

Soil Resource Consultants

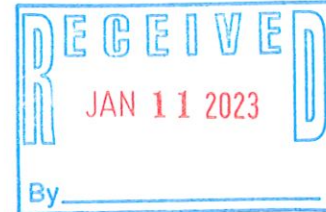
P.O. Box 752

Meriden, CT 06450

December 8, 2022

SRC Job No. 20-44

Gregg Fedus
Fedus Engineering, LLC
70 Essex Street
Mystic, CT 06355



Dear Mr. Fedus:

**Re: Wetland Functions and Values Assessment – 2040 New London Turnpike
– Uncasville, CT**

At your request, I have completed an onsite investigation of this site. The purpose of my investigation was evaluate the existing character and functioning of the onsite wetlands and watercourse resources associated with this proposed commercial development. As part of my evaluation I utilized site plan drawings prepared by your office October 3, 2022. An impact assessment of the proposed development's potential for significant adverse impacts to the identified wetland functions and values is also presented later in this report. I also have researched the CT DEP Natural Diversity Database for any listing of plant or animal specie sightings on or nearby to this development. The latest mapping from that agency source shows no indicated that the subject property is within a shaded area. I have attached a copy of the relevant section of the map with printing date.

The subject site is presently vacant. The site is surrounded on all sides by existing paved surfaces and commercial-retail facilities. The site fronts on New London Turnpike along its eastern side. Podurriel Lane borders the site to the North and Occum Lane borders to the South. A large commercial development bordering to the west has a very large paved parking lot and its own storm water management system.

The site presently has vegetative cover consisting of a varied combination of open grass field; scrub shrub woods and woods of mixed age dominated by hardwood trees. The open grass field area where the proposed development is to occur is becoming over grown with numerous volunteer species such as Red Cedar, Red Maple, White Pine, Willows, and other sapling sized trees and shrubs. A large number of "invasive plant species" have established themselves in the development pad area of the site. These invasives include: Multiflora Rose, Phragmites, and Japanese Knotweed.

No direct impacts are proposed to the onsite wetlands and watercourse features on this site. The proposed design has been configured to closely border the delineated intermittent watercourse channel associated with wetland flags WF-1 to WF-7 and WF-40 to WF-43. This intermittent watercourse channel is contained within the limits of an existing ditch created by previous development concepts proposed by others. The channel is approximately 4 feet wide and at most 6-12 inches deep. Above this channel previous grading has extended the area and cross section of the ditch. Channels of this width are generally flagged with a single line of flags.

All inland wetlands and watercourses are indicated on the site plan drawings. Numbered (WFs) sections along wetland boundaries and intermittent watercourse channels were flagged by SRC. Additional wetland boundaries further to the west, which were flagged previously by others are indicated by unnumbered line segments with small triangles pointing toward the wetlands. The unnumbered wetland boundaries flagged by others were investigated by SRC and found to accurately portray the extent of wetlands further to the west of the proposed development area.

WETLAND FUNCTIONS AND VALUES

The US Army Corps of Engineers utilizes an evaluation methodology that provides for a descriptive evaluation of wetland and watercourse resources. The methodology is contained within a document entitled "The Highway Methodology Workbook, Supplement", US Army Corps of Engineers, New England Division, November 1995. Rather than providing a "rating" number or subjective rank such as low, medium, or high, this evaluation approach provides a qualitative description of the physical characteristics of the wetland/watercourse resource, identifies the functions and values exhibited, and these basis for the conclusions using "best professional judgment".

I have prepared a single evaluation for the wetland/watercourse resource area described above. The documentation for each of this evaluation can be found attached to this report.

The following Functions and Values were identified as existing within the wetland resource subareas by the evaluation process. The size of the wetland resource (15,500 s.f.) and its separation from other wetlands has a limiting effect on the levels of functions and values. These functions and values are influenced to impacted by the existing levels of residential development. The levels of human activity and the associated noise levels have already had an impact on the functioning of the subject wetland. No existing wildlife species for example, are likely to be displaced as a result of this project.

Groundwater Recharge/Discharge functioning on this site is a result of a combination of topography, soil characteristics, and surface and ground water flow patterns. Topographic features on this site provide for a west to east flow pattern. Surface flows move to the east where the existing drainage ditch/intermittent watercourse channel collects runoff water and channels it to the north. Soil characteristics that enhance ground water recharge/discharge relate to the coarse textures of the Sutton Soils which allow for excellent infiltration of surface water downward into the soil while allowing for the discharge of excess ground to surface flows.

