

Wetland and Watercourse Delineation Report

For CT 9 Battery Energy Storage System Project
Windsor Locks, Connecticut



Prepared for:
Key Capture Energy
25 Monroe Street
Albany, New York 12210



Prepared by:
Flycatcher LLC
106 Lafayette Street, Suite 2A
Yarmouth, Maine 04096

May 17, 2023

Table of Contents

1.0	Project Setting.....	1
2.0	Soils	1
3.0	Water Resources.....	2
3.1	Wetlands	2
3.2	Watercourses.....	2

ATTACHMENTS

Attachment 1. Figures

Attachment 2. Site Photographs

1.0 Project Setting

The proposed CT 9 Battery Energy Storage System (BESS) project (Project) is located in the town of Windsor Locks Hartford County, Connecticut. The project is within the Farmington River watershed, which is tributary of the Connecticut River. The Farmington River watershed covers over 600 square miles in Connecticut and Massachusetts.

To support avoidance and minimization of potential impacts to protected natural resources, Flycatcher LLC (Flycatcher) completed agency consultation, desktop review, and on-site surveys to evaluate the presence of sensitive resources and to inform the Project design and development. This includes a wetland and watercourse delineation, vernal pool survey, and general ecological assessment of the site. Field surveys were completed on November 17 and December 5, 2022, and on April 4, 2023.

The Project's Survey Area is approximately five (5) acres and covers a single parcel located just north of the Windsor Locks/Windsor town line along State Highway 20, about 800 feet west of State Highway 75 in Windsor Locks, Connecticut. The site entrance on the eastern border of the property is behind commercial properties with frontage on State Highway 75. The majority of the property is a gravel parking area, with disturbed forested areas along the southern boundary of the property.

Topography on the site is flat to slightly sloping to the west. The National Wetlands Inventory depicts one watercourse running northeast – southwest through the eastern third of the site which appears to be piped under the existing parking area. A project location map is provided on Figure 1 in Attachment 1.

2.0 Soils

The Natural Resources Conservation Service (NRCS) medium intensity soil survey for Hartford County shows the following map units depicted within the Survey Area:

- Udorthents-Urban land complex
- Urban land

Neither of the soils mapped within the Survey Area are considered hydric soils which are commonly associated with wetlands, nor are they listed as prime farmland soil. Onsite investigations confirmed these soil types are present.

3.0 Water Resources

3.1 Wetlands

Wetland delineations were conducted in accordance with the US Army Corps of Engineers (USACE) Wetland Delineation Manual¹ and the Northcentral and Northeast Regional Supplement.² Additionally, wetland and watercourses surveys were completed in accordance with the Connecticut Department of Energy and Environmental Protection's (CTDEEP) Inland Wetland and Watercourses Act³ and with the Town of Windsor Locks, Connecticut Inland Wetlands and Watercourses Regulations.⁴

The Survey Area was investigated by soil scientists and wetland scientists via a meander survey. The scientists analyzed site-specific data to determine if the area met the criteria to be considered a wetland. When wetlands were identified, the boundaries of the wetlands were marked with pink survey flagging with the word "Wetland Delineation" and numbered in sequential order. Delineated wetlands were overseen and verified by a professional soil scientist (Mr. Rodney Kelshaw, Certified Professional Soil Scientist).

Flycatcher mapped four (4) freshwater wetlands within the Survey Area, one palustrine emergent (PEM), two palustrine scrub shrub (PSS), and one PEM and PSS complex. Summary descriptions of wetlands are provided in Table 1, below. The location of each wetland is mapped within the Survey Area depicted on Figure 2, in Attachment 1.

3.2 Watercourses

Watercourse identification followed the CTDEEP's Inland Wetland and Watercourses Act definition of "Watercourses" (Chapter 440: Section 22a-38).³ If a watercourse meeting the above definition was observed, blue survey flagging was hung along the centerline (for streams less than six feet in width) or along the top of the bank (for streams six feet or wider).

Flycatcher mapped two (2) watercourses, one perennial and one intermittent, within the Survey Area. Summary descriptions of watercourses are provided in Table 1, below. The location of each watercourse is shown on Figure 2, in Attachment 1.

¹ USACE. (1987). *Corps of Engineers wetlands delineation manual*. Environmental Laboratory. Environmental Laboratory U.S. Army Corps of Engineers, Waterways Experiment Station, Wetlands Research Program Technical Report Y-87-1. Vicksburg, MS. <https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/4532/>

² USACE (2012). *Regional supplement to the Corps of Engineers wetland delineation manual: Northcentral and Northeast region: Version 2.0*. Ed. J.S. Wakely, R.W. Lichvar and C.V. Noble. ERDC/EL TR-08-27. Vicksburg, MS: U.S. Army. <https://usace.contentdm.oclc.org/utills/getfile/collection/p266001coll1/id/7640>

³ CTDEEP. (1972). *Inland wetlands and watercourses act: regulations of Connecticut State agencies: Chapter 440: Wetlands and watercourses*. https://www.cga.ct.gov/current/pub/chap_440.htm

⁴ Windsor Locks Inland Wetlands and Watercourses Agency. (February 3, 2010). Inland wetlands and watercourses regulations of the Town of Windsor Locks, Connecticut. Retrieved June 9, 2022.

