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Civil • Structural • Survey

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May 13, 2026

Douglas K. Brush, Chair
Inland Wetlands Commission
Town of Montville
310 Norwich-New London Turnpike
Uncasville, CT 06382

Re: Town of Montville
Maple Avenue Improvement (Final Phase) – Inland Wetland Letter
CLA-7928U

Dear Mr. Brush:

On behalf of the Town of Montville, CLA Engineers has performed a functional evaluation of the inland wetlands at the referenced project location and assessed the site to provide a basis for determining the potential for impacts associated with the proposed improvements to Maple Avenue. Details of the proposed development parcel are presented in the attached site plans.

The inland wetland boundary was drawn using aerial imagery by Kyle Lynch (CLA Engineers) in April 2026. The wetland boundary and proposed roadway improvements are shown on the plans prepared by CLA Engineers dated 3/14/2026. These data were augmented with additional online information from CTDEEP, USFWS, USGS, and the Town of Montville GIS Viewer.

Site Setting

The project site consists of approximately 5,835 L.F. of Maple Avenue which starts at Route 163 and ends at the entrance road to Montville DPW. The site is completely impervious consisting of bituminous asphalt with multiple catch basins. Rockland Pond borders Maple Avenue at the beginning near Route 163 but eventually tapers away. There are some wetlands near the site on Maple Avenue at approximately Station 12+50 & 33+00 on the project plans. All these wetlands drain into Oxoboxo Brook, a tributary to the Thames River and Long Island Sound.

The surrounding parcels are zoned as residential (R20 & R40), light industrial (LI), industrial (I), and government (GOV). These consist of single-family homes, industrial buildings, education facilities, government buildings, and equipment parking and staging areas.

Soils

The upland soils mapped by NRCS are listed in the table below. There are no hydric soils mapped on the property by NRCS. Additional descriptive details are provided in an NRCS soil report included as Appendix A.

Table 1 - Soil Types and Properties at the Maple Avenue Site

<u>Soil Series</u>	<u>Parent Material</u>	<u>Drainage Class</u>	<u>Texture/Characteristics</u>
Merrimac (34B)	Loamy glaciofluvial deposits	Somewhat excessively drained	Fine sandy loam to stratified gravel to very gravelly sand
Hinkley (38C)	Sand and gravelly glaciofluvial deposits	Excessively drained	Loamy sand to very gravelly sand
Paxton and Montauk (84D)	Coarse loamy lodgment till	Well drained	Fine sandy loam to gravelly fine sandy loam

The Merrimac series consists of very deep, somewhat excessively drained soils formed in outwash. They are nearly level through very steep soils on outwash terraces and plains and other glaciofluvial landforms. The Hinkley series consists of very deep, excessively drained soils formed in glaciofluvial materials. They are nearly level through very steep soils on outwash terraces, outwash plains, outwash deltas, kames, kame terraces, and eskers. The Paxton series consists of well drained loamy soils formed in lodgment till. The soils are very deep to bedrock and moderately deep to a densic contact. They are nearly level to steep soils on hills, drumlins, till plains, and ground moraines. The Montauk series consists of well drained soils formed in lodgment or flow till derived primarily from granitic materials with lesser amounts of gneiss and schist. The soils are very deep to bedrock and moderately deep to a densic contact. These soils are on upland hills and moraines.

Wetland Characteristics

Classification

The National Wetlands Inventory

(NWI <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>) does show the onsite wetlands. Rockland pond is classified as both a PABHx and a PEM1F. The description of this classification is provided below.

Classification code: PABHx

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 Aquatic Bed (AB): Includes wetlands and deepwater habitats dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years.

Water Regime Permanently Flooded (H): Water covers the substrate throughout the year in all years.

Special Modifier Excavated (x): This Modifier is used to identify wetland basins or channels that were excavated by humans.

Classification code: PEM1F

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 Emergent (EM): Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.

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 Semipermanently Flooded (F): Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface.

Wetland hydrology

There is one regulated area on the project site called Rockland Pond. Rockland pond has a restricted outlet due to being dammed and is fed by Wheeler Pond. It is also likely hydrologically connected to groundwater due to being underlain by gravel deposits. Rockland Pond feeds into Oxoboxo Brook, a tributary to the Thames River and Long Island Sound. There is another nearby wetland at Station 33+00 which is fed into by an unnamed watercourse and eventually drains into Oxoboxo Brook as well.