This existing functioning will not be adversely impacted by the proposed development as the existing flow patterns will not be altered by the development activities. Furthermore, the stormwater quality/detention basin proposed in the northeastern corner of the site will increase stormwater runoff residency time within the basin limits and add to the existing overall ground water recharge functioning.

Sediment/Toxicant Retention functioning is a primary functioning of the subject wetlands. This functioning is a result of the relatively flat grades within the eastern half of the site which along with the sandy soil characteristics will continue to promote sediment and toxicant retention functioning. The irregular topography, sandy soils and thick leaf cover found in the far western side of this site will continue to provide a high level of sediment and toxicant retention.

The proposed water quality/detention basin will also provide a very high level of sediment and toxicant retention functioning based on basin configuration, increased residency time, and the biofiltration component of the basin.

Nutrient Removal is the other primary functioning of the onsite wetland resource areas. This determination of functioning is based on the above described characteristics as well as the ability of the existing dense tree and shrub vegetation to absorb excess nutrients from storm water runoff passing through the wetland. The trees and shrubs will then be able to use the excess nutrients as a food source. The proposed plantings within the storm water quality/detention basin have been selected for their proven ability to remove contaminants from the storm water column including heavy metals.

Wildlife Habitat is the fourth and final function observed within this resource area. This wetland provides an "island" type of habitat due to its existing physical and biological characteristics. This resource area does provide functioning as a stop-over point for wildlife species such as small birds as they move through the area. Other species can utilize this wetland resource area for localized habitat needs. Food supplies, water sources, nesting sites, and cover protection are available. This wetland would not be utilized by species that are sensitive to high levels of human activity.

Wildlife habitat functioning has already adjusted to the existing high levels of human activity and noise generation. The existing level of habitat functioning is not likely to be altered or significantly impacted by the proposed development on this property. For example, no wildlife species decline in either numbers or diversity should be expected.

Conclusion

In my professional opinion, the proposed of development of a convenience store/gas station on this property as presently configured does not represent a likelihood for significant adverse environmental impact to the existing functioning of the onsite wetlands or their long term functioning at present levels.

If you have any questions regarding this report, or need additional assistance with this site, please contact me. I am available to attend Inland Wetland Commission meetings and site walks.

Sincerely,

A handwritten signature in blue ink, appearing to read "David H. Lord".

