evidence of water table immediately below the surface for 12.5 percent of the growing season measured in consecutive days.

VEGETATION – Use scientific names of plants.

Sampling Point: TP 1

Tree Stratum (Plot size: 30 ' dia)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' dia)			
1. Red Maple	10	no	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		
Herb Stratum (Plot size: 5' dia)			
1. Leafy Tusic Sedge	50	yes	OBL
2. Reed Canary Grass	25	yes	OBL
3. Cinnamon Fern	15	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30' Dia)			
1. none			
2.			
3.			
4.			
	0 = 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: 2 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	75	x 1 =	75
FACW species	15	x 2 =	30
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		135 (B)

Prevalence Index = B/A = 1.35

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ 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 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 X No ___

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

See Photo 1.

Meets rapid, dominance and prevalence test.

SOIL

Sampling Point: TP 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4"	10YR 3/1	80					weak fine and medium g	20% coarse fragments
4-10"	5YR 5/2	70	2.5YR 5/6	10	C	M	weak medium granular s	20% coarse fragments
10-16"	2.5YR 5/2	65	2.5YR 5/2	10	C	M	weak medium subangul	25% coarse fragments

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X 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)
- X 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)**
- ___ 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 (TF2)
- ___ 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 X No _____

Remarks:

Immediately below the surface the chroma is < 3; redox concentrations immediately below the surface.

Soil mapped on site is Volusia, Volusia soil has Chippawa inclusions. Soil found on site was Chippawa

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 218 Twin Rocks Road City/County: Wayne Sampling Date: 1.26.23

Applicant/Owner: PATH Partners, LLC State: PA Sampling Point: TP 2

Investigator(s): Micahel Wood, RLA, Alex Kammeier Section, Township, Range: Sterling Township

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 8-15% Lat: 41.353389 Long: -75.369876 Datum: WGS84

Soil Map Unit Name: VxC- Volusia extremely stony silt loam NWI classification: UPL

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

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

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

Remarks: (Explain alternative procedures here or in a separate report.)

Does not meet any of the three criteria

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

Wetland Hydrology Present? Yes _____ No X

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

google maps

Remarks:

No evidence of water table at or near the surface for 12.5% of the growing season measured in consecutive days

VEGETATION – Use scientific names of plants.

Sampling Point: TP2

Tree Stratum (Plot size: 30' dia)	Absolute % Cover	Dominant Species?	Indicator Status
1. American Beech	30	Yes	FACU
2. Sugar Maple	20	Yes	FACU
3. Black Cherry	15	Yes	FACU
4. Eastern White Pine	10	No	FACU
5.			
6.			
7.			
	75	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' dia)			
1. American Beech Sapling	15	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size: 5' dia)			
1. Hay Scented Fern	10	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	= Total Cover	
Woody Vine Stratum (Plot size: 30' dia)			
1. none	0		
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	10	x 5 =	50
Column Totals:	100 (A)		410 (B)

Prevalence Index = B/A = 4.10

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 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 X

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

See photo 2

Does not meet the rapid, dominance, or prevalence tests

SOIL

Sampling Point: TP2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	85					mod. very fine and fine g	15% Coarse Fragments
2-5	10YR 4/3	85					weak very fine subangul	15% Coarse Fragments
5-9	10YR 4/3	85					mod. fine subangular blc	15% Coarse Fragments
9-12	2.5Y 4/4	80					weak fine subangular bl	20% Coarse Fragments

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)**
- ___ 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 (TF2)
- ___ 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: none

Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks:

Chroma of matrix is >2; no mottles or gleying immediately below the surface

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 218 Twin Rocks Road City/County: Wayne Sampling Date: 1.26.23

Applicant/Owner: PATH Partners, LLC State: PA Sampling Point: TP 3

Investigator(s): Micahel Wood, RLA, Alex Kammeier Section, Township, Range: Sterling Township

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 3-8% Lat: 41.351871 Long: -75.372429 Datum: WGS84

Soil Map Unit Name: VoB- Volusia channery silt loam NWI classification: UPL

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

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

Are Vegetation No, Soil No, or Hydrology No 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 X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: Wetland E

Remarks: (Explain alternative procedures here or in a separate report.)