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 December 2025 update of the CTDEEP NDDB.
2. The local zoning of surrounding parcels is residential (R20 & R40), light industrial (LI), industrial (I), and government (GOV) according to the Town Zoning Map dated April 13,

2026. These consist of single-family homes, industrial buildings, education facilities, government buildings, and equipment parking and staging areas.
3. The wetlands are underlain by glacial lodgment till and sandy and gravelly glaciofluvial deposits around its edges per available online mapping. Detailed soil mapping from the U.S. Web Soil Survey is included within Appendix A.
 4. Runoff from both the road and surrounding industrial sites currently enters the Rockland Pond.
 5. This project proposes road reclamation and minimal ground disturbance.

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>). It is important to note that the wetland at Station 33+00 is not on the project site and is on private property. Without being able to access this wetland, a proper function analysis cannot be performed. The assessment is included in Appendix B and it revealed that Rockland Pond has the following principal functions:

1. **Groundwater Recharge/Discharge:** This wetland is underlain by gravel and stratified drift and likely has a connection to groundwater. There are also multiple parcels downstream of this wetland which have private water wells.
2. **Floodflow Alteration:** Rockland Pond has a constricted outlet due to the presence of a dam. This slows peak flow during storm events and there is lot of vegetation and shallow slopes around some of the edges, providing flood storage.
3. **Fish and Shellfish Habitat:** There is a lot of open water habitat with enough depth and SAV that can support healthy fish populations. CTDEEP has also reported multiple fish species during fish counts both upstream and downstream of this wetland.
4. **Sediment/Toxicant Retention:** The surrounding areas consist of mainly roads and industrial buildings, and the pond likely receives excess sediment and polluted runoff water from these areas.
5. **Nutrient Removal:** This wetland is surrounded by lots of impervious areas and potential sources of excess nutrients. This wetland has enough vegetation and long enough retention time to treat and attenuate the excess nutrients.
6. **Production Export:** Rockland Pond has dense vegetation around its edges and after viewing past aerial imagery, there is a lot of algae and aquatic vegetation growing in the summer. This indicates that this wetland is a highly productive system.
7. **Wildlife Habitat:** This wetland contains habitat for aquatic species and has multiple food sources throughout. During a field visit, CLA noted high avian utilization around the edges of this wetland.
8. **Uniqueness/Heritage:** This wetland is dammed and was historically used for hydropower for mills in the area. It is also an important habitat for wildlife species and serves many functions.

Potential for Impacts

As shown on the project plans, the following activities are planned.

1. Cold reclaim and mill and overlay existing pavement
2. Installation of inlet sediment control devices
3. Cut & match pavement
4. Replacement of existing 15" pipe under midline of road with new 15" HDPE pipe
5. Installation of bituminous concrete curb and sidewalk
6. Removal of small area of existing concrete curbing and provide full depth pavement
7. Replace some existing CB tops with new type "C-L" CB top
8. Replace some existing CB tops with new type "C" CB top
9. Replacement of guard rails near Rockland Pond

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

Rockland Pond:

1. **Groundwater Recharge/Discharge:** This project does not propose any wetland disturbance and will not alter this wetlands connection to groundwater.
2. **Floodflow Alteration:** There will be no additional drainage entering this resource and there will not be any disturbance in the wetlands.
3. **Fish and Shellfish Habitat:** The proposed activity will not alter the wetlands or any fish habitat. While there will be some potential exposed areas and new temporary sources of sediment, compost socks will be installed downslope of these areas near Rockland Pond and inlet sediment control devices will be installed in each catch basin. As long as these measures are maintained and inspected regularly during the project, there will be no alteration to this function.
4. **Sediment/Toxicant Retention:** CLA believes that as long as E&S controls are properly maintained and inspected regularly, there will be no additional sediments and toxicants entering the wetlands around the proposed project. This function will remain the same.
5. **Nutrient Removal:** The wetland around the proposed work will not be altered and the proposed E&S should provide adequate treatment for any runoff that may occur. CLA believes that the nutrient removal function of this pond will not be affected.
6. **Production Export:** Since all work is outside of the wetlands, this function will remain the same if E&S is inspected and maintained.
7. **Wildlife Habitat:** No wetland wildlife habitat will be removed or altered, and all runoff from the work site will be treated by the erosion and sedimentation controls put in place.
8. **Uniqueness/Heritage:** CLA believes that since the project does not propose any alteration of wetlands, and E&S will be placed in areas of concern, there should not be any changes to this wetland's uniqueness function.

