AECOM

APPENDIX N2

Wetland Delineation Report
Waterford, Connecticut

Photo credit: Matt Goldsmith, Equinor

June 2023

Prepared for

Beacon Wind LLC

State of Connecticut Wetland Regulations

Connecticut state wetlands include areas that meet the definition set out in Connecticut Inland Wetland and Watercourses Act ("IWWA"; Connecticut General Statutes [CGS] Section 22a-36 through 45) and its implementing regulations (Regulations of Connecticut State Agencies [RCSA] Section 22a-39-1 to 22a-39-15). Typically, the state statute is implemented through the Inland Wetlands and Watercourse Regulations as administered by individual municipalities.

Under Section 2 of the IWWA, a wetland is defined as "land, including submerged land, which consists of poorly drained, very poorly drained, alluvial and floodplain soils as defined by the National Cooperative Soils Survey. Such areas may include filled, graded or excavated sites which possess an aquic (saturated) moisture regime as defined by the United States Department of Agriculture (USDA) Cooperative Soil Survey."

In Connecticut, state and federal wetland boundaries can be different. Most frequently, Connecticut-only jurisdictional wetlands are located in areas of well-drained and moderately-well drained alluvial and floodplain soils, which may not support a wetland plant community and/or exhibit evidence of wetland hydrology which are required to qualify as a federal jurisdictional wetland. As a result, some locations on the Connecticut landscape have separate state and federal wetland boundaries.

Watercourses are defined in the IWWA as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." The IWWA defines Intermittent Watercourses as having a defined permanent channel bed and bank and the occurrence of two of the following: A) evidence of scour or deposits of recent alluvium or detritus, B) the presence of standing or flowing water for a duration of longer than a particular storm incident, or C) the presence of hydrophytic vegetation.

In accordance with applicable federal, state, and local regulatory policies, activities proposed within the state's coastal area must be consistent with the Connecticut Coastal Management Act (CCMA). A portion of the BW2 Waterford, Connecticut parcel is located within the state's Coastal Area and Coastal Boundary resource areas (as defined in CGS SS 22a-93 and described in CGS SS 22a-94).

As noted on the Connecticut Department of Energy and Environmental Protection (CTDEEP) website:

> Connecticut's Coastal Management Program is administered by the CTDEEP and is approved by the National Oceanic and Atmospheric Administration (NOAA) under the federal Coastal Zone Management Act. Under the statutory umbrella of Connecticut's Coastal Management Act (CCMA), enacted in 1980, the Coastal Management Program ensures balanced growth along the coast, restores coastal habitat, improves public access, protects water-dependent uses, public trust waters and submerged lands, and promotes harbor management and facilitates research. The Coastal Management Program also regulates work in tidal, coastal, and navigable waters and tidal wetlands under CCMA (Sections 22a-90 – 22a-112 of the Connecticut General Statutes (CGS)), the Structures Dredging and Fill statutes (CGS Sections 22a-359 – 22a-363f) and the Tidal Wetlands Act (CGS Sections 22a-28 – 22a-35). Development of the shoreline is regulated at the local level through municipal planning and the zoning boards and commissions under the policies of the CCMA, with technical assistance and oversight provided by Program staff.

The area of the shore subject to Connecticut's regulatory authority includes everything waterward of the Coastal Jurisdiction Line (CJL) or within tidal wetlands. The CJL is a land elevation on the North American Vertical Datum of 1988 (NAVD88) and is based on a specific predicted tide; in Waterford, the CJL is set at elevation 2.1 ft (0.64 m)[1] (NAVD88). Accordingly, everything at or below this elevation on the site would be subject to CTDEEP regulatory authority under their Coastal Permit Program; tidal wetlands (as noted above) may occur above this elevation and will also be state-regulated.

In addition, Connecticut towns share in the enforcement of the IWWA and often have additional stipulations for the regulation of wetlands and waterbodies. The Town of Waterford, Connecticut where the Waterford, Connecticut Project Area is located details additional wetlands and waterbody regulations in their Inland Wetland and Watercourse Regulations (Town of Waterford, Connecticut 2008). These regulations identify an "Upland Review Area", which extends 100 ft (30.5 m) into the uplands from the wetland boundary. Most activities with the Upland Review Area would be subject to the review of the town's conservation commission.

Inland surface waters and coastal and marine waters in Connecticut are classified by CTDEEP (Sec. 22a-426-4) and include:

- Inland Surface Waters:
  - **Class AA**: Designated uses: existing or proposed drinking water supply, fish and wildlife habitat, recreational use (may be restricted,) agricultural and industrial supply. Discharges restricted to: discharges from public or private drinking water treatment systems, dredging and dewatering, emergency and clean water discharges.
  - **Class A**: Designated uses: potential drinking water supply; fish and wildlife habitat; recreational use; agricultural and industrial supply and other legitimate uses including navigation. Discharges restricted to: same as allowed in AA
  - **Class B**: Designated uses: recreational use: fish and wildlife habitat; agricultural and industrial supply and other legitimate uses including navigation. Discharges restricted to: same as allowed in A and cooling waters, discharges from industrial and municipal wastewater treatment facilities (providing Best Available Treatment and Best Management Practices are applied), and other discharges subject to the provisions of section 22a-430 CGS.

- Coastal and Marine Surface Waters
  - **Class SA**: Designated uses: marine fish, shellfish and wildlife habitat, shell fish harvesting for direct human consumption, recreation and all other legitimate uses including navigation. Discharges restricted to: same as for AA or A surface waters.
  - **Class SB**: Designated uses: marine fish, shellfish and wildlife habitat, shellfish harvesting for transfer to approved areas for purification prior to human consumption, recreation, industrial and other legitimate uses including navigation. Discharges restricted to: same as for B surface waters.

In addition to wetlands and waterbodies, vernal pools are also regulated under federal and state laws in Connecticut. Vernal pools are unique seasonal depressional wetlands. They fill with shallow water in the early spring and typically dry out by late summer. Vernal pools are defined by a lack of fish and generally contain no inlet or outlet for water. Vernal pools are an important habitat for many native amphibians who utilize the pools for breeding in the spring. Vernal pools are considered watercourses under the IWWA, which affords these pools the same protection status on the state level as a traditional waterbody. The Waterford Inland Wetlands and Watercourses Regulations do not contain additional protection for vernal pools.

April 25, 2022

Kimberly Lanterman
Mott MacDonald
1435 W. Morehead Street, Suite 140
Charlotte, NC 28208

RE: Wetland and Watercourse Delineation Report
Millstone Power Station
Millstone Road, Waterford

Mrs. Lanterman,

At your request, Davison Environmental Connecticut Registered Soil Scientists and a Certified Professional Wetland Scientists Eric Davison and Matthew Davison delineated the Connecticut and Federal jurisdictional wetlands on the above-referenced property on March 16, 25 and April 8, 2022. The results of that work are provided herein.

Introduction

The limits of the delineation area (a.k.a. study area) were provided by the client as illustrated on attached Figure 1 – *Topographic Location Map* and Figure 2 – *Wetlands and Watercourses Map*. The wetland flag locations were field located using a Trimble R1 GNSS Receiver capable of sub-meter accuracy. The purpose of field location of the flags was for illustrative and general planning purposes only. The data accuracy is not compliant with Connecticut General Statutes Section 20-300b survey requirements which would likely be required for local, State and federal permit submittals.

Regulatory Requirements

The regulations governing the delineation of wetlands and watercourses at the site include Connecticut inland wetlands, Connecticut tidal wetlands and Federal wetlands regulated by the U.S. Army Corp of Engineers (USACE). A summary of the regulatory language for each jurisdictional body are described below:

The Connecticut jurisdictional wetlands and watercourses delineation was conducted by a soil scientist according to the requirements of the Connecticut Inland Wetlands and Watercourses Act (P.A. 155). Inland wetlands include soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey as may be amended from time to time, of the National Resources Conservation Service (NRCS). Watercourses means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent. Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: *(A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation*.

Tidal Wetlands are defined as “those areas which border on or lie beneath tidal waters, such as, but not limited to banks, bogs, salt marsh, swamps, meadows, flats, or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters, and whose surface is at or below an elevation of one foot above local extreme high water; and upon which may grow or be capable of growing some, but not necessarily all of the following” (includes plant list) section 22a-29(2).

Federal wetlands were delineated in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0, January 2012). According to this method, three parameters must be satisfied for an area to be mapped as a wetland. These are wetland soils, hydrophytic vegetation, and wetland hydrology. Five two-point transects were conducted to document the Federal wetland boundary. The location of the transects is illustrated on Figure 2. The associated *Wetland Determination Data Forms* are attached. Note that should any pending project not be Self-Verification (SV) eligible under the Connecticut General Permit, additional wetland transects will be required at any locations of proposed direct impact to Federal jurisdictional wetlands.