Meets all three criteria.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X 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)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 2
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes X No ____

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

google maps

Remarks:

Evidence of water table immediately below the surface for 12.5 percent of the growing season measured in consecutive days.

VEGETATION – Use scientific names of plants.

Sampling Point: TP 3

Tree Stratum (Plot size: 30 ' dia)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' dia)			
1. Red Maple	10	no	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		
Herb Stratum (Plot size: 5' dia)			
1. Leafy Tusic Sedge	30	yes	OBL
2. Reed Canary Grass	30	yes	OBL
3. Cinnamon Fern	20	no	FACW
4. Sensitive Fern	10	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30' Dia)			
1. none			
2.			
3.			
4.			
	0 = 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: 2 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	30	x 2 =	60
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		150 (B)

Prevalence Index = B/A = 1.5

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ 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 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 X No ___

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

See Photo 14.

Meets rapid, dominance and prevalence test.

SOIL

Sampling Point: TP 3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4"	10YR 3/1	80					weak fine and medium g	20% coarse fragments
4-10"	5YR 5/2	70	2.5YR 5/6	10	C	M	weak medium granular s	20% coarse fragments
10-16"	2.5YR 5/2	65	2.5YR 5/2	10	C	M	weak medium subangul	25% coarse fragments

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X 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)
- X 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)**
- ___ 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 (TF2)
- ___ 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 X No _____

Remarks:

Immediately below the surface the chroma is < 3; redox concentrations immediately below the surface.

Soil mapped on site is Volusia, Volusia soil has Chippawa inclusions. Soil found on site was Chippawa

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 218 Twin Rocks Road City/County: Wayne Sampling Date: 1.26.23

Applicant/Owner: PATH Partners, LLC State: PA Sampling Point: TP4

Investigator(s): Michael C. Wood, RLA Section, Township, Range: Sterling Township

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 3-8% Lat: 41.351360 Long: -75.372681 Datum: WGS84

Soil Map Unit Name: VoB- Volusia channery silt loam NWI classification: UPL

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

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

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

Remarks: (Explain alternative procedures here or in a separate report.)

Does not meet any of the three criteria

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)
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- ___ 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)
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- ___ Moss Trim Lines (B16)
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- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes _____ No X

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

google maps

Remarks:

No evidence of water table at or near the surface for 12.5% of the growing season measured in consecutive days

VEGETATION – Use scientific names of plants.

Sampling Point: TP4

Tree Stratum (Plot size: 30' dia)	Absolute % Cover	Dominant Species?	Indicator Status
1. American Beech	30	Yes	FACU
2. Red Maple	30	Yes	FACU
3. Black Cherry	15	Yes	FACU
4.			
5.			
6.			
7.			
	75	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' dia)			
1. American Beech Sapling	15	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size: 5' dia)			
1. Green Briar	10	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	= Total Cover	
Woody Vine Stratum (Plot size: 30' dia)			
1. none	0		
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	10	x 5 =	50
Column Totals:	100 (A)		410 (B)

Prevalence Index = B/A = 4.10

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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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 X

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

Does not meet the rapid, dominance, or prevalence tests

SOIL

Sampling Point: TP4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	85					mod. very fine and fine g	15% Coarse Fragments
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- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
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- ___ 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)**
- ___ 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 (TF2)
- ___ 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):