David H. Lord
Certified Soil Scientist
& Environmental Consultant




APPENDIX

Natural Diversity Data Base

Areas

MONTVILLE, CT

June 2022

-  State and Federal Listed Species
-  Critical Habitat
-  Town Boundary

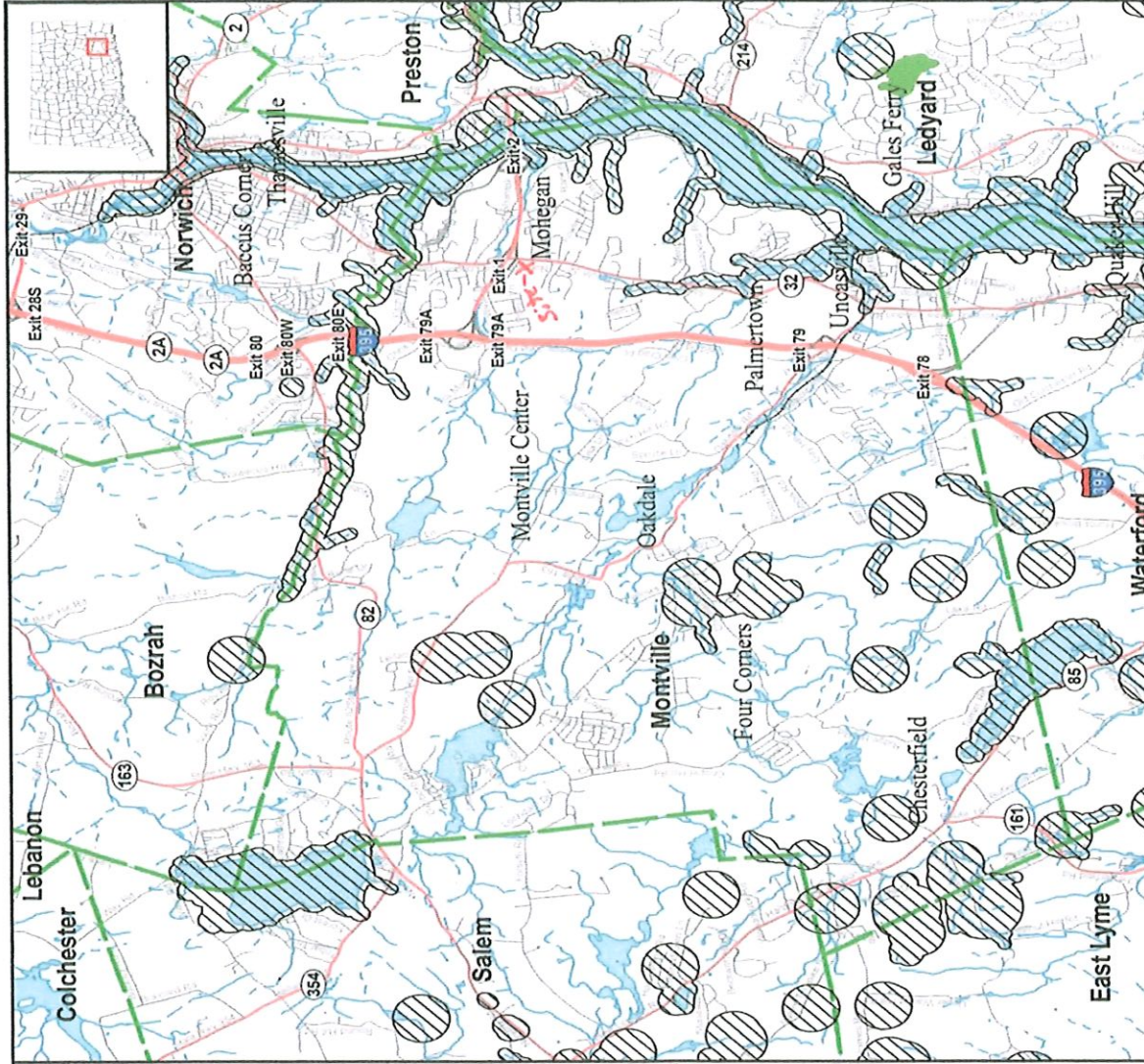
NOTE: This map shows general locations of State and Federal Listed Species and Critical Habitats. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a variety of data sources. Exact locations of species have been buffered to produce the generalized 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, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided 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



The
Highway
Methodology
Workbook
Supplement



US Army Corps
of Engineers®
New England District

Wetland Functions and Values
A Descriptive Approach

What are wetland functions and values?

Wetland functions and values form a very important part of Section 404 permit decisions by the Corps. **Functions** are self-sustaining properties of a wetland ecosystem that exist in the absence of society. Functions result from both living and non-living components of a specific wetland. These include all processes necessary for the self-maintenance of the wetland ecosystem such as primary production and nutrient cycling. Therefore, functions relate to the ecological significance of wetland properties without regard to subjective human values.


For example, a wetland that has slowly moving water performs the function of retaining sediments and toxicants. That is, the physical characteristic of a wetland that causes surface water to move slowly serves to let suspended particulates settle out of that water. This function traps sediments carried to it in runoff from uplands or upstream areas and clarifies the water. Identification of that function helps the Corps evaluate (1) whether the impacts of a project may impair that function and (2) whether such impacts are permissible.



Great Blue Heron

Values are benefits that derive from either one or more functions and the physical characteristics associated with a wetland. Most wetlands have corresponding societal value. This is recognized in various federal, state, and local wetland legislation that was enacted to protect these resources. The value of a particular wetland function, or combination thereof, is based on human judgment of the worth, merit, quality, or importance attributed to those functions. For example, a particular wetland might be

considered valuable because it is known to store flood waters upgradient or adjacent to a developed area. That function is valuable to society because it attenuates flood waters which lessens the destructive severity of flood events. Another wetland might be valued because its combination of diverse wildlife habitat and picturesque setting offers various recreational and educational opportunities. The judgment of value is based on the opinion of recognized experts whose views are ultimately weighed and considered by the Corps in its permit process.



What wetland functions and values are considered by the Corps in its Section 404 permit process?

The 13 functions and values that are considered by the Regulatory Branch for any Section 404 wetland permit are listed below. The list includes eight functions and five values. Values are grouped together at the end of the list.

These are not necessarily the only wetland functions and values possible, nor are they so precisely defined as to be unalterable. However, they do represent the best working "palette" of descriptors which can be used to paint an objective representation of the wetland resources associated with a proposed project.



GROUNDWATER RECHARGE/DISCHARGE — This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. Recharge should relate to the potential for the wetland to contribute water to an aquifer. Discharge should relate to the potential for the wetland to serve as an area where groundwater can be discharged to the surface.



