WORK SHEET 863 DANBURY RD

Functional analysis taken from the publication entitled "The Highway Methodology Workbook *Supplement*, Wetland Functions and Values, *A Descriptive Approach*", prepared by the US Army Corps of Engineers, NEDEP-360-1-30a, September 1999.

WILTON, CT

GROUNDWATER RECHARGE/DISCHARGE

Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
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 associated w/ a watercourse but lacks a defined outlet or has contains a constricted outlet.		✓
10. Wetland contains only an outlet, no inlet.		✓
11. Quality of stratified drift aquifer within or downstream 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.	—	—
17. Other.		

Comments:

Environmental Land Solutions, LLC
Landscape Architects & Site Planners
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Norwalk, CT 06851

FLOODFLOW ALTERATION

Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
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 percent 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 can retain higher water volumes than under normal conditions?		✓
9. Wetland receives and retains overland or sheet flow runoff from surrounding uplands		✓
10. In large storm events, wetland may receive/detain flood water from a nearby watercourse.		✓
11. Valuable properties, structures, or resources are located in or near the floodplain downstream from the 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.	✓	
19. Other.		

Comments:

FISH AND SHELLFISH HABITAT (FRESHWATER)

Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
1. Forest land dominant in the watershed above this wetland.	✓	
2. Abundance of cover objects present.		✓
STOP HERE IF THIS WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE		
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 open water areas of sufficient size to not freeze & retain some open water in winter.		✓
6. Stream width (bank to bank) is more than 50 feet.		✓
7. Quality of the watercourse assoc. with wetland is 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 (such as dams, including beaver dams, waterfalls, road crossing)		✓
are absent from the stream reach associated with this wetland.		
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.	✓	
18. Other.		

Comments:

FISH AND SHELLFISH HABITAT (MARINE)
Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
1. Special aquatic sites (tidal marsh, mud flats, eelgrass beds) are present.		✓
2. Suitable spawning habitat is present at the site or in the area.		✓
3. Commercially or recreationally important species are present or suitable habitat exists.		✓
4. The wetland/waterway supports prey for higher trophic level marine organisms.		✓
5. The waterway provides migratory habitat for anadromous fish.		✓
6. Essential fish habitat as defined by the 1996 Magnuson-Stevens Fishery & Conserv. Act.		✓
7. Other.		

Comments:

SEDIMENT/TOXICANT/PATHOGEN RETENTION

Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
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. Fine grained mineral 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.		✓
STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE.		
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 that may provide sediment trapping or accumulation by dense vegetation present.	✓	
17. Other.		

Comments:

NUTRIENT REMOVAL/RETENTION/TRANSFORMATION

Principal Function: (N)/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
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 are present in the watershed above the wetland.		✓
5. Wetland saturated for most of the season. Ponded water is present in the wetland.		✓
6. Deep organic/sediment deposits are present.		✓
7. Slowly drained fine grained mineral or organic soils are present.		✓
8. Dense vegetation is present.	✓	
9. Emergent vegetation and/or dense woody stems are dominant.	✓	
10. Opportunity for nutrient attenuation exists.	✓	
11. Vegetation diversity/abundance sufficient to utilize nutrients.		✓
STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE.		
12. Waterflow through this wetland is diffuse.		✓
13. Water retention/detention time in wetland is increased by constricted outlet or thick vegetation.	✓	
14. Water moves slowly through this wetland.		✓
15. Other.		

At the pond only

Comments:

PRODUCTION EXPORT (Nutrient)

Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
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 vegetative 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 that are used by nectar-gathering insects.	✓	
13. Indications of export are present.		✓
14. High production levels occurring, however, no visible signs of export (assumes export is attenuated).		✓
15. Other.		

Comments:

SEDIMENT/SHORELINE STABILIZATION

Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
1. Indications of erosion or siltation are present.	✓	
2. Topographical gradient is present in wetland.	✓	
3. Potential sediment sources are present up-slope.	✓	
4. Potential sediment sources are present upstream.	✓	
5. No distinct shoreline or bank is evident between the waterbody and the wetland or upland.		✓
6. A distinct step between the open waterbody or stream and the adjacent land exists (i.e., sharp bank) with dense roots throughout.		✓
7. Wide wetland (> 10') borders watercourse, lake, or pond.		✓
8. High flow velocities in the wetland.		✓
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 border a watercourse, lake, or pond.		✓
14. Vegetation is comprised of large trees and shrubs that withstand major flood events or erosive incidents and stabilize the shoreline on a large scale (feet).	✓	
15. Vegetation is comprised of a dense resilient herbaceous layer that stabilizes sediments and the shoreline on a small scale (inches) during minor flood events or potentially erosive events.		✓
16. Other.		

Comments:

WILDLIFE HABITAT

Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
1. Wetland is not degraded by human activity.		✓
2. Water quality of the watercourse, pond, or lake associated with this wetland meets or exceeds Class A or B standards.	✓	
3. Wetland is not fragmented by development.		✓
4. Upland surrounding this wetland is undeveloped.	✓	
5. More than 40% of this wetland edge is bordered by upland wildlife habitat (e.g., brushland, woodland, active farmland, or idle land) at least 500 feet in width.		✓
6. Wetland is contiguous with other wetland systems connected by a 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 interspersion 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 (less than 6.6 feet deep), including streams in or adjacent to wetland, are present.		✓
13. Density of the wetland vegetation is high. (mostly invasive)	✓	
14. Wetland exhibits a high degree of plant species diversity.		✓
15. Wetland exhibits a high degree of diversity in plant community structure (e.g., tree/shrub/vine/grasses/mosses).		✓
16. Plant/animal indicator species are present. (List species for project).		✓
17. Animal signs observed (tracks, scats, nesting areas, etc.).	✓	
18. Seasonal uses vary for wildlife and wetland appears to support varied population diversity/abundance during different seasons.		✓
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.		✓
23. Signs of wildlife habitat enhancement are present (birdhouses, nesting boxes, food sources, etc.).		✓

22. Indications of less disturbance-tolerant species are present.		✓
24. Other.		

Comments:

RECREATION (Consumptive and Non-Consumptive)
Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
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. The watercourse associated with this wetland is wide and deep enough to accommodate canoeing and/or 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.		✓
13. Other.		

Comments:

EDUCATIONAL/SCIENTIFIC VALUE

Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
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 wetland classes which are accessible or potentially accessible.		✓
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 is within safe walking distance to other plant communities.		✓
11. Direct access to perennial stream at potential educational site is available.		✓
12. Direct access to pond or lake at potential educational site is available.		✓
13. No known safety hazards exist within the potential educational site. N/A		
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.		✓
17. Other.		

Comments:

UNIQUENESS/HERITAGE
Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
1. Upland surrounding wetland is primarily urban.		✓
2. Upland surrounding wetland is developing rapidly.		✓
3. More than 3 acres of shallow permanent open water (less than 6.6 feet deep), including streams, occur in wetlands.		✓
4. Three or more wetland classes are present.		✓
5. Deep and/or shallow marsh or wooded swamp dominate.		✓
6. High degree of interspersion of vegetation and/or open water occur 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 exists at potential educational site.		✓
12. Two or more wetland classes are visible from primary viewing locations.		✓
13. Low-growing wetlands (marshes, scrub-shrub, bogs, open water) are 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 or plants that turn vibrant colors in different seasons.		✓
16. General appearance of the wetland visible from primary viewing locations 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 are found within the wetland.		✓
21. Presence of pond or pond site and remains of a dam occur within the wetland.		✓
22. Wetland is within 50 yards of the nearest perennial watercourse.	✓	

23. Visible stone or earthen foundations, berms, dams, standing structures, or associated features occur within the 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 state natural heritage inventory authority as an exemplary natural community.		✓
27. Wetland has local significance because it serves several functional values.		✓
28. Wetland has local significance because it has biological, geological, or other features that 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.		✓
32. Other.		

Comments:

VISUAL QUALITY/AESTHETICS
Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
1. Multiple wetland classes are visible from primary viewing locations.		✓
2. Emergent marsh and/or open water are visible from primary viewing locations.		✓
3. A diversity of vegetative species is visible from primary viewing locations.		✓
4. Wetland is dominated by flowering plants or plants that 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.	✓	
12. Relatively unobstructed sight line exists through wetland		✓
13. Other.		

Comments:

ENDANGERED SPECIES HABITAT

Principal Function: N/Y

CONSIDERATIONS/QUALIFIERS:	Y	N
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.		✓
3. Other.		

Comments: