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Planning & Development
Town of Waterford, CT

TOWN OF WATERFORD
Application for Inland Wetland / Watercourse Permit

Type of Application:
Permitted Use, Section 4.1 ________
Unregulated Activities, Section 4.2 ________
Regulated Activities, Section 6 ✓ Fee: $110.00

Agency Use:
Date Received: Sept. 26, 2024
Received By: ________
Application Number: C-24-09

1. Applicant: Integrity Properties **Phone:** 860-638-8329
Address: 7 Vincent Court, Clinton **State:** CT **Zip:** 06415
Fax: N/A **E-Mail:** mike@callinanconstructionllc.com
2. Owner: Michael Jezierski **Phone:** 860-739-5659
Address: 171 Whistletown Rd, East Lyme **State:** CT **Zip:** 06333
Fax: N/A **E-Mail:** wjtree54@aol.com
3. Agent: CLA Engineers **Phone:** 860-886-1966
Address: 317 Main St, Norwich **State:** CT **Zip:** 06360
Fax: 860-886-9165 **E-Mail:** brusso@claengineers.com
4. Property Address: 234 Bloomingdale Rd, Quaker Hill, CT
5. Abutting Property Owners – Complete Attached Form See Attached Abutters' List
6. Activity to be Reviewed and / or Licensed (attach sheet if necessary):
Residential Improvements, Additions, & New Structures (additional details in attached narrative)
7. Description of Proposed Activity (attach sheet if necessary):
See attached narrative
8. Purpose of Activity (attach sheet if necessary): See attached narrative
9a. Acreage of Property: 2.41 ac **9b. Acreage of Wetlands:** 0.072 ac
10. Acreage of Wetlands Altered: 0.0 ac
11. Wetland Mitigation Proposed: N/A
12. Section 7 and sections 8.1 & 8.2 of the Town of Waterford "Inland Wetlands and Watercourse Regulations" have been complied with: (Review attached check list) **Yes:** ✓ **No:**

The applicant / owner hereby gives the Commission, its agent and consultants the right of free access to any part of the property under consideration. The undersigned warrants the truth of all statements contained herein and in all supporting documents according to the best of his / her knowledge, information and belief.

Applicant: *Michael Callinan* **Date:** 9/5/2024
Owner: Signed by: Michael Jezierski — Michael Jezierski **Date:** 9/5/2024
Agent: Molly K Ahern **Date:** 9/3/2024

Abutters' List: 234 Bloomingdale Rd, Quaker Hill, CT						
Parcel ID	Owner	Mailing Address	Mailing City	State	Zip	Property Address
44000	CROMPTON JAMES	PO BOX 171	QUAKER HILL	CT	6375	230 BLOOMINGDALE ROAD
44200	JEZIERSKI MICHAEL	171 WHISTLETOWN ROAD	EAST LYME	CT	6333	234 BLOOMINGDALE ROAD
44700	MILES CARL D & ELIZABETH	246 BLOOMINGDALE RD	QUAKER HILL	CT	6375	246 BLOOMINGDALE ROAD
44500	MILUKAS MARCUS E & CELESTE M	239 BLOOMINGDALE RD	QUAKER HILL	CT	6375	239 BLOOMINGDALE ROAD
44400	ORTIZ MIGUEL A	238 BLOOMINGDALE ROAD	QUAKER HILL	CT	6375	238 BLOOMINGDALE ROAD
44100	SILVA PETER J & EDNA D	233 BLOOMINGDALE RD	QUAKER HILL	CT	6375	233 BLOOMINGDALE ROAD
42700	TYSON BRYAN A & COURTNEY C	204 BLOOMINGDALE ROAD	QUAKER HILL	CT	6375	204 BLOOMINGDALE ROAD
418500	ZIOLKOVSKI RICHARD M	10 MILLERS POND ROAD	QUAKER HILL	CT	6375	10 MILLERS POND ROAD
418400	ZIOLKOVSKI RICHARD M	10 MILLERS POND ROAD	QUAKER HILL	CT	6375	8 MILLERS POND ROAD

CLA Engineers, Inc.