FLOODFLOW ALTERATION (Storage & Desynchronization) — This function considers the effectiveness of the wetland in reducing flood damage by attenuation of floodwaters for prolonged periods following precipitation events.



FISH AND SHELLFISH HABITAT — This function considers the effectiveness of seasonal or permanent waterbodies associated with the wetland in question for fish and shellfish habitat.



SEDIMENT/TOXICANT/PATHOGEN RETENTION — This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens.



NUTRIENT REMOVAL/RETENTION/TRANSFORMATION — This function relates to the effectiveness of the wetland to prevent adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, or estuaries.

PRODUCTION EXPORT (Nutrient) — This function relates to the effectiveness of the wetland to produce food or usable products for humans or other living organisms.



SEDIMENT/ShORELINE STABILIZATION — This function relates to the effectiveness of a wetland to stabilize streambanks and shorelines against erosion.



WILDLIFE HABITAT — This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and/or migrating species must be considered. Species lists of observed and potential animals should be included in the wetland assessment report.



RECREATION (Consumptive and Non-Consumptive) — This value considers the effectiveness of the wetland and associated water-courses to provide recreational opportunities such as canoeing, boating, fishing, hunting, and other active or passive recreational activities. Consumptive activities consume or diminish the plants, animals, or other resources that are intrinsic to the wetland, whereas non-consumptive activities do not.



EDUCATIONAL/SCIENTIFIC VALUE — This value considers the effectiveness of the wetland as a site for an “outdoor classroom” or as a location for scientific study or research.



UNIQUENESS/HERITAGE — This value relates to the effectiveness of the wetland or its associated waterbodies to produce certain special values. Special values may include such things as archaeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geologic features.



VISUAL QUALITY/AESTHETICS — This value relates to the visual and aesthetic qualities of the wetland.



THREATENED or ENDANGERED SPECIES HABITAT — This value relates to the effectiveness of the wetland or associated waterbodies to support threatened or endangered species.




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Natural Diversity Data Base

Areas

MONTVILLE, CT

June 2022

-  State and Federal Listed Species
-  Critical Habitat
-  Town Boundary

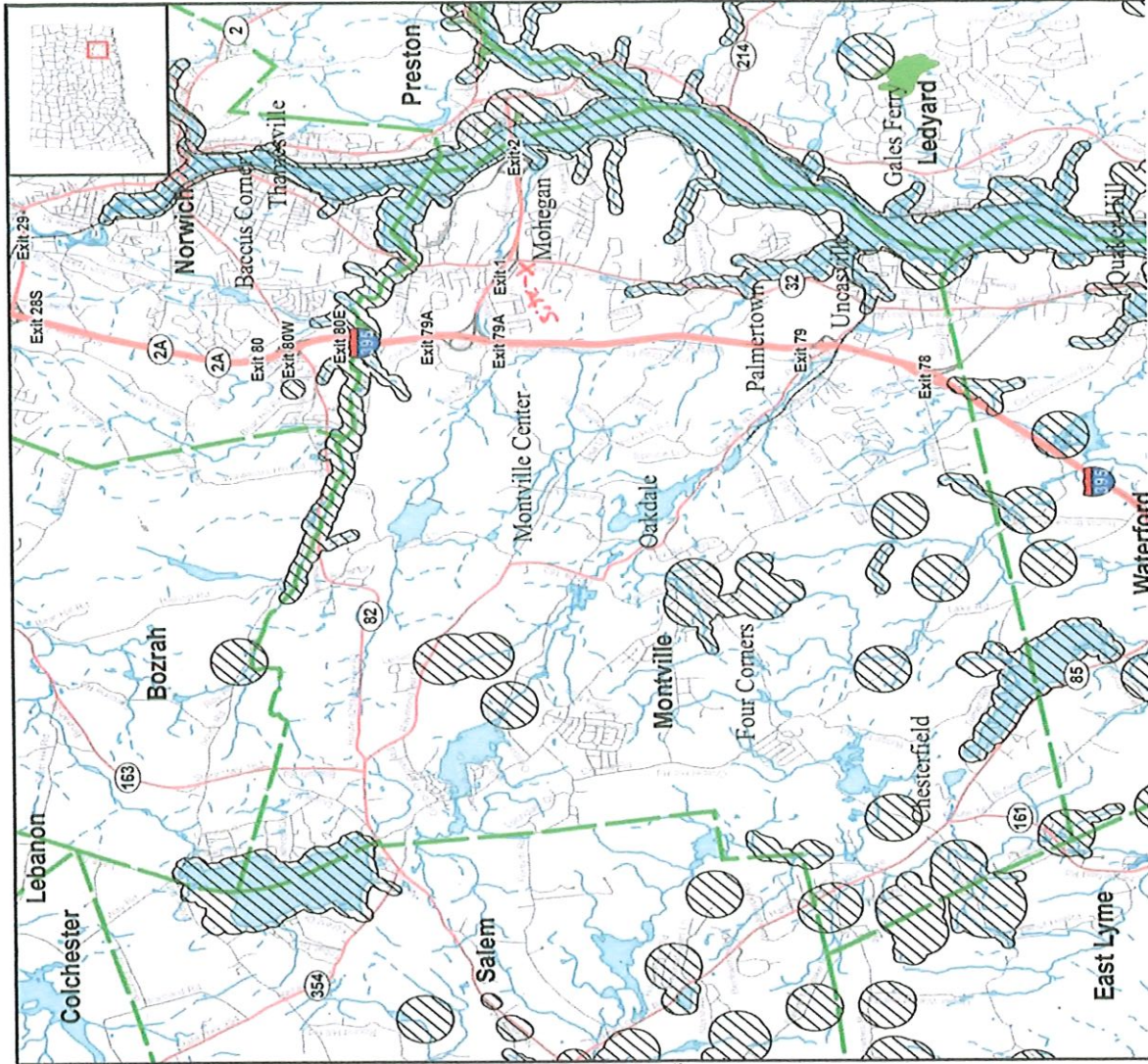
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QUESTIONS: Department of Energy and Environmental Protection (DEEP)
79 Elm St, Hartford, CT 06106
email: deep.nddbrequest@ct.gov