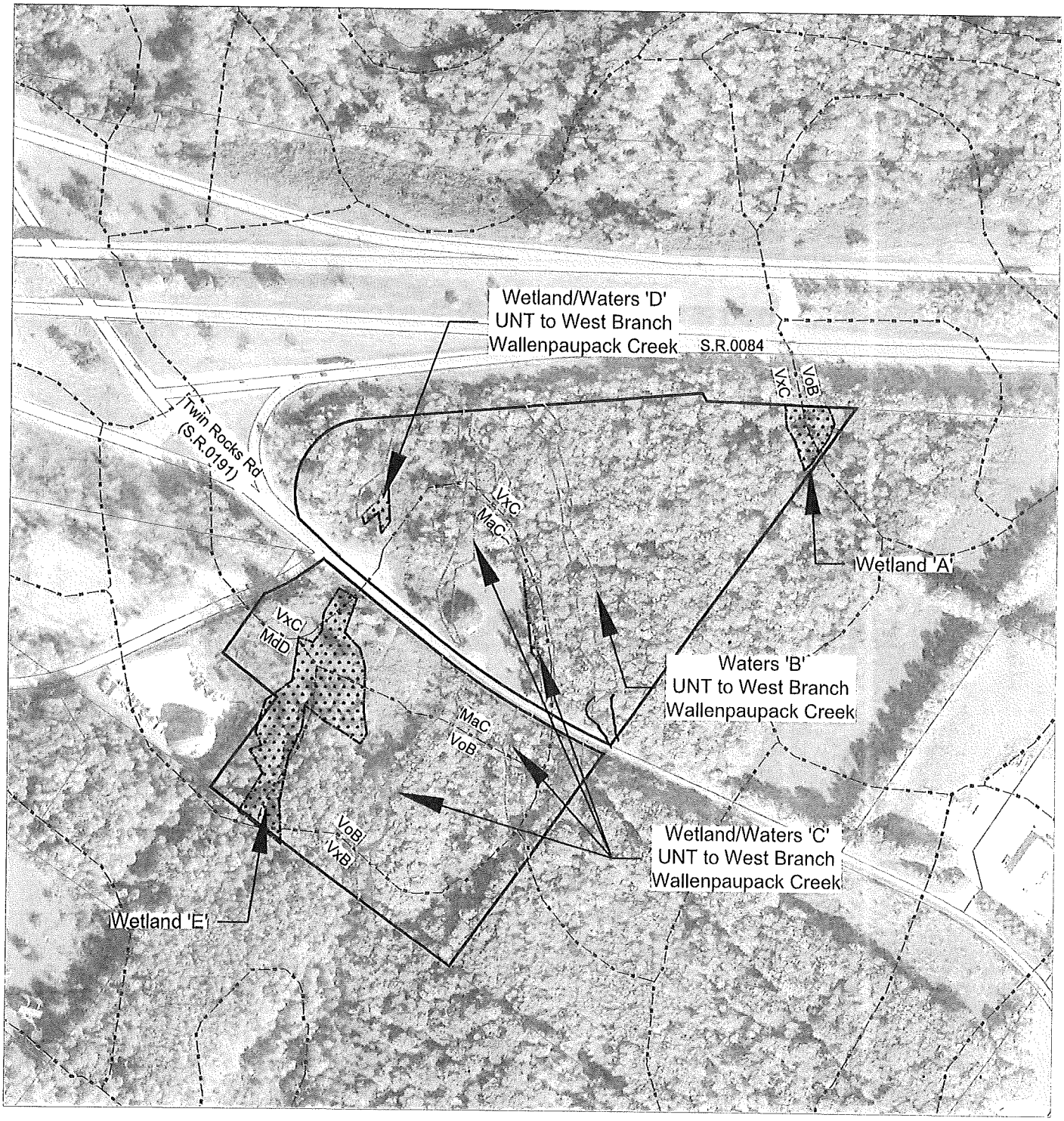
Type: none

Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks:

Chroma of matrix is >2; no mottles or gleying immediately below the surface



GIS DATA FROM PASDA AND WAYNE COUNTY

Legend

- Project Boundary
- Soils
- Pa. State Roads
- Parcels
- Local Roads
- Streams

0 300 600

NORTH

Wetland Delineation
Figure 4: Soils Map
218 Twin Rocks Road
Sterling Township
Wayne County
Newfoundland Quad

WOODLAND DESIGN ASSOCIATES, INC.
January, 2023