Table 1. Summary Descriptions of Wetlands Delineated Within the Survey Area

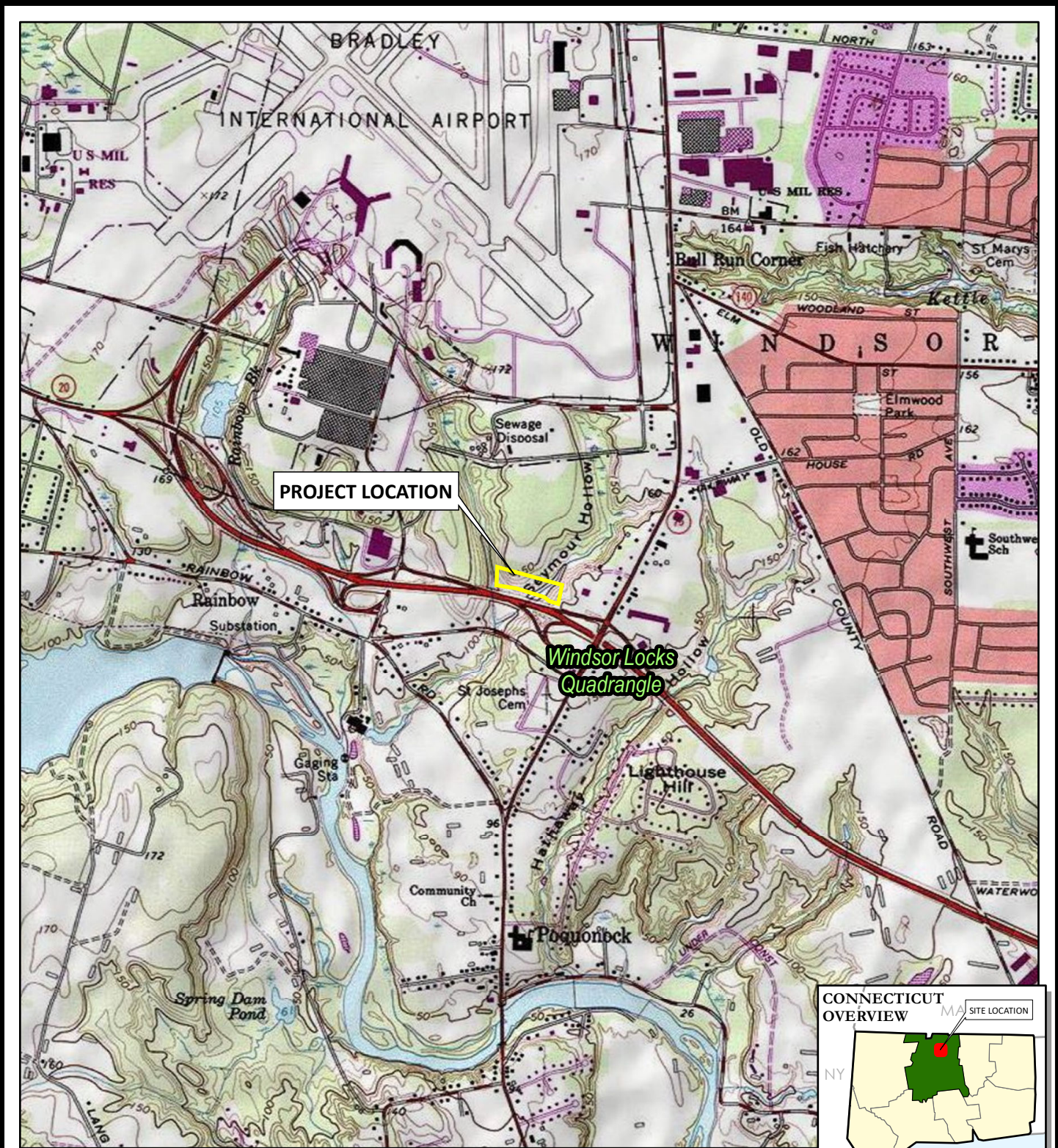
Resource ID	Cowardin Classification ¹	Hydrology Indicators	Dominant Vegetation	Hydric Soil Indicators	Description & Notes
W-MFT-1	PEM	Saturation (A3), Water-stained Leaves (B9), Presence of Reduced Iron (C4), Geomorphic Position (D2), FAC-Neutral Test (D5)	Asian bittersweet (<i>Celastrus orbiculatus</i>), Autumn olive (<i>Elaeagnus umbellata</i>), brookside alder, common reed, reed manna grass (<i>Glyceria maxima</i>), big bluestem (<i>Andropogon gerardii</i>)	Sandy Redox (S5)	Human made small isolated manmade stormwater drainage, fed by culvert. Soils are sandy redox.
W-MFT-2	PSS	High Water Table (A2), Saturation (A3), Water-Stained Leaves (B9), Geomorphic Position (D2), FAC-Neutral Test (D5)	Common reed, brookside alder, sweet gale (<i>Myrica gale</i>), American manna grass (<i>Glyceria grandis</i>), sedge species (<i>Carex spp.</i>)	Sandy Redox (S5)	Isolated human excavated depression. Soils Sandy redox.
W-MFT-3	PSS/ PEM	Saturation (A3), Water-Stained Leaves (B9), Geomorphic Position (D2), FAC-Neutral Test (D5)	Brookside alder, black willow, Asian bittersweet (<i>Celastrus orbiculatus</i>), common reed, late goldenrod (<i>Solidago gigantea</i>), wrinkle-leaf goldenrod (<i>Solidago rugosa</i>), American manna grass	Depleted Below Dark Surface (A11), Redox Dark Surface (F6)	Riparian floodplain connected to roadside drainage.
W-KMN-1	PSS	Water-Stained Leaves (B9), Geomorphic Position (D2)	Speckled alder (<i>Alnus incana</i>), Asian bittersweet, wrinkle-leaf goldenrod, aster species (<i>Asteraceae spp.</i>)	Three Chroma Sands (NE-S1)	Isolated portion of ditch with hydric soils. Fed by culverts.
¹ Wetland classifications per USFWS' Cowardin et al. (1979) https://www.fws.gov/wetlands/Documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States.pdf					