Civil • Structural • Survey

317 MAIN STREET • NORWICH, CT 06360 • (860) 886-1966 • (860) 886-9165 FAX

August 29, 2024

RE: Inland Wetlands and Watercourses Application
Town of Waterford
234 Bloomingdale Rd
Waterford, CT
CLA-7880

DEVELOPMENT NARRATIVE: 234 BLOOMINGDALE RD

The site is a 2.41 acre parcel located on the north side of Bloomingdale Rd just east of the intersection with Millers Pond Rd Currently, the parcel is undeveloped and covered with forest. The southern and eastern edges of the parcel are forested. Hunts Brook runs northward across the north end of the property and later joins the Thames River system. The wetland associated with Hunts Brook is identified as Wetland 3 on site plans. Additionally, two small wetland areas (identified as Wetland 1 and Wetland 2 on the plans) are located on the property. The inland wetland boundary was delineated by Robert Russo, CSS and Molly Ahern, MESM on June 24, 2024. The wetland boundary and proposed driveway crossing are shown on the plans prepared by CLA Engineers dated August 20, 2024, and a full wetland narrative and functional assessment are included in this application.

The surrounding neighborhood is zoned residential (R-40) per 2022 update of the Town of Waterford Zoning Map and consists of low- to medium-density single family residential lots, most of which are developed.

The proposed construction project at the site is a single-family, four-bedroom home with a driveway and 1,500-gallon septic system. No work is planned in the wetlands, but the septic tank and associated leaching system are proposed within the 100-foot upland review area of Wetlands 1 and 2. No landscape grading is proposed on the site.

Contractors will utilize typical loaders, rollers, dump trucks, and other typical construction equipment for the construction of the driveway and house. The septic system will be installed using typical excavators and septic installation equipment as noted on plans. Erosion and sedimentation controls will be taken where necessary to prevent sedimentation into wetlands, including the installation of silt fence around the perimeter of the work area.

Alternative designs for this project were not considered as the current proposed activity alters a total wetland area of zero (0) acres. Due to spatial constraints (i.e. minimum front

setback of 50' in Waterford), there is no way to move the septic system further from the wetlands than indicated on the plans.

CLA Engineers, Inc.

Civil • Structural • Survey

317 MAIN STREET • NORWICH, CT 06360 • (860) 886-1966 • (860) 886-9165 FAX

September 3, 2024

Waterford Conservation Commission
Attn: Maureen FitzGerald, Environmental Planner
15 Rope Ferry Rd
Waterford, CT 06385

Re: Town of Waterford
234 Bloomingdale Rd
Waterford, CT
CLA #7880

Dear Ms. FitzGerald:

On behalf of the applicant, CLA Engineers has performed a delineation and functional evaluation of the inland wetlands at the referenced site and assessed the site to provide a basis for determining the potential for impacts. The inland wetland boundary was delineated by Robert Russo, CSS and Molly Ahern, MESM on June 24, 2024. The wetland boundary and proposed development are shown on the plans prepared by CLA Engineers dated August 20, 2024. These data were augmented with additional online information from CTDEEP, USFWS, USGS, and the Town of Waterford.

Site Setting

The site is a 2.41 acre parcel located on the north side of Bloomingdale Rd just east of the intersection with Millers Pond Rd Currently, the parcel is undeveloped and covered with forest. The southern and eastern edges of the parcel are forested. Hunts Brook runs southeast across the north end of the property and later joins the Thames River system. The wetland associated with Hunts Brook is identified as Wetland 3 on site plans. Additionally, two small wetland areas (identified as Wetland 1 and Wetland 2 on the plans) are located on the property.

The surrounding neighborhood is zoned residential (R-40) per 2022 update of the Town of Waterford Zoning Map and consists of low- to medium-density single family residential lots, most of which are developed.

Soils

The upland and wetland soils mapped by NRCS are listed in the table below. Additional descriptive details are provided in Appendix A.

Table 1 - Soil Types and Properties at the Bloomingdale Rd Site

Soil Series	Parent Material	Drainage Class	Texture/Characteristics
Agawam	Coarse-loamy eolian deposits	Well drained	Fine sandy loam
Rippowam*	Coarse-loamy alluvium	Poorly drained	Fine sandy loam

*Hydric (wetland) soil type

The wetland soil unit mapped on this site consists of Rippowam fine sandy loam. The Rippowam series consists of very deep, well drained soils formed in sandy, water deposited materials. They are level to steep soils on outwash plains and high stream terraces.

The upland soil mapped on this parcel is Agawam fine sandy loam. The Agawam series consists of very deep, poorly drained loamy soils formed in alluvial sediments. They are nearly level soils on flood plains subject to frequent flooding.

Wetland Characteristics

Classification

The National Wetlands Inventory (NWI https ://fwsprimary.wim.usgs.gov/ wetlands/apps/wetlands-mapper/) shows the onsite wetlands as palustrine forested wetland (PFO1E). The description of that classification is provided below.

Classification code: PFO1E

System Palustrine (P): The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.
Class Forested (FO): Characterized by woody vegetation that is 6 m tall or taller.
Subclass Persistent (1): Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.
Water Regime Seasonally Flooded/Saturated (E): Surface water is present for extended periods (generally for more than a month) during the growing season, but is absent by the end of the season in most years. When surface water is absent, the substrate typically remains saturated at or near the surface.

Wetland hydrology

Because no activities are planned within the 100-foot upland review area associated with Hunt's Brook (Wetland 3), the below functional assessment focuses only on the functions provided by Wetlands 1 and 2. Wetland 1 is a small, highly disturbed depression with seasonal inundation. Some evidence indicates that Wetland 1 may be a vernal pool (high water marks but no water present during August site investigation, deep depression, some amphibians present), but springtime assessment is required to confirm whether this is the case. Wetland 2 is a small forested swamp dominated by *Acer rubrum* in the tree stratum. The wetland is seasonally saturated.

Factors important to functional assessment

The following observations are important to the functional assessment and are listed here to provide context to the later discussion of functions and values.

1. Connecticut protected species are not known to be present on the site per the June 2024 update of the CTDEEP NDDB. The full NDDB map is included as Appendix B.
2. The stream present on the northern end of the property, Hunts Brook, has a known fish and macroinvertebrate community per CTDEEP research. Detailed species lists are provided in Appendix C. No activity is proposed in proximity of Hunts Brook or its associated wetland (Wetland 3).
3. The local zoning is residential (R-40) per the Town GIS, and the surrounding parcels appear to be used for single-family residences.
4. The wetlands have coarse-loamy alluvial and eolian soils within per available online mapping.
5. Wetlands 1 and 2 are not part of a larger watercourse system, but are close to the Thames River system.
6. The wetlands appear to be highly disturbed but functional.

Principal functions

The functional assessment was conducted using the USCAE Highway Methodology (https://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/HighwaySupplement6Apr2015.pdf). The assessment is included as Appendix C and it revealed that the wetlands have the following principal functions:

1. Sediment and toxicant retention
2. Nutrient removal
3. Wildlife habitat

Potential for Impacts

As shown on the project plans, no activities are planned in any of the three wetlands identified on site. However, some of the proposed activities will take place within the 100-foot upland review zone for Wetlands 1 and 2, with the nearest activity taking place 50 feet from Wetland 1. These activities are as follows:

1. Installation of a septic system featuring a 1,500-gallon tank and one 12x48' leaching trench suitable for the planned 4-bedroom home
2. Clearing of upland vegetation
3. Grading soil for the house and septic system
4. Installation of erosion and sedimentation control measures such as silt fence and hay bales where appropriate as indicated on plans

The proposed activities outlined above may impact the wetland's principal functions in the following ways:

1. Sediment and Toxicant Retention: If Wetland 1 is cleaned and restored to its original state (i.e. before it became degraded), then it will still be able to effectively perform its sediment and toxicant retention function, improving water quality.
2. Nutrient Removal: Because poorly drained and very poorly drained soils are known to exist both in and around the wetland, the wetland will remain able to remove nutrients after septic system installation.
3. Wildlife Habitat: As long as proper erosion control measures are in place per the attached site plans, there is no reason for the installation and use of a septic system of the proposed size to interfere with the wetlands' ability to serve as a wildlife habitat.