Wetland at station 33+00:

While a functional assessment cannot be performed due to not having access to the site, it can be assumed that this wetland serves multiple different functions and is an important resource. Given that there is a significant vegetated buffer between this wetland and the type of work being done, there should be little to no impact on this wetland's functions and values.

Summary

This project proposes cold reclamation and milling and overlay of the existing pavement on Maple Avenue. Some old guard railing will be replaced, a few catch basin tops will be replaced, and the addition and removal of some concrete curbs. Compost socks will be installed downslope of the work area along Rockland Pond and inlet sediment control devices will be installed in all catch basin inlets. If proper erosion and sedimentation controls are installed according to the site plans, we do not anticipate the proposed development will have any impact on the functionality of the onsite and nearby wetlands as described above.

Sincerely,

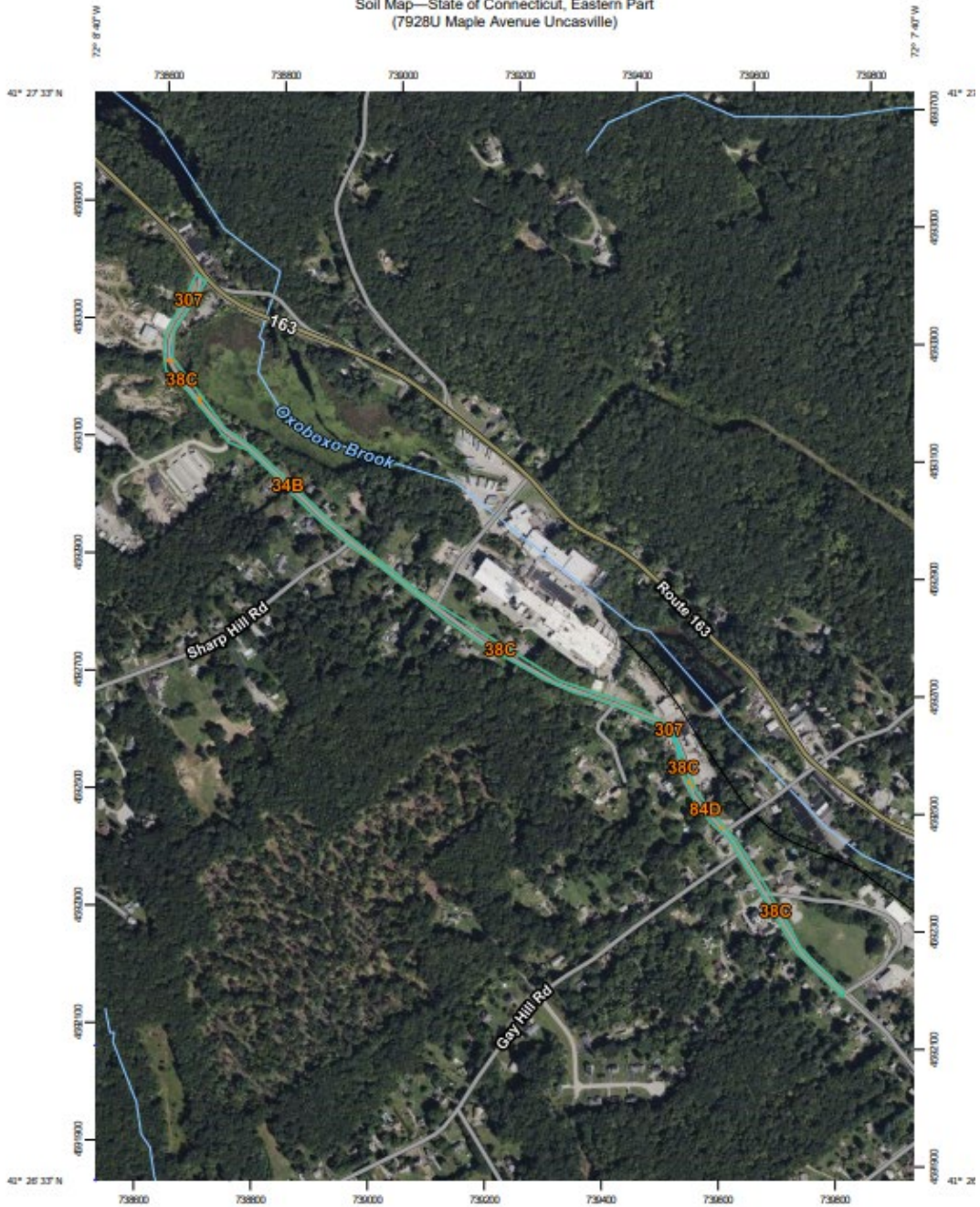
Robert C Russo

Robert C. Russo
Soil Scientist, CLA Engineers
Norwich, CT

Appendix A: Soil Maps

From USGS Web Soil Survey

Soil Map—State of Connecticut, Eastern Part
(7928U Maple Avenue Uncasville)



Map Scale: 1:9,020 if printed on A portrait (8.5" x 11") sheet.
0 100 200 400 600 Meters
0 400 800 1600 2400 Feet
Map projection: Web Mercator Corner coordinates: WGS84 Edge tic: UTM Zone 18N WGS84

MAP LEGEND		MAP INFORMATION
Area of Interest (AOI)	Area of Interest (AOI)	The soil surveys that comprise your AOI were mapped at 1:12,000. Please rely on the bar scale on each map sheet for map measurements.
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	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 6, Sep 16, 2025 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.
	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 Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
34B	Merrimac fine sandy loam, 3 to 8 percent slopes	1.1	21.7%
38C	Hinckley loamy sand, 3 to 15 percent slopes	3.0	60.3%
84D	Paxton and Montauk fine sandy loams, 15 to 25 percent slopes	0.3	5.8%
307	Urban land	0.6	12.2%
Totals for Area of Interest		5.0	100.0%

Appendix B: Army Corps Wetland Assessment Sheets

Wetland Function-Value Evaluation Form

Total area of wetland 8.14.15 Human made? Yes Is wetland part of a wildlife corridor? No or a "habitat island"? Yes
 Adjacent land use Industrial (I) & Residential (R) Distance to nearest roadway or other development 7" → Industrial
 Dominant wetland systems present PABHx Contiguous undeveloped buffer zone present No
 Is the wetland a separate hydraulic system? N If not, where does the wetland lie in the drainage basin? Low
 How many tributaries contribute to the wetland? 5 Wildlife & vegetation diversity/abundance (see attached list)

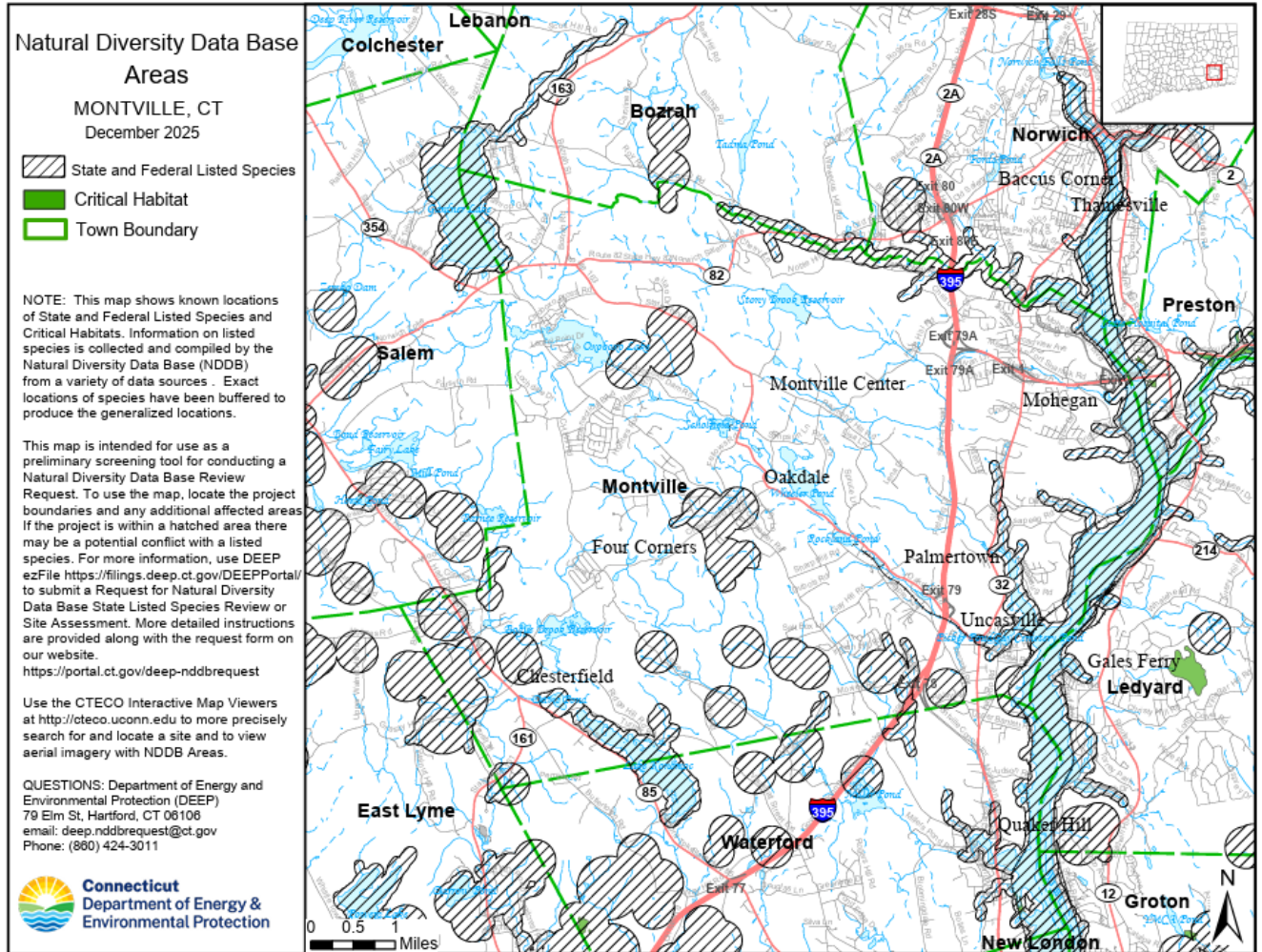
Wetland ID: 7928U
 Latitude 41.4543 Longitude -72.1410
 Prepared by: KL Date 4/28/26
 Wetland Impact: _____ Area: _____
 Evaluation based on:
 Office Field
 Corps manual wetland delineation completed? Y N