Methods

Soils, vegetation and hydrology were examined per the aforementioned regulatory requirements. Along each wetland boundary, a hand auger was used to investigate the soil profiles to a minimum depth of 20 inches. This was necessary to determine the U.S. Department of Agriculture drainage class (per State requirements) as well as the presence of hydric soil indicators per the USACE requirements (e.g., reduced matrix, redoximorphic features). Soil profiles were reviewed approximately every 15-30 feet along the boundary, typically digging one hole on either side of the defining boundary to confirm the wetland limit. This information was coupled with observed hydrology (or the presence of hydrologic indicators) as well as the presence of hydrophytic vegetation to determine the final location of the placement of each wetland flag. As is typically the case with most Connecticut wetlands, the boundary of State and Federal jurisdictional wetlands was largely identical. Where they differ, those areas are noted in the following sections.

Results and Wetland Descriptions

Four inland wetlands, one Connecticut jurisdictional intermittent watercourse and one tidal wetland were delineated on the site as summarized below in Table 1. A description of each wetlands soils, hydrology and vegetation are provided in the following sections.

Table 1: Summary of wetlands delineated, flag locations, cover type and regulatory type.

Wetland	Flag Numbers	Cover Types	Regulatory Type
Wetland A (A1, A2, A3)	1-118, 119-180, 183-191	PFO, PEM	CT inland and ACOE wetland
Wetland B	B27-B36	PSS	CT inland and ACOE wetland
Wetland C	C1-C27, C28-C53	PFO	CT inland and ACOE wetland
Wetland D	D1-D28	PFO	CT inland and ACOE wetland
Stormwater Swale	B1-B26, B38-B73	N/A	CT intermittent watercourse
Tidal Wetlands	TWF1-TWF39	M2RS	CT tidal and ACOE wetland

PFO – palustrine forested wetland; PEM – palustrine emergent; M2RS – marine intertidal rocky shore; PSS – palustrine scrub-shrub.

Wetland A

General Description: Wetland A consists primarily of a forested wetland occurring in three segments within the same landscape feature, with the two main segments connected via a culvert. The wetland flows from north to south, draining into a culvert at the southwest corner. The wetland presumably flows to a large wetland system located to the southwest. The discharge location was

not investigated as it was located outside of the study area in a portion of the facility with restricted access. The two seasonally flooded portions of the wetland contain Vernal Pools 1 and 2.

Wetland Hydrology[1]*:* The hydrology ranges from saturated to seasonally flooded. The wetland is fed by groundwater discharge and rainfall. No surface water discharges to the wetland.

Vegetation: Predominately palustrine forested. The dominant vegetation includes red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*) and black gum (*Nyssa sylvatica*) in the tree layer, highbush blueberry (*Vaccinium corymbosum*), spicebush (*Lindera benzoin*) and winterberry (*Ilex verticillata*) in the shrub layer, and skunk cabbage (*Symplocarpus foetidus*) in the herbaceous layer. At the southeast end of the wetland is an emergent marsh consisting of a common reed (*Phragmites australis*) monoculture located near the inlet to the culvert.

Soil Type: The Ridgebury, Leicester and Whitman complex which is an inland wetland and hydric soil type. The Ridgebury series is a Loamy, mixed, superactive, acid, mesic, shallow Aeric Endoaquepts. The Leicester series is a Coarse-loamy, mixed, superactive, acid, mesic Aeric Endoaquepts. The Whitman series is a Loamy, mixed, superactive, acid, mesic, shallow Typic Humaquepts. The soil complex is a mapping unit that is intermingled on the landscape, consisting of two poorly drained (Ridgebury and Leicester) and one very poorly drained (Whitman) soil developed on glacial till in depressions and drainageways in uplands and valleys. Their use interpretations are very similar, and they typically are so intermingled on the landscape that separation is not practical. The Ridgebury and Leicester series have a seasonal high water table at or near the surface (0-6") from fall through spring. They differ in that the Leicester soil has a more friable compact layer or hardpan, while the Ridgebury soils have a dense to very dense compact layer. The Whitman soil has a high water table for much of the year and may frequently be ponded.

[1] Wetland hydrology references the nomenclature provided in Mitsch, W.J. and J.G. Gosselink. 2007. Wetlands, fourth edition. John Wiley and Sons, Inc.

Wetland B

General Description: Wetland B is of anthropogenic origin, based on the nature of the topography (uniform cut slope with mechanically placed boulders) and the presence of two culverts, one is elevated above the ground surface running through the wetland, the second carries flow under the railroad line to the east. Draining into the southern end of the wetland is a constructed stormwater swale designed to carry flow around Eversource's Millstone Substation compound. This feature does not meet State or federal wetland criteria due to the lack of wetland soils and vegetation. However, it does meet the criteria for a Connecticut intermittent watercourse as it has a defined channel and bank (of anthropogenic origin), evidence of scour and it carries flow longer than the duration of a storm event. The transition from stormwater swale (State regulated intermittent watercourse) to wetland is illustrated on Figure 2, with the intermittent watercourse shown in blue and the State and Federal wetland shown in green, field demarcated by wetland flags B27-B36.

Wetland Hydrology: The hydrology is saturated throughout. No surface water drains into the wetland. The wetland is fed by groundwater discharge.

Vegetation: The vegetation is palustrine scrub-shrub. The herbaceous layer is dominated by common reed, with skunk cabbage growing beneath the shrub cover where common reed is less prevalent. The shrub layer is dominated by speckled alder (*Alnus incana*).

Soil Type: The soil type is anthropogenic in origin, and best classified as Aquents. Aquents is a miscellaneous land type used to denote areas of anthropogenic origin or disturbance that are poorly drained or very poorly drained, and hydric. These soils have an aquic soil moisture regime and can be expected to support hydrophytic vegetation. Typically, these soils occur in places where less than two feet of earthen material have been placed over poorly or very poorly drained soils; areas where the natural soils have been mixed so that the natural soil layers are not identifiable; or where the soil materials have been excavated to the watertable.

Wetland C

General Description: Wetland C lies along the northeast side of the study area. The wetland occurs in two segments, bifurcated by an existing culverted road crossing.

Wetland Hydrology: The hydrology is saturated throughout, with an intermittent watercourse that flows from north to south roughly through the center of the wetland and draining to the southeast beyond the study area.

Vegetation: The vegetation is palustrine forested, vegetatively similar to Wetland A. The dominant vegetation includes red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*) and black gum (*Nyssa sylvatica*) in the tree layer, highbush blueberry (*Vaccinium corymbosum*), spicebush (*Lindera benzoin*) and winterberry (*Ilex verticillata*) in the shrub layer, and skunk cabbage (*Symplocarpus foetidus*) in the herbaceous layer.

Soil Type: The Ridgebury, Leicester and Whitman complex which is an inland wetland and hydric soil type. The Ridgebury series is a Loamy, mixed, superactive, acid, mesic, shallow Aeric Endoaquepts. The Leicester series is a Coarse-loamy, mixed, superactive, acid, mesic Aeric Endoaquepts. The Whitman series is a Loamy, mixed, superactive, acid, mesic, shallow Typic Humaquepts. The soil complex is a mapping unit that is intermingled on the landscape, consisting of two poorly drained (Ridgebury and Leicester) and one very poorly drained (Whitman) soil developed on glacial till in depressions and drainageways in uplands and valleys. Their use interpretations are very similar, and they typically are so intermingled on the landscape that separation is not practical. The Ridgebury and Leicester series have a seasonal high water table at or near the surface (0-6") from fall through spring. They differ in that the Leicester soil has a more friable compact layer or hardpan, while the Ridgebury soils have a dense to very dense compact layer. The Whitman soil has a high water table for much of the year and may frequently be ponded.

Wetland D

General Description: The wetland lies between the access road to the east, a building/parking area to the west, and the Metro North railroad line to the north. The wetland sits in a low swale at the base of the road slope and was presumably created when large scale grading occurred to create the surrounding infrastructure. The maturity of the trees surrounding the wetland (including large sawtimber greater than 20 inches d.b.h.) suggests this area has not been disturbed in some time, and the wetland has naturalized.

Wetland Hydrology[2]*:* the wetland has a temporarily flooded hydrology. The wetland drains from north to south, with standing water infiltrating into the ground at the southern terminus where it reaches a stone wall at the edge of the woods. Approximately 50 feet to the south in a graded lawn area, there is a catch basin that intercepts any remaining surface flows discharging from the wetland during periods of peak flow.

Vegetation: The wetland interior consists of a low velocity flow path draining south. This area contains little to no vegetation. The border of the wetland is vegetated with red maple and green ash in the tree layer, and highbush blueberry in the shrub layer.

Soil Type: The soil type is anthropogenic in origin, and best classified as Aquents. Aquents is a miscellaneous land type used to denote areas of anthropogenic origin or disturbance that are poorly drained or very poorly drained, and hydric. These soils have an aquic soil moisture regime and can be expected to support hydrophytic vegetation. Typically, these soils occur in places where less than two feet of earthen material have been placed over poorly or very poorly drained soils; areas where the natural soils have been mixed so that the natural soil layers are not identifiable; or where the soil materials have been excavated to the watertable.