APPENDIX A: ACOE HIGHWAY METHODOLOGY CRITERIA

GROUNDWATER RECHARGE/DISCHARGE - Considers the potential for groundwater recharge and/or discharge.

CONSIDERATIONS/QUALIFIERS

1. Public or private wells occur downstream of the wetland.
2. Potential exists for public or private wells downstream of the wetland.
3. Wetland is underlain by stratified drift.
4. Gravel or sandy soils present in/or adjacent to the wetland.
5. Fragipan does not occur in the wetland.
6. Fragipan, impervious soils, or bedrock, does occur in the wetland.
7. Wetland is associated with a perennial or intermittent watercourse.
8. Signs of groundwater recharge are present or piezometer data demonstrates recharge.
9. Wetland is associated with a watercourse but lacks a defined outlet or contains a constricted outlet.
10. Wetland contains only an outlet.
11. Groundwater quality of stratified drift aquifer of wetland meets drinking water standards.
12. Quality of water associated with the wetland is high.
13. Signs of groundwater discharge are present (e.g. springs).
14. Water temperature suggests it is a discharge site.
15. Wetland shows signs of variable water levels.
16. Piezometer data demonstrates discharge.

FLOODFLOW ALTERATION - Considers the effectiveness of the wetland in reducing flood damage by water retention.

CONSIDERATIONS/QUALIFIERS

1. Area of this wetland is large relative to its watershed.
2. Wetland occurs in the upper portions of its watershed.
3. Effective flood storage is small or non-existent upslope of or above the wetland.
4. Wetland watershed contains a high degree of impervious surfaces.
5. Wetland contains hydric soils which are able to absorb and detain water.
6. Wetland exists in a relatively flat area that has flood storage potential.
7. Wetland has an intermittent outlet, ponded water, or signs are present of variable water level.
8. During flood events, wetland retains higher volumes of water than under normal rainfall events.
9. Wetland receives and retains overland or sheet flow runoff from surrounding uplands.
10. In the event of a large storm, wetland may receive and detain excessive flood water from watercourse.
11. Valuable properties or resources are located in or near the floodplain downstream from wetland.
12. The watershed has a history of economic loss due to flooding.
13. This wetland is associated with one or more watercourses.
14. This wetland watercourse is sinuous or diffuse.
15. This wetland outlet is constricted.
16. Channel flow velocity is affected by this wetland.
17. Land uses downstream are protected by this wetland.
18. This wetland contains a high density of vegetation.

FISH AND SHELLFISH HABITAT - Considers effectiveness of watercourse associated with wetland for fish habitat.

CONSIDERATIONS/QUALIFIERS

1. Forest land dominant in the watershed above this wetland.
2. Abundance of cover objects present.
3. Size of this wetland is able to support large fish/shellfish populations.
4. Wetland is part of a larger, contiguous watercourse.
5. Wetland has sufficient size/depth in open water so as not to freeze solid, retains some open water in winter.
6. Stream width (bank to bank) is more than 50 feet.
7. Quality of the watercourse associated with wetland able to support healthy fish/shellfish populations.
8. Streamside vegetation provides shade for the watercourse.
9. Spawning areas are present (submerged vegetation or gravel beds).
10. Food is available to fish/shellfish populations within this wetland.
11. Barrier(s) to anadromous fish (dams, including beaver dams, water falls, road crossing, etc.) are absent from stream.
12. Evidence of fish is present.

13. Wetland is stocked with fish.
14. The watercourse is persistent.
15. Man-made streams are absent.
16. Water velocities are not too excessive for fish usage.
17. Defined stream channel is present.

SEDIMENT/TOXICANT/PATHOGEN RETENTION -Considers effectiveness of the wetland as a trap for sediments, toxicants, or pathogens in runoff from surrounding uplands, or upstream eroding wetland areas.

CONSIDERATIONS/QUALIFIERS

1. Potential sources of excess sediment are in the watershed above the wetland.
2. Potential or known sources of toxicants are in the watershed above the wetland.
3. Opportunity for sediment trapping by slow moving water or deepwater habitat are present in this wetland.
4. Mineral, fine grained, or organic soils are present.
5. Long duration water retention time is present in this wetland.
6. Public or private water sources occur downstream.
7. The wetland edge is broad and intermittently aerobic.
8. The wetland is known to have existed for more than 50 years.
9. Drainage ditches have not been constructed in the wetland.
10. Wetland is associated with an intermittent or perennial stream, or a lake.
11. Channelized flows have visible velocity decreases in the wetland.
12. Effective floodwater storage in wetland is occurring. Areas of impounded open water are present.
13. No indicators of erosive forces are present. No high water velocities are present.
14. Diffuse water flows are present in the wetland.
15. Wetland has a high degree of water and vegetation interspersion.
16. Dense vegetation provides opportunity for sediment trapping and/or signs of sediment accumulation are present.

NUTRIENT REMOVAL/RETENTION/TRANSFORMATION -Considers effectiveness of wetland as a trap for nutrients in runoff from uplands or contiguous wetlands, and ability of wetland to process these nutrients into other trophic levels.

CONSIDERATIONS/QUALIFIERS

1. Wetland is large relative to the size of its watershed.
2. Deep water or open water habitat exists.
3. Overall potential for sediment trapping exists in the wetland.
4. Potential sources of excess nutrients present in the watershed above the wetland.
5. Wetland saturated for most of the season. Pondered water is present in the wetland.
6. Deep organic/sediment deposits are present.
7. Slowly drained mineral, fine grained, or organic soils, are present.
8. Dense vegetation is present.
9. Emergent vegetation and/or dense woody stems are dominant.
10. Aquatic diversity/abundance sufficient to utilize nutrients.
11. Opportunity for nutrient attenuator exists.
12. Vegetation diversity/abundance sufficient to utilize nutrients.
13. Waterflow through this wetland is diffuse.
14. Water retention/detention time in this wetland is increased by constricted outlet or thick vegetation.
15. Water moves slowly through this wetland.

PRODUCTION EXPORT (Nutrient) - Considers effectiveness of wetland to produce food or usable products.

CONSIDERATIONS/QUALIFIERS

1. Wildlife food sources grow within this wetland.
2. Detritus development is present within this wetland
3. Economically or commercially used products found in this wetland.
4. Evidence of wildlife use found within this wetland.
5. Higher trophic level consumers are utilizing this wetland.
6. Fish or shellfish develop or occur in this wetland.
7. High vegetation density is present.
8. Wetland exhibits high degree of plant community structure/species diversity.
9. High aquatic diversity/abundance is present.
10. Nutrients exported in wetland watercourses (permanent outlet present).
11. "Flushing" of relatively large amounts Of organic plant material occurs from this wetland.
12. Wetland contains flowering plants which are used by nectar-gathering insects.
13. High production levels occurring however, no visible signs of export (assumes export is attenuated).

SEDIMENT/ShORELINE STABILIZATION - Considers effectiveness of wetland to stabilize stream banks, shorelines.

CONSIDERATIONS/QUALIFIERS

1. Indications of erosion, siltation present
2. Topographical gradient is present in wetland.
3. Potential sediment sources are present up-slope.
4. No distinct shoreline or bank is evident between the waterbody and the wetland or upland.
5. A sharp bank between the open waterbody or stream and the adjacent land exists with dense roots throughout.
6. Wide wetland (>10') bordering watercourse, lake, or pond.
7. High flow velocities in the wetland.
8. Potential sediment sources present upstream.
9. The watershed is of sufficient size to produce channelized flow.
10. Open water fetch is present.
11. Boating activity is present.
12. Dense vegetation is bordering watercourse, lake, or pond.
13. High percentage of energy absorbing emergents and/or shrubs bordering watercourse, lake or pond.
14. Vegetation comprised of large trees and shrubs which withstand floods and stabilize shoreline on a large scale (feet).
15. Dense herb layer which stabilizes sediments/shoreline on a small scale (inches) during flood erosive events.

WILDLIFE HABITAT - Considers effectiveness of wetland to provide habitat for various resident and migrant animals.

CONSIDERATIONS/QUALIFIERS

1. Wetland is not degraded by human activity.
2. Water quality of the watercourse, pond, or lake wetland meets or exceeds Class A or B standards.
3. Wetland is not fragmented by development.
4. Upland surrounding this wetland is undeveloped.
5. 40% of wetland edge bordered by upland wildlife habitat (e.g. woodland, active farmland, idle land) 500' wide.
6. Wetland contiguous with other wetland systems connected by watercourse or lake.
7. Wildlife overland access to other wetlands is present.
8. Wildlife food sources are within this wetland or are nearby.
9. Wetland exhibits a high degree of interspersions of vegetation classes and/or open water.
10. Two or more islands or inclusions of upland within the wetland are present.
11. Dominant wetland class includes deep or shallow marsh or wooded swamp.
12. More than three acres of shallow permanent open water including streams in or adjacent to wetland are present.
13. Density of the wetland vegetation is high.
14. Wetland exhibits a high degree of plant species diversity.
15. Wetland exhibits a high degree of diversity in plant community structure.
16. Plant/animal indicator species present.
17. Animal signs observed (tracks, scats, nesting areas, etc.)
18. Seasonal uses vary for wildlife, wetland appears to support varied population diversity.
19. Wetland contains or has potential to contain a high population of insects.
20. Wetland contains or has potential to contain large amphibian populations.
21. Wetland has a high avian utilization or its potential.
22. Indications of less disturbance-tolerant species present.
23. Signs of wildlife habitat enhancement present (birdhouses, nesting boxes, etc.).

RECREATION - Considers suitability of wetland and associated watercourses to provide recreation.

CONSIDERATIONS/QUALIFIERS

1. Wetland is part of a recreation area, park, forest, or refuge.
2. Fishing is available within or from the wetland.
3. Hunting is permitted in the wetland.
4. Hiking occurs or has potential to occur within the wetland.
5. Wetland is a valuable wildlife habitat.
6. The watercourse, pond, or lake, associated with the wetland is unpolluted.
7. High visual/aesthetic quality of this potential recreation site.
8. Access to water is available at this potential recreation site for boating, canoeing, or fishing.
9. Watercourse associated with this wetland is wide and deep enough to accommodate non-powered boating.

10. Off-road public parking available at the potential recreation site.
11. Accessibility and travel ease is present at this site.
12. The wetland is within a short drive or safe walk from highly populated public and private areas.

EDUCATIONAL/SCIENTIFIC VALUE - Considers suitability of wetland as outdoor classroom or for scientific study.

CONSIDERATIONS/QUALIFIERS

1. Wetland contains or is known to contain threatened, rare, or endangered species.
2. Little or no disturbance is occurring in this wetland.
3. Potential educational site contains a diversity of accessible or potentially accessible wetland classes.
4. Potential educational site is undisturbed and natural.
5. Wetland is considered to be a valuable wildlife habitat.
6. Wetland is located within a nature preserve or wildlife management area.
7. Signs of wildlife habitat enhancement present (bird houses, nesting boxes, food sources, etc.).
8. Off-road parking at potential educational site suitable for school bus access in or near wetland.
9. Potential educational site is within safe walking distance or a short drive to schools.
10. Potential educational site within safe walking distance to other plant communities.
11. Direct access to perennial stream at potential educational site available.
12. Direct access to pond or lake at potential educational site available.
13. No known safety hazards within the potential educational site.
14. Public access to the potential educational site is controlled.
15. Handicap accessibility is available.
16. Site is currently used for educational or scientific purposes.

UNIQUENESS/HERITAGE - Considers effectiveness of the wetland or its waterbodies to provide special values.