Summary

In short, the installation of a septic system suitable for a four-bedroom home in the upland review area surrounding Wetlands 1 and 2 is not expected to decrease the wetlands' functionality in retaining toxicants, removing nutrients, and serving as a unique wildlife habitat.
Sincerely,

Molly K. Ahern

Molly K. Ahern, MESM
Soil Scientist, CLA Engineers
Norwich, CT

Appendix A: Soil Map

Adapted from Web Soil Survey, U.S. Geological Survey, U.S. Department of Agriculture

Soil Map—State of Connecticut, Eastern Part
(7880 - 234 Bloomingdale Rd)

Map Scale: 1:1,550 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut, Eastern Part
Survey Area Data: Version 1, Sep 15, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 14, 2022—Oct 6, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
29B	Agawam fine sandy loam, 3 to 8 percent slopes	4.8	54.9%
61C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes, very stony	0.0	0.5%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	0.1	0.7%
103	Rippowam fine sandy loam	3.8	43.9%
Totals for Area of Interest		**8.7**	**100.0%**

Appendix B: NDDB Map for Waterford, CT

Updated June 2024

Natural Diversity Data Base Areas

WATERFORD, CT

June 2024

State and Federal Listed Species

Critical Habitat

Town Boundary

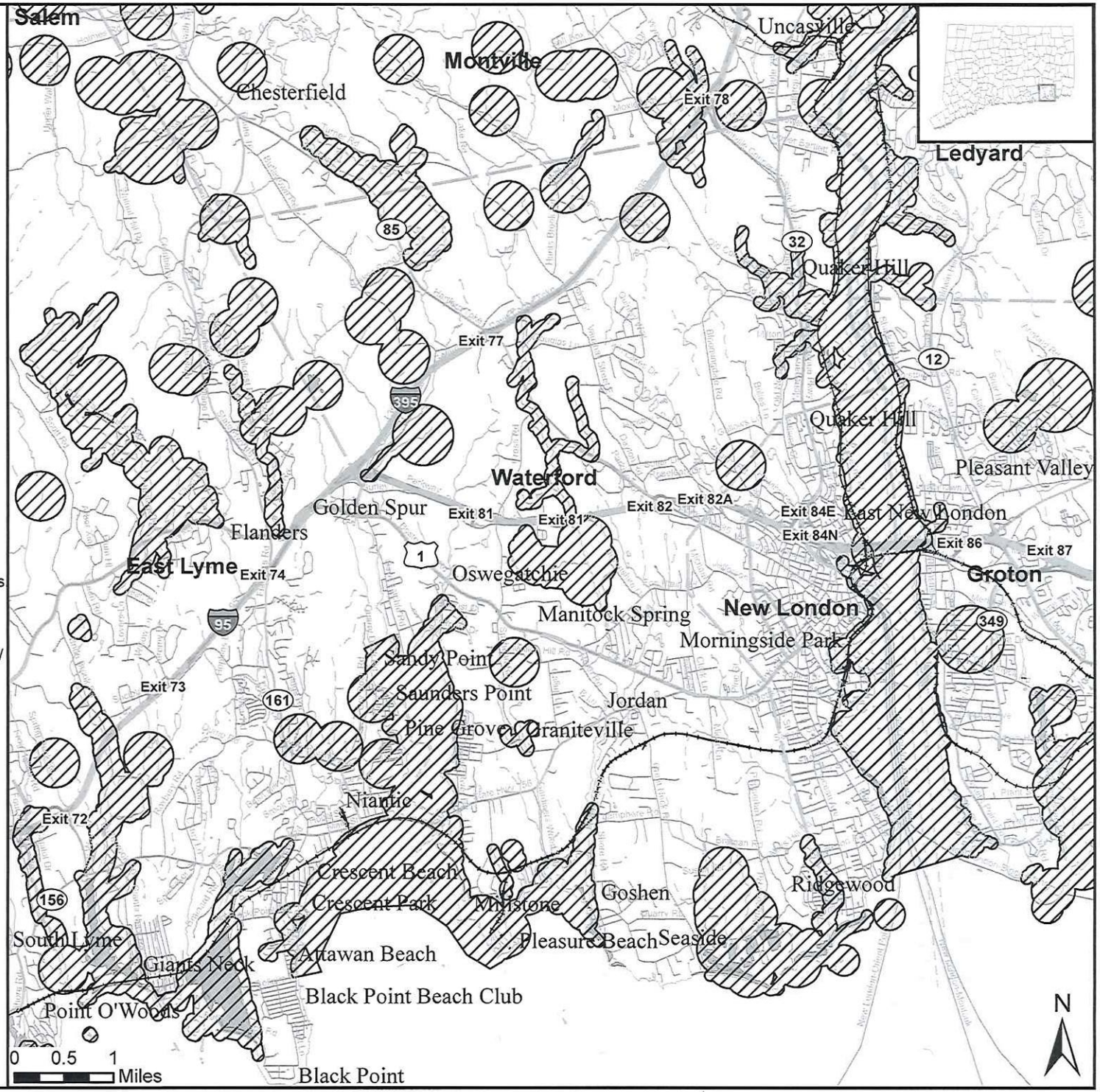
NOTE: This map shows known locations of State and Federal Listed Species and Critical Habitats. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a variety of data sources . Exact locations of species have been buffered to produce the generalized locations.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas If the project is within a hatched area there may be a potential conflict with a listed species. For more information, use DEEP ezFile https://filings.deep.ct.gov/DEEPPortal/ to submit a Request for Natural Diversity Data Base State Listed Species Review or Site Assessment. More detailed instructions are provided along with the request form on our website. https://portal.ct.gov/deep-nddbrequest