Tidal Wetlands

General Description: Tidal wetlands and tidal waters are located along the western edge of the project area, which borders Long Island Sound at Niantic Bay. For planning purposes, we delineated the field observed ordinarily high water mark[3] of Long Island Sound. The regulatory boundaries at this location would need to be field established by survey. The Coastal Jurisdiction

[2] Wetland hydrology references the nomenclature provided in Mitsch, W.J. and J.G. Gosselink. 2007. Wetlands, fourth edition. John Wiley and Sons, Inc.

[3] The Ordinary High Water Mark (OHWM) was determined using the criteria noted in the U.S. Army Corp of Engineers Ordinary High Water Mark Identification criteria outlined on the December 2005 Regulatory Guidance Letter. That guidance document defines the OHWM as follows: *"The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."* The guidance document goes on to provide a list of physical characteristics that can be used to reliably determine the OHWM in the field, including the presence of wrack, natural shelving, water staining or changes in the plant community.

Line (CJL) of elevation 2.1 (datum NAVD88) represents the Connecticut regulatory boundary for Long Island Sound in Waterford. The Army Corp of Engineers would require that the High Tide Line and Mean High Water be established for regulated review purposes. The field established boundary is anticipated to roughly correspond to the CJL.

Vegetation: The vegetation along the upland interface consists predominately of coastal forest and shrubland vegetated primarily with non-tidal species such as autumn olive (*Elaeagnus umbellata*), multiflora rose (*Rosa multiflora*), along with oak (*Quercus sp.*) and wild cherry (*Prunus serotina*) trees. A few locations include typical tidal interface vegetation including switchgrass (*Panicum virgatum*) and beach rose (*Rosa rugosa*). Tidal marsh patches were vegetated with both high marsh associated saltmeadow cordgrass (*Spartina patens*) and low marsh associated smooth cordgrass (*Spartina alterniflora*). Most patches appear to be dead or highly degraded. The intertidal habitat consists primarily of a broad rocky intertidal zone with rockweed beds (*Fucus vesiculosus*) occupying the lower elevations in and around the observed low tide line.

Tidal marshes are a regulated resource in Connecticut. Small disjunct patches of degraded tidal marsh were observed waterward of the high tide line. Due to the degraded nature of these marsh areas, they do not occupy the typical habitat zone that would form the regulated CJL boundary, requiring survey-established regulatory elevations to be utilized for permitting compliance. The specific reason for marsh loss/degradation at this location is unknown, but marsh loss is a well-documented phenomenon plaguing Long Island Sound, with causes including marsh dieback, impacts associated with nutrients from stormwater runoff, and sea level rise. These degraded patches were covered with a thick layer of wrack, and most show shear lines and cleaves where the marsh soils are dislodging from the underlying sand and gravel. A few patches of live marsh were noted just north of the study area limits, where for comparison purposes we noted live root masses and dormant live stems of *Spartina* grasses.

*Soil Type: S*oils consist of Pawcatuck soils. The Pawcatuck series is a Sandy or sandy-skeletal, mixed, euic, mesic Terric Sulfihemists. consists of very deep, very poorly drained soils formed in herbaceous organic deposits over sandy mineral material. They are in tidal marches subject to inundation by salt water twice daily.

Upland (non-wetland) Soil Types Observed

Digitally available soil survey information was obtained from the Natural Resources Conservation Service to classify the non-wetland soil types present (refer to NRCS Soil Map, attached). Note that the NRCS digital soil mapping is not precise to the site scale. Rather, the soil types are representative of the soil catena that would be present in the region in which the site occurs and is therefore a useful reference for onsite wetland soil identification.

The non-wetland soils were not examined in detail, except as was necessary to identify the wetland boundary. They generally consist of Sudbury series, Woodbridge series, Sutton series, Charlton-Chatfield complex, Paxton and Montauk series, sand-Hooksan complex and Udorthents.

The Sudbury series consists of very deep, moderately well and somewhat poorly drained soils on outwash plains. They are nearly level to strongly sloping soils in slight depressions and on terraces and foot slopes in areas of glacial outwash. Permeability is moderately rapid in the upper part of the solum and rapid in the lower part of the solum and in the substratum

The Woodbridge series consists of moderately well drained loamy soils formed in compact, subglacial till. They are very deep to bedrock. They are nearly level to moderately steep soils on till plains, hills, and drumlins. Depth to the compact layer (hardpan) is 18 to 40 inches. Depth to bedrock is commonly more than 6 feet. Woodbridge soils have a seasonal high water table on top of the compact layer (18-40”) from fall through late spring.

The Sutton series consists of very deep, moderately well drained loamy soils formed in friable till. They are nearly level to strongly sloping soils on till plains and low ridges, typically in mid to low slope positions. Sutton soils have a seasonal high water table at a depth of about 18-42” from mid-fall through mid-spring.

The Charlton series is a very deep, well drained loamy soil formed in friable till. They are nearly level to very steep soils on till plains and hills. Depth to bedrock and the seasonal high water table is commonly more than 6 feet.

The Chatfield series consists of moderately deep, well drained, and somewhat excessively drained soils formed in till. They are nearly level to very steep soils on glaciated plains, hills, and ridges. Crystalline bedrock is at depths of 20 to 40 inches. The soils formed in a moderately thick mantle of glacial till overlying granite, gneiss, or schist bedrock. Rock outcrops are rare to common and are limited to the more resistant bedrock.

The Paxton series consists of well drained loamy soils formed in subglacial till. The soils are very deep to bedrock and moderately deep to a densic contact (known locally as hardpan). They are nearly level to steep soils on till plains, hills, and drumlins. The depth to the densic contact and material is commonly 20 to 40 inches but the range includes 18 to 40 inches. Depth to bedrock is commonly more than 6 feet. Rock fragments range from 5 to 35 percent by volume.

The Montauk series consists of very deep, well drained soils formed in glacial till derived primarily from granitic materials. These soils are on upland till plains and moraines. The landscape in some areas has many closed depressions, some of which are filled by perennial ponds or wet spots. The soils formed in thick moderately coarse or medium textured glacial till mantles underlain by firm sandy till. Some areas have very stony or extremely stony surfaces. The potential for runoff is low to high. Permeability is moderate or moderately rapid in the solum and slow or moderately slow in the substratum.

The sand-Hooksan complex consists of very deep excessively drained sands on rolling topography, typically vegetated with beach grass and brush cover. They consist of eolian sands derived from sandy marine deposits.

If you have any questions regarding these findings, please feel free to contact me.

Respectfully submitted,

Eric Davison
Certified Professional Wetland Scientist
Registered Soil Scientist
eric@davisonenvironmental.com
www.davisonenvironmental.com

Attachments: (1) Figures 1 and 2
(2) General Wetland Photographs
(3) NRCS Soil Survey Mapping
(4) Wetland Determination Data Forms
(5) Wetland Transect Photographs

Figures 1 and 2

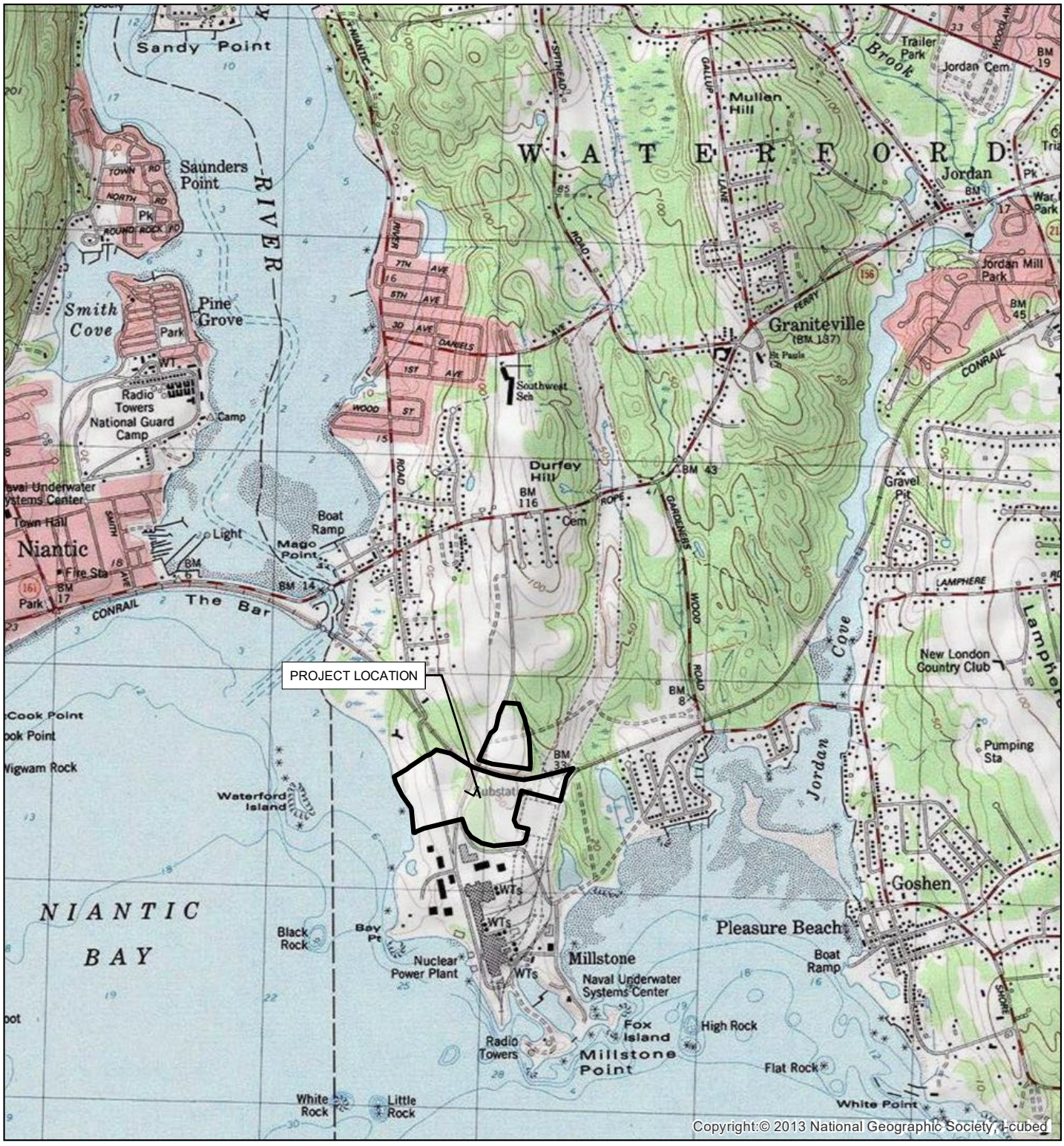

Figure 1: Topographic Location Map
Millstone Power Station
Millstone Road, Waterford, CT

Legend

Project Location

Map Notes:
Base Map: ESRI USA Topo Maps
Map Date: April, 2022

SCALE

1 inch = 2,000 feet

0 1,000 2,000 Feet

DAVISON ENVIRONMENTAL, LLC
10 MAPLE STREET
CHESTER, CT 06412
860-803-0938

DAVISON ENVIRONMENTAL

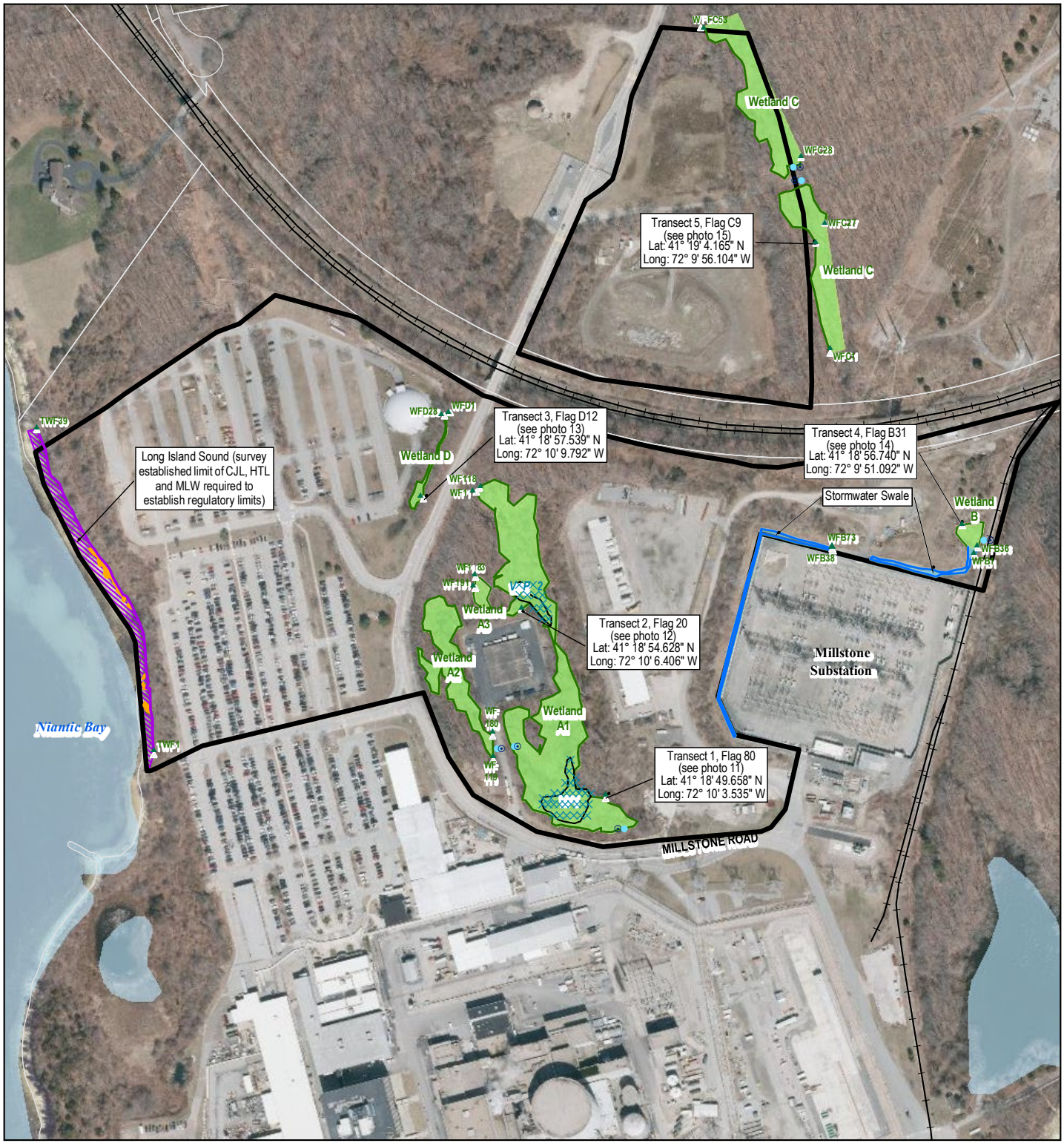

Figure 2: Wetlands and Watercourses Map
Millstone Power Station
Millstone Road, Waterford, CT

Map Notes:
Base Map: CTECO 2019 Aerial Imagery
Map Date: April, 2022

Legend

- Project Area
- Approximate Parcel Boundary
- Railroad
- Wetland Flag
- Culvert
- Stormwater Swale
- Delineated Wetland Boundary Outline
- Delineated Wetland
- Long Island Sound OHWM
- Tidal Marsh (high and low marsh, degraded)
- Open Water
- Confirmed Vernal Pool

SCALE

1 inch = 350 feet

0 175 350 Feet

DAVISON ENVIRONMENTAL, LLC
10 MAPLE STREET
CHESTER, CT 06412
860-803-0938

GENERAL WETLAND PHOTOGRAPHS

Wetland A

Photo 1: View of northern end of wetland.

Photo 1: View of eastern end of wetland.

Wetland B

Photo 3: View of stormwater swale intermittent watercourse draining to Wetland B.

Photo 4: View of wetland at location of elevated culvert interior to wetland.

Wetland C

Photo 5: View of central portion of wetland showing embedded intermittent watercourse.

Photo 6: View of culvert crossing.

Wetland D

Photo 7: View of southern portion of wetland looking north.

Photo 8: View of northern portion of wetland looking north.

Photo 9: View of tidal limits at southern end looking north.

Photo 10: View of tidal limits at northern end looking south.

NRCS Soil Survey Mapping

Soil Map—State of Connecticut
(Millstone, Waterford, CT)

Map Scale: 1:5,600 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 250 500 1000 1500

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
Survey Area Data: Version 21, Sep 7, 2021

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

Date(s) aerial images were photographed: Mar 28, 2011—Mar 27, 2019

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
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	7.9	12.2%
23A	Sudbury sandy loam, 0 to 5 percent slopes	0.0	0.0%
45A	Woodbridge fine sandy loam, 0 to 3 percent slopes	0.6	0.9%
46B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very stony	2.2	3.3%
51B	Sutton fine sandy loam, 0 to 8 percent slopes, very stony	0.0	0.0%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	1.0	1.5%
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	0.5	0.7%
307	Urban land	8.4	12.9%
311	Udorthents-Urban land complex, coastal, rarely flooded	15.8	24.3%
312	Udorthents, coastal, rarely flooded	27.0	41.5%
640	Beaches, sand-Hooksan complex, 0 to 8 percent slopes	0.7	1.1%
860	Billington silt loam, 0 to 1 meter water depth	0.3	0.4%
861	Billington silt loam, 1 to 2 meter water depth	0.7	1.1%
Totals for Area of Interest		**65.1**	**100.0%**

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Millstone Power Station City/County: Waterford/New London Sampling Date: 3-25-22

Applicant/Owner: Mott-MacDonald State: CT Sampling Point: T1A

Investigator(s): Eric Davison, Matthew Davison Section, Township, Range:

Landform (hillside, terrace, etc.): coastal plain Local relief (concave, convex, none): convex Slope (%): 3-5

Subregion (LRR or MLRA): LRR R Lat: 41° 18' 49.658" N Long: 72° 10' 3.535" W Datum: NAD83