Function/Value	Suitability Y/N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	Y	1,2,3,4,5,7,7	✓	Wetland is connected to groundwater. These are aquifers provide water. Absorption of water.
Floodflow Alteration	Y	2,5,6,7,9,10,17	✓	This pond is dammed and has flood storage potential on 10/15/17.
Fish and Shellfish Habitat	Y	3,4,5,6,7,9,10,14,15,17	✓	This pond is deep enough for fish and has SAV for habitat. Fish were seen with oxygen and dissolved by oxygenator.
Sediment/Toxicant Retention	Y	1,2,3,4,5,7,9,11,12,14,15,17	✓	This pond is surrounded by roads and adjacent to highway. It likely (see notes) runs (concrete areas).
Nutrient Removal	Y	2,3,4,5,6,7,10,13,14	✓	There are many sources of debris nutrients around the pond and there is enough bog and long enough retention time to capture water.
Production Export	Y	1,2,4,6,10,14	✓	This pond has a lot of vegetation at its edges and has lots of original growth during the summer.
Sediment/Shoreline Stabilization	Y	4,6,9,12,15	✓	There are some areas where there is a distinct bank but due to the pond having a dam, this makes it a principal.
Wildlife Habitat	Y	2,6,8,9,13,16,17,20,21	✓	There is habitat for aquatic life and lots of wetland vegetation. There was a lot of water 15-16/17.
Recreation	N	5,7,9,17		This is private property and not available to the public.
Educational/Scientific Value	N	5		No access to this wetland that is safe without disturbing it.
Uniqueness/Heritage	Y	4,6,12,14,16,17,21,22,27	✓	This is a dammed pond with natural significance. It is an important wildlife habitat and serves many other.
Visual Quality/Aesthetics	Y	1,2,3,6,9,14	✓	Visually appealing in the surrounding and surrounding area.
Endangered Species Habitat	N			No listed species present.
Other				

Notes: * Refer to backup list of numbered considerations.

Appendix C: Natural Diversity Data Base Map

Town of Montville, CT



Appendix D: Species List

Plant Species:

Common reed (*Phragmites australis*)

Japanese knotweed (*Reynoutria japonica*)

White meadowsweet (*Spiraea alba*)

Cattails (*Typha spp.*)

White waterlily (*Nymphaea odorata*)

Tussock sedge (*Carex stricta*)

Animals:

Song sparrow (*Melospiza melodia*)

Red-winged blackbird (*Agelaius phoeniceus*)