CONSIDERATIONS/QUALIFIERS

1. Upland surrounding wetland primarily urban.
2. Upland surrounding wetland developing rapidly.
3. More than 3 acres of shallow permanent open water occur in wetlands (less than 6.6' deep) including streams.
4. Three or more wetland classes present.
5. Deep and/or shallow marsh, or wooded swamp dominate.
6. High degree of interspersed vegetation and/or open water occurring in this wetland.
7. Well-vegetated stream corridor (15 feet on each side of the stream) occurs in this wetland.
8. Potential educational site is within a short drive or a safe walk from schools.
9. Off-road parking at potential educational site is suitable for school buses.
10. No known safety hazards exist within this potential educational site.
11. Direct access to perennial stream or lake at potential educational site.
12. Two or more wetland classes visible from primary viewing locations.
13. Low-growing wetlands (marshes, scrub-shrub, open water) visible from primary viewing locations.
14. Half an acre of open water or 200 feet of stream is visible from the primary viewing locations.
15. Large area of wetland is dominated by flowering plants, plants with vibrant colors in different seasons.
16. Appearance of the wetland visible from primary viewing areas is unpolluted and/or undisturbed.
17. Overall view of the wetland is available from the surrounding upland.
18. Quality of the water associated with the wetland is high.
19. Opportunities for wildlife observations are available.
20. Historical buildings occur within the wetland.
21. Presence of pond or pond site and remains of a dam occur within the wetland.
22. Wetland within 50 yards of the nearest perennial watercourse.
23. Visible stone or earthen foundations, dams, standing structures or associated features occur in wetland.
24. Wetland contains critical habitat for a state or federally listed threatened or endangered species.
25. Wetland is known to be a study site for scientific research.
26. Wetland is a natural landmark or recognized by the natural heritage inventory as exemplary natural area.
27. Wetland has local significance because it serves several functional values.
28. Wetland has biological, geological, or other features which are locally rare or unique.
29. Wetland is known to contain an important archaeological site.
30. Wetland is hydrologically connected to a state or federally designated scenic river.
31. Wetland is located in an area experiencing a high wetland loss rate.

VISUAL QUALITY/AESTHETICS - Considers the visual quality of the wetland.

CONSIDERATIONS/QUALIFIERS

1. Multiple wetland classes visible from primary viewing locations.
2. Emergent marsh and/or open water visible from primary viewing locations.
3. Diversity of vegetation species visible from primary viewing locations.
4. Wetland dominated by flowering plants, or plants which turn vibrant colors in different seasons.
5. Land use surrounding the wetland is undeveloped as seen from primary viewing locations.
6. Visible surrounding land use form contrasts with wetland.
7. Wetland views absent of trash, debris, and signs of disturbance.
8. Wetland is considered to be a valuable wildlife habitat.
9. Wetland is easily accessed.
10. Low noise level at primary viewing locations.
11. Unpleasant odors absent at primary viewing locations.

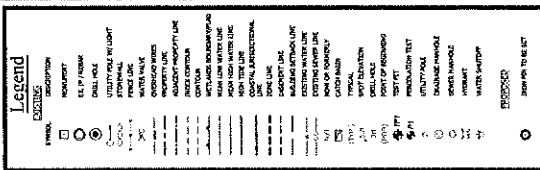
ENDANGERED SPECIES HABITAT- Considers the ability of wetland to support threatened/endangered species.

CONSIDERATIONS/QUALIFIERS

1. Wetland contains or is known to contain threatened or endangered species.
2. Wetland contains critical habitat for a state or federally listed threatened or endangered species.



Scale: 1"=100'



Subject Parcel Information

OWNER: MAGNAN FUGASIN, LLC
2040 NEW ROUTE 32, MONTVILLE, CT
PARCEL ADDRESS: 4 CUSTON POST RD, WATERBURY, CT 06020
MAILING ADDRESS: 103717A
MIL VOLUME 663 PAGE 612
DECD: 116,639 SQ = 2.68 ACRES
ARCA: ZONE X PER 618M MAP # 09011003510
FLOOD ZONE: EFFECTIVE DATE: JULY 18, 2011

Existing Conditions
of
2040 New London Turnpike
(AKA CT RT 32)

Prepared For:

AMER CHOUDRE
October 3, 2022

DRAWING SCALE: 1"=20'

FEDUS ENGINEERING, LLC
CIVIL ENGINEERS
Mailing Address: 20 Green Street Mystic, Connecticut 06355
Office: (860) 536-7290 Fax: (860) 536-1544



WETLANDS DELINEATED BY
DAVID L. LEE, NCE, PROJECT 1