Soil Map Unit Name: Udorthents NWI classification: None

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

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

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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

Remarks: (Explain alternative procedures here or in a separate report.)
Transect point located ca. 3ft upslope of Wetland Flag #80.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: T1A

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	30	Yes	FAC
2. *Betula lenta*	30	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. *Rosa multiflora*	60	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	
Herb Stratum (Plot size: 5ft)			
1. *Carex pensylvanica*	20	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	20	=Total Cover	
Woody Vine Stratum (Plot size: 30ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	90	x 4 =	360
UPL species	20	x 5 =	100
Column Totals:	140 (A)		550 (B)

Prevalence Index = B/A = 3.93

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

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

SOIL Sampling Point: T1A

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100					Loamy/Clayey	
8-14	10yr 4/6	100					Loamy/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Millstone Power Station City/County: Waterford/New London Sampling Date: 3-25-22

Applicant/Owner: Mott-MacDonald State: CT Sampling Point: T1B

Investigator(s): Eric Davison, Matthew Davison Section, Township, Range:

Landform (hillside, terrace, etc.): coastal plain Local relief (concave, convex, none): concave Slope (%): 0-3

Subregion (LRR or MLRA): LRR R Lat: 41° 18' 49.658" N Long: 72° 10' 3.535" W Datum: NAD83

Soil Map Unit Name: Ridgebury, Leicester and Whitman NWI classification: PFO1C

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

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

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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

Remarks: (Explain alternative procedures here or in a separate report.)
Transect point located ca. 5ft downslope of Wetland Flag #80.

HYDROLOGY

Wetland Hydrology Indicators:

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

- x Surface Water (A1)
- x High Water Table (A2)
- x Saturation (A3)
- x Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- x Water-Stained Leaves (B9)
- x Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- x Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No x	Depth (inches): ____
Water Table Present?	Yes x	No ____	Depth (inches): 11
Saturation Present? (includes capillary fringe)	Yes x	No ____	Depth (inches): 9

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:
Transect point located at wetland edge bordering seasonally flooded vernal pool habitat. Point located on transitional slope just beyond ponded area.

VEGETATION – Use scientific names of plants. Sampling Point: T1B

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	100	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. *Rosa multiflora*	20	Yes	FACU
2. *Acer rubrum*	40	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	
Herb Stratum (Plot size: 5ft)			
1. *Symplocarpus foetidus*	30	Yes	OBL
2. *Phragmites australis*	40	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	70	=Total Cover	
Woody Vine Stratum (Plot size: 30ft)			
1. *Celastrus orbiculatus*	1	No	UPL
2.			
3.			
4.			
	1	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	40	x 2 =	80
FAC species	140	x 3 =	420
FACU species	20	x 4 =	80
UPL species	1	x 5 =	5
Column Totals:	231 (A)		615 (B)

Prevalence Index = B/A = 2.66

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL Sampling Point: T1B

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10yr 3/1	100					Mucky Loam/Clay	
10-18	10yr 4/2	80	10yr 4/1	10	D	M	Loamy/Clayey	
			10yr 4/6	10	C	M		Prominent redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- _X_ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- _X_ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _X_ **No** _____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Millstone Power Station City/County: Waterford/New London Sampling Date: 3-25-22

Applicant/Owner: Mott-MacDonald State: CT Sampling Point: T2A

Investigator(s): Eric Davison, Matthew Davison Section, Township, Range:

Landform (hillside, terrace, etc.): coastal plain Local relief (concave, convex, none): convex Slope (%): 0-5

Subregion (LRR or MLRA): LRR R Lat: 41° 18' 54.628" N Long: 72° 10' 6.406" W Datum: NAD83

Soil Map Unit Name: Woodbridge NWI classification: None

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

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

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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

Remarks: (Explain alternative procedures here or in a separate report.)
Transect point location ca. 3ft upslope of Flag #20.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 19

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: T2A

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus rubra*	40	Yes	FACU
2. *Acer rubrum*	20	Yes	FAC
3. *Betula lenta*	30	Yes	FACU
4.			
5.			
6.			
7.			
	90	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. *Clethra alnifolia*	20	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	20	=Total Cover	
Herb Stratum (Plot size: 5ft)			
1. *Carex pensylvanica*	30	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	30	=Total Cover	
Woody Vine Stratum (Plot size: 30ft)			
1. *Smilax rotundifolia*	3	No	FAC
2.			
3.			
4.			
	3	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	43	x 3 =	129
FACU species	70	x 4 =	280
UPL species	30	x 5 =	150
Column Totals:	143 (A)		559 (B)

Prevalence Index = B/A = 3.91

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

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

SOIL Sampling Point: T2A

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10yr 3/1	100					Loamy/Clayey	
4-10	10yr 4/6	100					Loamy/Clayey	
10-15	10yr 4/4	98	10yr 4/6	2	C	M	Loamy/Clayey	Distinct redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Millstone Power Station City/County: Waterford/New London Sampling Date: 3-25-22

Applicant/Owner: Mott-MacDonald State: CT Sampling Point: T2B

Investigator(s): Eric Davison, Matthew Davison Section, Township, Range:

Landform (hillside, terrace, etc.): coastal plain Local relief (concave, convex, none): concave Slope (%): 0-3

Subregion (LRR or MLRA): LRR R Lat: 41° 18' 54.628" N Long: 72° 10' 6.406" W Datum: NAD83

Soil Map Unit Name: Ridgebury, Leicester and Whitman NWI classification: PFO1C

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

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

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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

Remarks: (Explain alternative procedures here or in a separate report.)
Transect point located ca. 3ft downslope of Wetland Flag #20.

HYDROLOGY

Wetland Hydrology Indicators:

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

- x Surface Water (A1)
- x High Water Table (A2)
- x Saturation (A3)
- x Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- x Water-Stained Leaves (B9)
- x Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 6

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: T2B

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	100	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. *Clethra alnifolia*	60	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	
Herb Stratum (Plot size: 5ft)			
1. *Symplocarpus foetidus*	20	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	20	=Total Cover	
Woody Vine Stratum (Plot size: 30ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	0	x 2 =	0
FAC species	160	x 3 =	480
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	180 (A)		500 (B)

Prevalence Index = B/A = 2.78

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

_X_ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL Sampling Point: T2B

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10yr 3/1	100					Muck	
9-15	10yr 5/1	90	10yr 4/4	10	C	M	Loamy/Clayey	Distinct redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- _X_ Histic Epipedon (A2)
- _X_ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- _X_ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- _X_ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _X_ **No** _____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Millstone Power Station City/County: Waterford/New London Sampling Date: 3-25-22

Applicant/Owner: Mott-MacDonald State: CT Sampling Point: T3A

Investigator(s): Eric Davison, Matthew Davison Section, Township, Range:

Landform (hillside, terrace, etc.): coastal plain Local relief (concave, convex, none): convex Slope (%): 3-8

Subregion (LRR or MLRA): LRR R Lat: 41° 18' 57.539" N Long: 72° 10' 9.792" W Datum: NAD83

Soil Map Unit Name: Udorthents NWI classification: None

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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

Remarks: (Explain alternative procedures here or in a separate report.)
Transect point located 3ft upslope of flag D12. soils historically disturbed, but no recent disturbance present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches): 14

Wetland Hydrology Present? **Yes** **No** X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: T3A

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Betula populifolia*	30	Yes	FAC
2. *Betula lenta*	30	Yes	FACU
3. *Quercus rubra*	40	Yes	FACU
4.			
5.			
6.			
7.			
	100	=Total Cover	

Sapling/Shrub Stratum (Plot size: 15ft)			
1. *None*			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	

Herb Stratum (Plot size: 5ft)			
1. *Carex pensylvanica*	10	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	=Total Cover	

Woody Vine Stratum (Plot size: 30ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	70	x 4 =	280
UPL species	10	x 5 =	50
Column Totals:	110 (A)		420 (B)
Prevalence Index = B/A =			3.82

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

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

SOIL Sampling Point: T3A

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10yr 3/1	100					Loamy/Clayey	
5-15	10yr 4/4	100					Loamy/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Millstone Power Station City/County: Waterford/New London Sampling Date: 3-25-22

Applicant/Owner: Mott-MacDonald State: CT Sampling Point: T3B

Investigator(s): Eric Davison, Matthew Davison Section, Township, Range:

Landform (hillside, terrace, etc.): coastal plain Local relief (concave, convex, none): concave Slope (%): 0-3

Subregion (LRR or MLRA): LRR R Lat: 41° 18' 57.539" N Long: 72° 10' 9.792" W Datum: NAD83

Soil Map Unit Name: Aquents NWI classification: PFO1A

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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

Remarks: (Explain alternative procedures here or in a separate report.)
Transect point located ca. 3ft downslope of wetland flag D12. This area was historically disturbed/created, but has naturalized and revegeted over decades. No recent disturbance to the vegetation or hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches): 19

Wetland Hydrology Present? **Yes** X **No**

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: T3B

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	70	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. *Vaccinium corymbosum*	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	
Herb Stratum (Plot size: 5ft)			
1. *None*			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size: 30ft)			
1. *None*			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	70	x 3 =	210
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		230 (B)

Prevalence Index = B/A = 2.88

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

_X_ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL Sampling Point: T3B

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10yr 2/1	100					Mucky Loam/Clay	
4-9	10yr 5/2	80	10yr 5/1	10	R	M	Loamy/Clayey	
			10yr 4/4	10	C	M		Distinct redox concentrations
9-16	10yr 5/1	90	10yr 4/4	10	C	M	Loamy/Clayey	Distinct redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- _X_ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- _X_ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _X_ **No** _____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Millstone Power Station City/County: Waterford/New London Sampling Date: 3-25-22

Applicant/Owner: Mott-MacDonald State: CT Sampling Point: T4A

Investigator(s): Eric Davison, Matthew Davison Section, Township, Range:

Landform (hillside, terrace, etc.): coastal plain Local relief (concave, convex, none): convex Slope (%): 5-10

Subregion (LRR or MLRA): LRR R Lat: 41° 18' 56.740" N Long: 72° 9' 51.092" W Datum: NAD83

Soil Map Unit Name: Udorthents NWI classification: None

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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

Remarks: (Explain alternative procedures here or in a separate report.)
Transect point located 5ft upslope of flag B31. This area has been significantly altered, with the entirety of the upland and wetland portions of the transect being disturbed/created. The upland transect point is located in graded earthen fill.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? **Yes** **No** X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: T4A

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. *Elaeagnus umbellata*	50	Yes	UPL
2. *Rosa multiflora*	20	Yes	FACU
3. *Rubus allegheniensis*	20	Yes	FACU
4.			
5.			
6.			
7.			
	90	=Total Cover	
Herb Stratum (Plot size: 5ft)			
1. *Artemisia vulgaris*	80	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	=Total Cover	
Woody Vine Stratum (Plot size: 30ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	130	x 5 =	650
Column Totals:	170 (A)		810 (B)

Prevalence Index = B/A = 4.76

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

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

SOIL Sampling Point: T4A

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10yr 4/3	100					Sandy	Gravelly
10-16	10yr 4/6	100					Sandy	Gravelly

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Millstone Power Station City/County: Waterford/New London Sampling Date: 3-25-22

Applicant/Owner: Mott-MacDonald State: CT Sampling Point: T4B

Investigator(s): Eric Davison, Matthew Davison Section, Township, Range:

Landform (hillside, terrace, etc.): coastal plain Local relief (concave, convex, none): concave Slope (%): 0-3

Subregion (LRR or MLRA): LRR R Lat: 41° 18' 56.740" N Long: 72° 9' 51.092" W Datum: NAD83

Soil Map Unit Name: Aquents NWI classification: PSS1Br

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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

Remarks: (Explain alternative procedures here or in a separate report.)
Transect point located approximately 5ft downslope of Wetland Flag #B31. This a created wetland consisting of mechanically formed embankments consisting mostly of earthen fill, but large boulders form the wetland boundary in some locations.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? **Yes** X **No**

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: T4B

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *No trees*			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. *Alnus incana*	40	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	40	=Total Cover	
Herb Stratum (Plot size: 5ft)			
1. *Phragmites australis*	80	Yes	FACW
2. *Symplocarpus foetidus*	20	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: 30ft)			
1. *Vitis sp.*			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	120	x 2 =	240
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		260 (B)

Prevalence Index = B/A = 1.86

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

_X_ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL Sampling Point: T4B

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10yr 2/1	100					Muck	
5-10	10yr 5/1	90	10yr 4/6	10	C	M	Sandy	Prominent redox concentrations
10-15	10yr 5/1	80	10yr 4/6	20	C	M	Sandy	Prominent redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- _X_ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- _X_ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _X_ **No** _____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Millstone Power Station City/County: Waterford/New London Sampling Date: 3-25-22

Applicant/Owner: Mott-MacDonald State: CT Sampling Point: T5A

Investigator(s): Eric Davison, Matthew Davison Section, Township, Range:

Landform (hillside, terrace, etc.): coastal plain Local relief (concave, convex, none): convex Slope (%): 3-5

Subregion (LRR or MLRA): LRR R Lat: 41° 19' 4.165" N Long: 72° 9' 56.104" W Datum: NAD83

Soil Map Unit Name: Woodbridge NWI classification: None

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

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

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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

Remarks: (Explain alternative procedures here or in a separate report.)
Transect point location ca. 5ft upslope of Flag #C9.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 19
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 17

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: T5A

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus velutina*	50	Yes	UPL
2. *Acer rubrum*	20	Yes	FAC
3. *Betula lenta*	20	Yes	FACU
4.			
5.			
6.			
7.			
	90	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. *Clethra alnifolia*	30	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	30	=Total Cover	
Herb Stratum (Plot size: 5ft)			
1. *Carex pensylvanica*	20	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	20	=Total Cover	
Woody Vine Stratum (Plot size: 30ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	50	x 3 =	150
FACU species	20	x 4 =	80
UPL species	70	x 5 =	350
Column Totals:	140 (A)		580 (B)
Prevalence Index = B/A =			4.14

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

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

SOIL Sampling Point: T5A

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10yr 3/1	100					Loamy/Clayey	
6-14	10yr 4/4	98	10yr 4/6	2	C	M	Loamy/Clayey	Distinct redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Millstone Power Station City/County: Waterford/New London Sampling Date: 3-25-22

Applicant/Owner: Mott-MacDonald State: CT Sampling Point: T5B

Investigator(s): Eric Davison, Matthew Davison Section, Township, Range:

Landform (hillside, terrace, etc.): coastal plain Local relief (concave, convex, none): convex Slope (%): 0-3

Subregion (LRR or MLRA): LRR R Lat: 41° 19' 4.165" N Long: 72° 9' 56.104" W Datum: NAD83

Soil Map Unit Name: Ridgebury, Leicester and Whitman NWI classification: PFO1B

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

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

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

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

Remarks: (Explain alternative procedures here or in a separate report.)
Transect point located ca. 5ft downslope of Wetland Flag #C9.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- x High Water Table (A2)
- x Saturation (A3)
- x Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- x Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes X	No	Depth (inches): 7
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches): 5

Wetland Hydrology Present? **Yes** X **No**

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: T5B

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	50	Yes	FAC
2. *Betula alleghaniensis*	20	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. *Clethra alnifolia*	20	Yes	FAC
2. *Vaccinium corymbosum*	20	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	40	=Total Cover	
Herb Stratum (Plot size: 5ft)			
1. *Symplocarpus foetidus*	70	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	70	=Total Cover	
Woody Vine Stratum (Plot size: 30ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	20	x 2 =	40
FAC species	90	x 3 =	270
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	180 (A)		380 (B)

Prevalence Index = B/A = 2.11

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL Sampling Point: T5B

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10yr 3/1	100					Muck	
10-16	10yr 5/1	90	10yr 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- _X_ Histic Epipedon (A2)
- _X_ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- _X_ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- _X_ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _X_ **No** _____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Wetland Determination Data Form Photo Locations

Photo 11: Transect 1, view of wetland boundary at Wetland Area A1, flag #80, looking northwest.

Photo 12: Transect 2, view of wetland boundary at Wetland Area A1 Flag #20, looking east.

Photo 13: Transect 3, Wetland D, view of wetland boundary at Flag #D12 looking north.

Photo 14: Transect 4, Wetland B, view of wetland boundary at Flag #B31 looking east.

Photo 15: Transect 5, Wetland C, view looking north at wetland boundary at Flag #C9.

WETLAND A1		
Wetland Flag ID	Latitude	Longitude
1	41.31602883	-72.16887672
2	41.31597279	-72.16884262
3	41.31589106	-72.1687074
4	41.31585971	-72.16870058
5	41.31591118	-72.16869522
6	41.31571574	-72.1686711
7	41.31558854	-72.16866009
8	41.31552209	-72.16856045
9	41.31550517	-72.1686014
10	41.31540871	-72.16871458
11	41.31542145	-72.1686364
12	41.31539037	-72.1687119
13	41.31533839	-72.16871341
14	41.31534263	-72.16868309
15	41.31525522	-72.16850097
16	41.31521647	-72.16855243
17	41.31517039	-72.16857257
18	41.31514076	-72.16862135
19	41.31512681	-72.16853703
20	41.31517434	-72.16844618
21	41.31521927	-72.16836971
22	41.3151349	-72.16828033
23	41.31508602	-72.16821863
24	41.31504989	-72.16824727
25	41.31504351	-72.16819684
26	41.31494283	-72.16815135
27	41.31481631	-72.16810623
28	41.31477492	-72.16811645
29	41.31471977	-72.1681129
30	41.31467139	-72.16815393
31	41.31457609	-72.16808037
32	41.31454395	-72.16815514
33	41.31450957	-72.16827086
34	41.31448224	-72.16826392
35	41.31441291	-72.16829823
36	41.31438778	-72.16836648
37	41.31432335	-72.16826082
38	41.31425351	-72.16829521
39	41.31422842	-72.16822396
40	41.31411848	-72.16828688
41	41.31418568	-72.16827882
42	41.31413629	-72.16830036
43	41.31421715	-72.16841123
44	41.31426891	-72.16843388
45	41.31436633	-72.16844175
46	41.3143869	-72.16838261
47	41.31444007	-72.16838095
48	41.31446415	-72.16848334
49	41.31444161	-72.16858412
50	41.31443553	-72.16861328
51	41.31440723	-72.16863537
52	41.31433182	-72.16862338
53	41.31421235	-72.16858139
54	41.31413748	-72.16853306
55	41.31412968	-72.16852875
56	41.31410958	-72.16850544
57	41.31401885	-72.16850053
57	41.31401885	-72.16850053
58	41.31389004	-72.16842278
59	41.31378866	-72.16845593
60	41.31378402	-72.16842369

WETLAND A1 (Continued)		
Wetland Flag ID	Latitude	Longitude
61	41.31371536	-72.16835567
62	41.31368649	-72.16822262
63	41.31365862	-72.16816718
64	41.31361356	-72.16817146
65	41.31359713	-72.16813057
66	41.31360469	-72.1680872
67	41.31359238	-72.16802333
68	41.31358174	-72.16790477
69	41.31356893	-72.16782082
70	41.31355451	-72.16777858
71	41.31357814	-72.16769845
72	41.31355446	-72.16769828
73	41.31354985	-72.16759587
74	41.31356732	-72.16751698
75	41.31359103	-72.1673798
76	41.31362385	-72.16734814
77	41.31366039	-72.16744408
78	41.31373249	-72.16751895
79	41.31376119	-72.16762419
80	41.31379386	-72.1676487
81	41.31380739	-72.1677922
82	41.31386247	-72.16783401
83	41.31386015	-72.16793465
84	41.31394626	-72.16795379
85	41.31399703	-72.16795558
86	41.31403348	-72.16790207
87	41.31412233	-72.16791974
88	41.31417498	-72.1679047
89	41.31424023	-72.16782116
90	41.31434565	-72.16787045
91	41.31443728	-72.16786685
92	41.31451491	-72.16789503
93	41.31458896	-72.16790547
94	41.31473501	-72.16798564
95	41.3148366	-72.16802411
96	41.31493043	-72.16812845
97	41.31509602	-72.1681175
98	41.31520977	-72.16811376
99	41.31525962	-72.16821003
100	41.3153152	-72.16823404
101	41.31536832	-72.16818273
102	41.31548669	-72.16825542
103	41.31555687	-72.16827459
104	41.31561972	-72.16828881
105	41.31570694	-72.16829374
106	41.31574085	-72.16828561
107	41.31583303	-72.16832424
108	41.31592482	-72.16830974
109	41.31593157	-72.16831105
110	41.31599828	-72.1683052
111	41.3160119	-72.16839037
112	41.31592932	-72.16851585
113	41.3159618	-72.16857344
114	41.31607403	-72.16856545
115	41.31611553	-72.16870695
116	41.31611839	-72.16870509
117	41.31607595	-72.16882974
118	41.31605826	-72.16884579

WETLAND A2		
Wetland Flag ID	Latitude	Longitude
119	41.3140826	-72.16873266
120	41.31415723	-72.16880307
121	41.31422606	-72.16883233
122	41.31427984	-72.16886668
123	41.31429885	-72.16892896
124	41.31435709	-72.16896249
125	41.31443029	-72.16899655
126	41.31444282	-72.16908158
127	41.31451916	-72.16911458
128	41.31452263	-72.16916436
129	41.31459618	-72.16918353
130	41.31464249	-72.16914106
131	41.31469929	-72.16921762
132	41.31474793	-72.16922905
133	41.31468582	-72.16925159
134	41.31463728	-72.16924842
135	41.31456064	-72.16925209
136	41.31457934	-72.16932555
137	41.31463291	-72.16934721
138	41.31467017	-72.16938598
139	41.3147159	-72.1693591
140	41.31476771	-72.16941281
141	41.3147781	-72.16943784
142	41.3148986	-72.16945647
143	41.31487966	-72.16941052
144	41.31483574	-72.16941281
145	41.31480461	-72.16936794
146	41.31476592	-72.16929019
147	41.31477288	-72.16920053
148	41.31483376	-72.16922498
149	41.31486559	-72.16922287
150	41.3149302	-72.1693013
151	41.31501671	-72.1693291
152	41.31502446	-72.1693962
153	41.31507587	-72.16940497
154	41.31512997	-72.16938585
155	41.31520867	-72.16938402
156	41.31525291	-72.16932941
157	41.31523537	-72.16935744
158	41.31526453	-72.16928001
159	41.31527391	-72.16924091
160	41.31525858	-72.16919892
161	41.31520482	-72.16916875
162	41.3151988	-72.16910901
163	41.31520839	-72.16909668
164	41.31512473	-72.16905597
165	41.3150558	-72.16902321
166	41.31504743	-72.16906678
167	41.31501913	-72.1690885
168	41.31494047	-72.16914272
169	41.31490773	-72.16907187
170	41.31484687	-72.16903481
171	41.3147902	-72.16903667
172	41.31472651	-72.16902197
173	41.31466717	-72.16900339
174	41.31463496	-72.16895808
175	41.31455404	-72.16896683
176	41.314515	-72.16892562
177	41.31444351	-72.16884992
178	41.31438038	-72.16886464
179	41.31430119	-72.16882433
180	41.31425534	-72.16873746

WETLAND A3		
Wetland Flag ID	Latitude	Longitude
183	41.31541022	-72.16888986
184	41.3153984	-72.16884463
185	41.31532852	-72.16874801
186	41.3152486	-72.16878677
187	41.31518852	-72.16874925
188	41.31517173	-72.16880833
189	41.31522528	-72.16889418
190	41.31528676	-72.16890967
191	41.31533182	-72.16889541

WETLAND B		
Wetland Flag ID	Latitude	Longitude
B27	41.31560098	-72.16413841
B28	41.31565274	-72.16419912
B29	41.31570196	-72.16425056
B30	41.31574361	-72.16424052
B31	41.315761	-72.16419227
B32	41.31578182	-72.1640354
B33	41.31577834	-72.16398808
B34	41.31572997	-72.1640008
B35	41.31568645	-72.16400565
B36	41.31559793	-72.16404668

WETLAND D		
Wetland Flag ID	Latitude	Longitude
D1	41.3166055	-72.16912257
D2	41.31654623	-72.16916501
D3	41.31646256	-72.16916509
D4	41.31643054	-72.16918097
D5	41.31636396	-72.16923457
D6	41.3163109	-72.16924231
D7	41.31624973	-72.16929009
D8	41.31618403	-72.16932373
D9	41.31610355	-72.16936147
D10	41.31607101	-72.1693895
D11	41.31604293	-72.16939062
D12	41.31598303	-72.16938657
D13	41.31595119	-72.16945032
D14	41.31590483	-72.16947632
D15	41.3159167	-72.16951374
D16	41.31596454	-72.16952629
D17	41.31603356	-72.16948078
D18	41.31610953	-72.16944941
D19	41.31609732	-72.16940483
D20	41.31614673	-72.16936782
D21	41.31624499	-72.16932076
D22	41.31629878	-72.16926335
D23	41.31633688	-72.1692396
D24	41.316428	-72.16919477
D25	41.3164773	-72.16917632
D26	41.31651359	-72.16917189
D27	41.31656977	-72.16918481
D28	41.31658566	-72.16918102

TIDAL WETLANDS		
Wetland Flag ID	Latitude	Longitude
TWF1	41.31413578	-72.17200821
TWF2	41.31420547	-72.17201279
TWF3	41.31427714	-72.17201816
TWF4	41.31439162	-72.17201623
TWF5	41.31446037	-72.1720382
TWF6	41.31461859	-72.17207432
TWF7	41.31461533	-72.17204323
TWF8	41.31465022	-72.17205847
TWF9	41.31475317	-72.17207423
TWF10	41.31480722	-72.17207916
TWF11	41.31490159	-72.17208597
TWF12	41.31494502	-72.17208867
TWF13	41.31501424	-72.17209791
TWF14	41.31508761	-72.17213606
TWF15	41.31514196	-72.17216793
TWF16	41.31520963	-72.17220549
TWF17	41.31523257	-72.17221893
TWF18	41.31528693	-72.17225955
TWF19	41.3152982	-72.17229481
TWF20	41.31536952	-72.1723516
TWF21	41.31541614	-72.17238742
TWF22	41.31548369	-72.17242312
TWF23	41.3155222	-72.17245739
TWF24	41.31557277	-72.17251607
TWF25	41.31561692	-72.17255633
TWF26	41.31568229	-72.17262149
TWF27	41.31573574	-72.17265632
TWF28	41.31577933	-72.172694
TWF29	41.3158641	-72.17275323
TWF30	41.31591327	-72.1727804
TWF31	41.31595134	-72.17281597
TWF32	41.31604328	-72.17286777
TWF33	41.31610726	-72.17290065
TWF34	41.31616787	-72.17298341
TWF35	41.31622582	-72.17300484
TWF36	41.31629241	-72.17302057
TWF37	41.3163582	-72.17303316
TWF38	41.31644144	-72.17308022
TWF39	41.31650527	-72.17311602

SOIL DATA POINTS		
ID	Latitude	Longitude
T1A	41.3138	-72.1677
T1B	41.3138	-72.1677
T2A	41.3152	-72.1684
T2B	41.3152	-72.1684
T3A	41.316	-72.1694
T3B	41.316	-72.1694
T4A	41.3158	-72.1642
T4B	41.3158	-72.1642

NOTES:

PRELIMINARY- NOT FOR CONSTRUCTION

MOTT MACDONALD

REV.	DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
A	04/27/2022	ISSUED FOR REVIEW	JSR	JR	CN

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PLANT: BEACON WIND 2

DRAWING TITLE: WETLANDS AND SOIL DATA POINTS LATITUDE/LONGITUDE TABLES

CONTR. NO -

SCALE	SIZE	AREA	SYSTEM	DRAWING NUMBER	REV.
NTS AT	D	-	-	C283-MM-Q-XE-00026-01_C01	A

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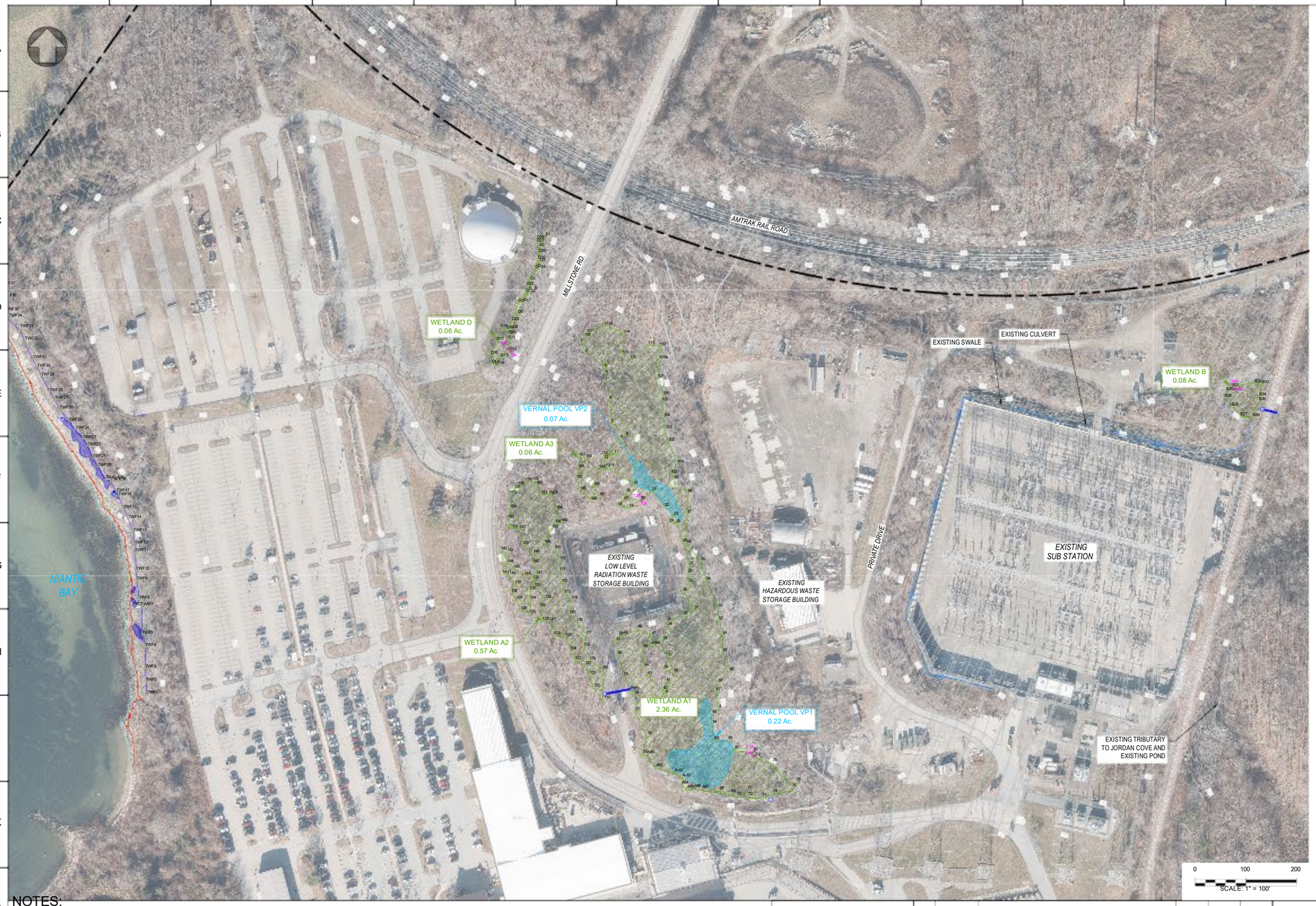
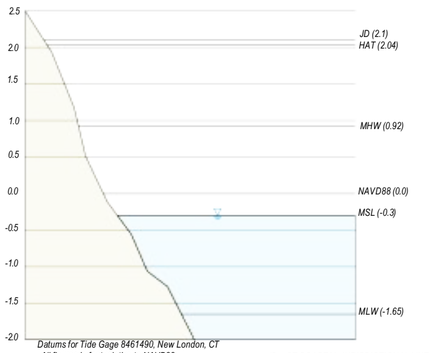


0 100 200
SCALE: 1" = 100'

SCALE: 1" = 2,000'

EXISTING FEATURES

- MAJOR CONTOUR
- MINOR CONTOUR
- PROPERTY LINES
- FENCE
- OVERHEAD ELECTRIC
- RAILROAD TRACKS
- TREELINE
- UTILITY POLE
- STONE WALL
- OVERHEAD ELECTRIC
- BUILDING
- STORMWATER SWALE
- VEGETATED FRESHWATER WETLAND BOUNDARY
- TIDAL WETLAND BOUNDARY
- SALT MARSH VEGETATION
- VERNAL POOL
- CULVERT LOCATION (DAVISON ENVIRONMENTAL)
- EXISTING CULVERT
- MEAN HIGH WATER (0.92' – NAVD88)
- HIGHEST ASTRONOMICAL TIDE (2.04' – NAVD88)
- CT JURISDICTIONAL LINE (2.1' – NAVD88)
- WETLAND FLAG
- SOIL DATA POINT



Datums for Tide Gage 8461490, New London, CT
All figures in feet relative to NAVD88

TIDAL ELEVATIONS
PROFILE
NOT TO SCALE

JD = CT COASTAL JURISDICTIONAL LINE
HAT = HIGHEST ASTRONOMICAL TIDE
MHW = MEAN HIGH WATER
MSL = MEAN SEA LEVEL
MLW = MEAN LOW WATER

NOTES:

1. EXISTING CONTOURS AND FEATURES SHOWN ARE FROM ROBINSON AERIAL DATED DECEMBER 2021 AND DPK CONSULTING TOPOGRAPHIC SURVEY DATED NOVEMBER 2021.
2. PROPERTY LINES SHOWN ARE FROM AVAILABLE PUBLIC DATA AND IS NOT THE RESULT OF A BOUNDARY SURVEY.
3. HORIZONTAL DATUM IS NAD83, CONNECTICUT STATE PLANE, US FOOT. VERTICAL DATUM IS NAVD1988.
4. EXISTING STORM WATER FEATURES WERE TAKEN FROM 2006 DOMINION NUCLEAR POWER PLANT GENERAL PERMIT MAP.
5. WETLANDS WERE DELINEATED AND PROVIDED BY DAVISON ENVIRONMENTAL, LLC. ON 03/29/2022.
6. MEAN HIGH WATER (MHW) ELEVATION 0.92 FEET NAVD88 DATUM, OBTAINED FROM THE USGS NOAA TIDAL GAUGE 8461490 NEW LONDON, CT. AND IS THE EXTENT OF JURISDICTION OF THE TIDAL NAVIGABLE WATER UNDER THE RIVERS AND HARBORS APPROPRIATION ACT OF 1899.
7. HIGHEST ASTRONOMICAL TIDE (HAT) ELEVATION IS 2.04 FEET NAVD88 DATUM, OBTAINED FROM THE USGS NOAA TIDAL GAUGE 8461490 NEW LONDON, CT. AND IS THE EXTENT OF JURISDICTION OF THE TIDAL NAVIGABLE WATER UNDER SECTION 404 OF THE CLEAN WATER ACT. THE HIGHEST ASTRONOMICAL TIDE IS THE AVERAGE OF THE HIGHEST ANNUAL TIDE DURING THE LAST TIDAL EPOCH, 1983-2001.

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PLANT
BEACON WIND 2

DRAWING TITLE:
DRAFT PRELIMINARY
JURISDICTIONAL DETERMINATION MAP

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SCALE SIZE	AREA	SYSTEM	DRAWING NUMBER	REV.

Photo credit: Matt Goldsmith, Equinor