Table 2. Watercourse Summary

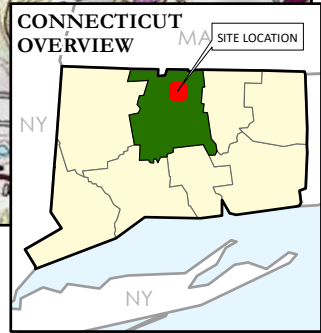
<i>Resource ID</i>	<i>Flow Regime</i>	<i>Flow Direction</i>	<i>Dominant Substrates</i>	<i>Approximate Width (ft)</i>	<i>Approximate Depth (in)</i>	<i>Associated Resources</i>	<i>Description</i>
S-MFT-1	Perennial	Southwest	Sand, gravel, cobble	20	12	W-MFT-3	Perennial stream begins at a culvert in northeast corner, diverted under human made parking area through culvert. Flows southwest through site. Exits site via a culvert under Bradley Field Conn Highway (State Route 20).
S-MFT-2	Intermittent	Southeast	Sand, silt	2	2	W-MFT-3	Tributary to S-MFT-1 fed by multiple culvert outlets.

ATTACHMENT 1

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.



PROJECT: **KEY CAPTURE ENERGY
CT 9 BATTERY STORAGE PROJECT
WINDSOR LOCKS, HARTFORD COUNTY, CT**

DRAWN BY:	D. KENWORTHY
CHECKED BY:	K. NICKERSON
MONTH:	MAY
YEAR:	2022
PROJ. NO.:	22F-3
CLIENT:	KEY CAPTURE





LEGEND:
 PROPOSED PROJECT AREA
 USGS 7.5-MINUTE QUADRANGLE BOUNDARY

FIGURE 1 - SITE LOCATION MAP (USGS)

Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet (Foot US)
Map Rotation: 0

Plot Date: 5/14/2023, 18:13:13 PM by DREWKENWORTHY -- LAYOUT: ANSI B(11"x17")
Path: C:\FLYCATCHER\Projects\KeyCapture\KCE_WindsorLocksCT9_Petition_Figs_Delin_11x17L.mxd

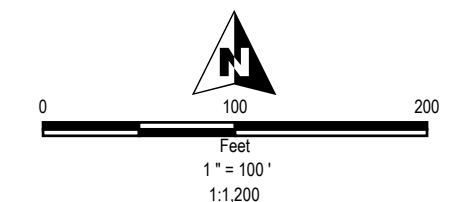


LEGEND

- PROJECT AREA
- CULVERT
- PVP
- ~ UPLAND DRAINAGE
- ~ DELINEATED INTERMITTENT STREAM
- ~ DELINEATED STREAM BANK
- ~ DELINEATED WETLAND BOUNDARY
- DELINEATED WETLAND
- DELINEATED PERENNIAL STREAM/RIVER



NOTES:
1 BASEMAP IMAGERY FROM ESRI/NAIP "WORLD IMAGERY" SERVICE LAYER.



PROJECT: **KEY CAPTURE ENERGY
CT 9 BATTERY STORAGE PROJECT
WINDSOR LOCKS, HARTFORD COUNTY, CT**

TITLE: **WETLAND DELINEATION RESULTS**

DRAWN BY: D. KENWORTHY	PROJ NO.: 22-F3
CHECKED BY: K. NICKERSON	FIGURE 2
MONTH: MAY	
YEAR: 2023	

FILE NO: KCE_WindsorLocksCT9_Petition_Fig5_Delin_11x17L.mxd	

ATTACHMENT 2

Site Photographs



Project site, facing west from access road.



Wetland W-MFT-1



Storm drain connected to wetland W-MFT-1



Wetland W-MFT-2



Wetland W-MFT-3



Stream S-MFT-1



Stream S-MFT-1



Facing southwest from culvert inlet of S-MFT-1.