Use the CTECO Interactive Map Viewers at http://cteco.uconn.edu to more precisely search for and locate a site and to view aerial imagery with NDDB Areas.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)
79 Elm St, Hartford, CT 06106
email: deep.nddbrequest@ct.gov
Phone: (860) 424-3011

Connecticut
Department of Energy & Environmental Protection



Appendix C: Fish Surveys

Adapted from CTECO DEEP Community Fisheries Data

Samples collected downstream of the property Hunts Brook

Sample Year	2013
Sample ID	151362013
American Eel	16
Blacknose Dace	2
White Sucker	3
Sample Year	1993
Sample ID	151361993
Aeshnidae	1
Athericidae	1
Baetidae	1
Brachycentridae	1
Chironomidae	1
Corydalidae	1
Elmidae	1
Glossosomatidae	1
Gomphidae	1
Heptageniidae	1
Hydropsychidae	1
Isonychiidae	1
Leptophlebiidae	1
Leuctridae	1
Limnephilidae	1
Perlidae	1
Philopotamidae	1
Pyralidae	1
Rhyacophilidae	1

Appendix D: Army Corps Wetland Assessment Sheet and Species List

Wetland Function-Value Evaluation Form

Total area of wetland 3278 ft² Human made? no Is wetland part of a wildlife corridor? no or a "habitat island"? no

Adjacent land use residential Distance to nearest roadway or other development

Dominant wetland systems present PFO1E Contiguous undeveloped buffer zone present yes

Is the wetland a separate hydraulic system? yes If not, where does the wetland lie in the drainage basin? /

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. 7880-WL1/2

Latitude 41.401 Longitude -72.121

Prepared by: MA Date 8/28/24

Wetland Impact:
Type none Area /

Evaluation based on:
Office ✓ Field ✓

Corps manual wetland delineation completed? Y ____ N ✓

Function/Value	Suitability Y / N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	N			not associated w/ watercourse
Floodflow Alteration	N			small area, no watercourse
Fish and Shellfish Habitat	N			unsuitable for fish
Sediment/Toxicant Retention	Y	1,2,3,4,5	Y	evidence of pollution found in WL
Nutrient Removal	Y	3,4,5,7,8,10	Y	poorly drained soils abundant
Production Export	N			little evidence of production
Sediment/Shoreline Stabilization	N			no real "shoreline" due to WL size
Wildlife Habitat	Y	3,4,5,7,8,16,18,20	Y	evidence of deer presence nearby, potential vernal pool
Recreation	N			non-public land
Educational/Scientific Value	N			inaccessible to schools/public
Uniqueness/Heritage	N			no public wetland access
Visual Quality/Aesthetics	Y	1,3,5,8,12		no public access
ES Endangered Species Habitat	N			no state listed species found (NDDB)
Other				

* Refer to backup list of numbered considerations.

Notes: