

**APPENDIX M**  
**CASE 10-T-0189**  
**WATERBODY INVENTORY (114A) & WETLAND**  
**DELINEATION REPORT**

# Wetland & Waterbodies Delineation Report



## Champlain Hudson Power Express Segment 11-Package 7A

### CSX Railroad - Catskill, New York

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*CHA Project Number: 066076*

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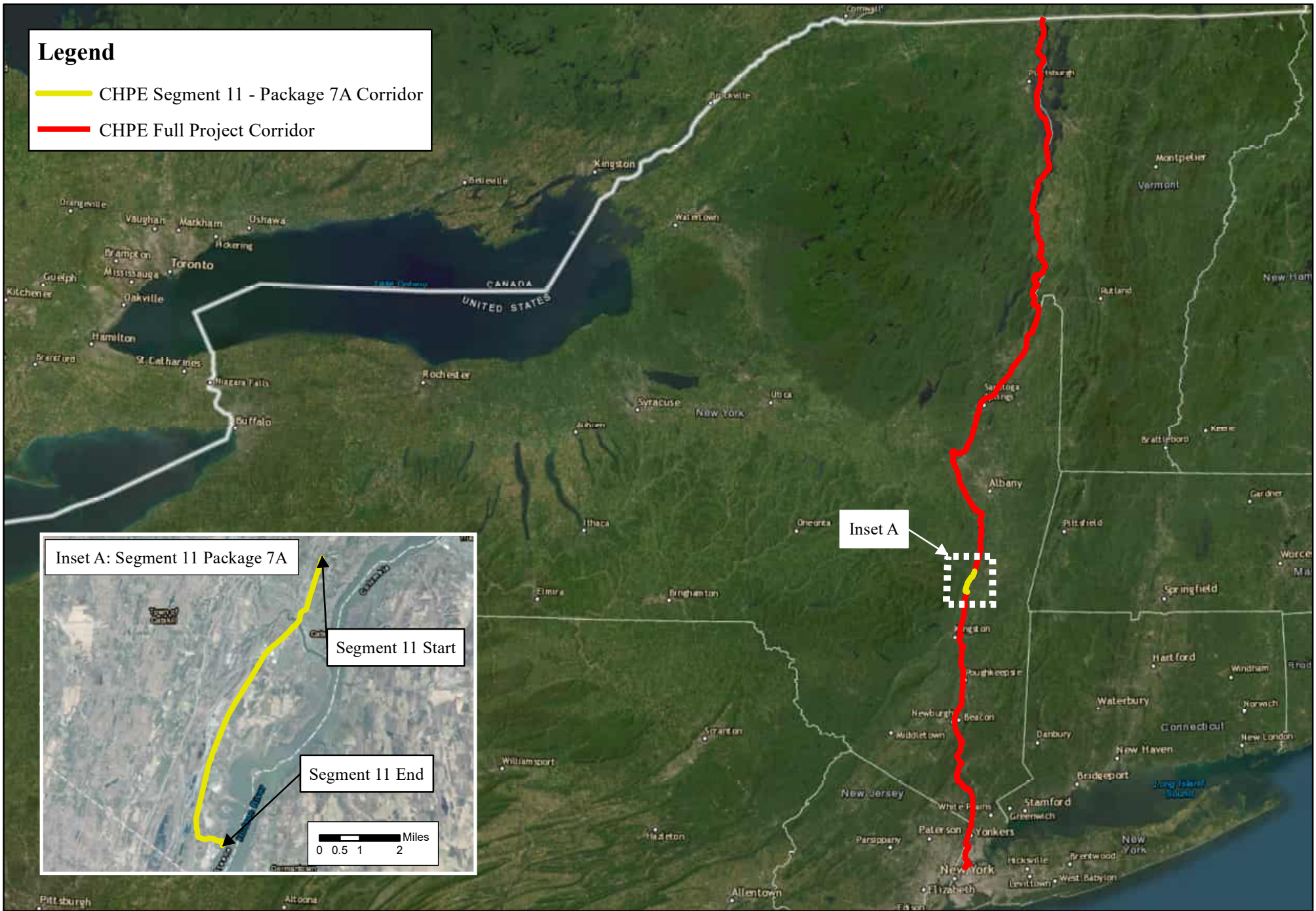
## **1.0 INTRODUCTION**

CHA Consulting, Inc. (“CHA”) has prepared this wetland and waterbodies delineation report on behalf of Champlain Hudson Power Express, Inc. (“CHPE”) and Kiewit Construction (Kiewit) for the Champlain Hudson Power Express Project (Project). CHA was retained by Kiewit to identify and delineate jurisdictional wetlands and waterbodies regulated under Section 404 of the Clean Water Act (CWA), Section 10 of the Rivers and Harbors Act of 1899, and New York State Article 24 Freshwater Wetlands Act (FWW), Article 25 Tidal Wetlands Act & Article 15 (Protection of Waters) of the Environmental Conservation Law, along the overland transmission cable route that follows State, county and local roadways and the CSX railroad rights-of-way (“ROW”), herein referred to as the Project Corridor. Delineations were conducted with the objective of verifying and updating previous wetland delineations performed for the Project Corridor as part of the Article VII and Section 10/404 permitting processes. This report describes the wetland delineation methodology and the existing wetland and waterbody resources that were identified in the Project Corridor (also defined as the Jurisdictional Determination (JD) limits) during field surveys for the overland portions of the Project.

## **2.0 SEGMENT 11-PACKAGE 7A CORRIDOR OVERVIEW**

The entire Project Corridor is approximately 339 miles from Montreal, Quebec, Canada to New York City, New York, USA. Figure 1 below shows the route from the Canadian border to New York City and highlights the approximately 8.7 miles of the Segment 11- Package 7A Project Corridor that was investigated for wetlands and waterbodies.

Segment 11-Package 7A begins in Catskill, NY at station 70000+00 on the CSX railroad. Segment 11-Package 7A extends south approximately 8.7 miles along the CSX railroad as well as along Allen Street, Route 9W and Alpha Boulevard to where Segment 11-Package 7A terminates at the west bank of the Hudson River at the end of Alpha Boulevard in Catskill, NY.



### 3.0 WETLAND DELINEATION METHODOLOGY

To determine the potential for wetland impacts from construction of the Project, Fisher Associates (Fisher), Shumaker Consulting Engineering & Land Surveying, D.P.C. (Shumaker), Greenman-Pedersen, Inc., and CHA, Inc., collectively referred to as the CHA Team, assessed the Project Corridor in the field for the presence of federal (Section 404 CWA & Section 10 of the Rivers and Harbors Act of 1899) and state (Article 24 FWW, Article 25 Tidal Wetlands Act & Article 15 (Protection of Waters)) jurisdictional wetlands. Wetland scientists conducted wetland delineations in November and December 2021 and throughout 2022 and early 2023. The delineation criteria and methodology were performed in accordance with the *1987 Corps of Engineers Wetland Delineation Manual*, the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* Version 2.0 (January 2012), as well as the *New York State Freshwater Wetlands Delineation Manual* (Browne et. al., 1995).

The Project Corridor for the surveyed portions of the project included the land within the existing CSX railroad ROW and areas within and outside of ROWs along roadways such as Allen Street, Route 9W and Alpha Boulevard, and areas of undeveloped lands that connect these ROW's. The initial wetland delineation limits were approximately 50 feet from the edge of pavement and approximately 100 feet from the outside edge of rail, limited to the side of the road or railroad corridor on which the alignment follows and primarily within the ROW of the aforementioned roads and railroad. However, these limits vary considerably throughout this package to accommodate alignment shifts and access roads, which required supplemental delineation in 2022 and 2023.

In accordance with the procedures provided in the *Corps of Engineers Wetland Delineation Manual* (1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, Version 2.0 (January 2012), the "Routine Wetland Determination" method was used to delineate wetland boundaries.

The wetland boundaries were determined in the field based on the three-parameter approach, whereby an area is a wetland if it exhibits vegetation adapted to wet conditions (hydrophytes), hydric soils, and the presence or evidence of water at or near the soil surface during the growing season (hydrology).

Coded surveyor's ribbons (e.g. flag code A-1, A-2, etc.) were placed along the wetland boundaries based on observations of vegetation, soils and hydrologic conditions. Data points were recorded along the wetland boundaries at various locations across different vegetative community types correlating to each wetland. Wetland and upland data points were recorded to show the difference between the wetland and upland habitats. At a minimum, one data point set (wetland and upland) was collected for each wetland. Additional data points were collected for large wetlands and for changes in vegetative communities. Wetland Determination Data Sheets corresponding to each point can be found in Attachment 1.

Wetlands within the Segment 11- Package 7A Project Corridor fall under the jurisdiction of the and the New York State Department of Environmental Conservation (NYSDEC) and/or the U.S. Army Corps of Engineers (USACE). The New York State methodology similarly recognizes the three parameters of vegetation, soils, and hydrology; however, under the New York State method the hydric vegetation criterion is mandatory, while the other two parameters are not (Browne et. al. 1995). Wetlands regulated by the NYSDEC must be at least 12.4 acres (5 hectares) in size, unless they are deemed to have unusual local importance (Article 24 FWW). The NYSDEC publishes maps of wetland areas under state jurisdiction; however, it uses field delineation to determine the precise boundaries of these wetland areas.

Prior to actual field delineations for wetland resources, CHA reviewed USGS 7.5-minute topographic maps, aerial photographs, National Wetland Inventory (NWI) mapping, United States Department of Agriculture Natural Resources Conservation Service (NRCS) soil mapping, and NYSDEC freshwater wetlands mapping to identify potential wetland features present within the Project Corridor. More importantly, CHA used the previous wetland delineations prepared for this Project Corridor for the purposes of verifying and modifying the previous delineation. Refer to Attachment 2 for NWI and NYSDEC Freshwater Wetland & Stream Mapping and Attachment 3 for NRCS Soil Mapping.

Ditches that met the three parameters for wetland delineation (i.e., presence of hydrology, hydric soils, and hydrophytic vegetation) were identified as a wetland community. Those that did not, but carried stream flow from off-site (redirecting flow through the ditch), were categorized as streams.

Waterbodies within the Project Corridor, including streams under NYSDEC Article 15 jurisdiction, were identified by the presence of an ordinary high-water mark (OHWM) or stream channel. Delineation and flagging were completed to identify the ordinary high-water mark (OHWM) for most perennial and intermittent streams.

This report documents the wetlands and waterbodies potentially under federal and State jurisdiction that were identified in the Project Corridor along the current proposed underground transmission cable route. Summaries of wetlands that were identified are provided in Table 4-1 in Attachment 4. Wetlands and Waterbodies Delineation Mapping is included in Attachment 5. Wetland determination data forms and photographic documentation of the wetlands are included in Attachment 1.

#### **4.0 WETLAND & WATERBODIES DELINEATION RESULTS**

A total of 32 wetland areas were identified within the Project Corridor, totaling approximately 32 acres within the JD boundary. Table 4-1 in Attachment 4 provides a summary of the wetlands identified along the Project Corridor, including their classification in accordance with Cowardin et al. (1979) and their state or federal jurisdiction. Of these delineated wetlands, two (2) correspond with wetlands mapped by the NYSDEC. These include NYSDEC mapped wetlands HS-101 and C-23. HS-101 is subject to NYSDEC Article 24. Observed field indicators suggest that the portions of wetland C-23 within the Project Corridor are tidal-influenced. Therefore, wetland C-23 is subject to NYSDEC Article 25, as well.

Narrative descriptions of wetland vegetation, hydrology, and soils observed within the Project Corridor are presented in the following sections. The wetlands and waterbodies delineated within the surveyed areas are summarized in Table 4-1 and Table 4-2. Table 4-3 provides the soil series information. Refer to Attachment 4 for each of these tables. The Wetlands and Waterbodies Delineation Mapping provided in Attachment 5 shows the locations of delineated wetlands and waterbodies. Photographs of the waterbodies can be found in Attachment 6.

## 4.1 VEGETATION

Vegetative communities within wetlands are described according to *Ecological Communities of New York State, Second Edition* (Edinger 2014)<sup>1</sup> and *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979)<sup>2</sup>. Using this hierarchical wetland classification system three primary cover types were identified for vegetated wetlands in the Project Corridor. These include palustrine emergent (PEM), palustrine scrub-shrub (PSS), and palustrine forested (PFO) wetlands. Some wetlands contained multiple community types. Open water areas (i.e. ponds) were identified as palustrine unconsolidated bottom (PUB).

### 4.1.1 Palustrine Emergent Wetland

The palustrine emergent wetland cover type is characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens (Cowardin et. al., 1979), and with less than 50 percent aerial cover by shrubs and/or trees. The freshwater emergent wetlands along the Project Corridor primarily include shallow emergent marsh, freshwater tidal marsh, common reed marsh and purple loosestrife marsh (Edinger et. al., 2014).

Shallow emergent marshes occur on mineral soils or deep muck soils that are permanently saturated and seasonally flooded. Water depths range from 6 inches to 3.3 feet during flood stages (Edinger et. al., 2014). Characteristic vegetation of shallow emergent marshes within the Project Corridor includes sensitive fern (*Onoclea sensibilis*), rough goldenrod (*Solidago rugosa*), giant goldenrod (*Solidago gigantea*), devil's beggarticks (*Bidens frondosa*), scouring rush (*Equisetum hyemale*), field horsetail (*Equisetum arvense*), cattails (*Typha* spp.), sedges (*Carex* spp.), asters (*Symphyotrichum* spp.), reed canary grass (*Phalaris arundinacea*) and soft rush (*Juncus effusus*). Invasive species observed within the shallow emergent marshes include common reed (*Phragmites*

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<sup>1</sup> Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reshke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

<sup>2</sup> Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe, 1979. *Classification of wetlands and deepwater habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

*australis*), purple loosestrife (*Lythrum salicaria*) honeysuckle (*Lonicera spp.*) and common buckthorn (*Rhamnus cathartica*).

Freshwater tidal marsh occurs in shallow bays, shoals, and at the mouth of tributaries of large tidal river systems where the water is usually fresh (salinity less than 0.5 ppt), and less than 2 m (6 ft.) deep at high tide (Edinger et. al., 2014). This community is limited to the emergent wetland portions of NYS FWW C-23.

Common reed marsh and purple loosestrife marsh consist of disturbed marshes where common reed or purple loosestrife has become dominant (Edinger et. al., 2014). This community was commonly found within disturbed areas adjacent to the rail bed.

Linear wetland ditches, which have been constructed for drainage or irrigation, are commonly found along the railroad and road ROW's. Vegetation within the ditches is typically dominated by invasive species such as common reed, purple loosestrife, and reed canary grass; however, some areas may be dominated by native, non-invasive wetland species.

#### **4.1.2 Palustrine Scrub-Shrub Wetland**

The scrub-shrub wetland cover type includes areas that are dominated by shrubs and saplings that are less than 6 meters (20 feet) tall (Cowardin et. al., 1979), and have less than 50 percent aerial cover by trees. Scrub-shrub wetlands along the Project Corridor were dominated by silky dogwood (*Cornus amomum*), gray dogwood (*Cornus racemosa*), common buckthorn and honeysuckle. Other vegetation observed includes red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), pussy willow (*Salix discolor*), gray birch (*Betula populifolia*), black willow (*Salix nigra*), sensitive fern, moneywort (*Lysimachia nummularia*) and field horsetail. Invasive species observed include honeysuckle and common buckthorn.

Freshwater tidal swamp is a forested or shrub-dominated tidal wetland that occurs in lowlands along large river systems characterized by gentle slope gradients coupled with tidal influence over considerable distances (Edinger et. al., 2014). Within the Project Corridor, the shrub-dominated freshwater tidal swamp community is limited to portions of NYS FWW C-23.



### 4.1.3 Palustrine Forested Wetland

Forested wetland cover types are dominated by trees and shrubs that have developed a tolerance to a seasonal high-water table. For a community to be characterized as forested, a wetland must be dominated by trees and shrubs that are at least six meters (20 feet) tall (Cowardin et. al., 1979). Forested wetlands typically have a mature tree canopy, and depending upon the species and density, can have a broad range of understory and groundcover community components (Edinger et al., 2014). Red maple hardwood swamp and freshwater tidal swamp are the forested wetland communities within the Project Corridor.

Red maple-hardwood swamps occur in poorly drained depressions, usually on inorganic soils. Red maple is either the only dominant tree species or is codominant with one or more hardwoods (Edinger et. al, 2014). Hardwood species observed within this community type within the Project Corridor include red maple, green ash, American elm (*Ulmus americana*), gray birch, swamp white oak (*Quercus bicolor*) and white pine (*Pinus strobus*). Shrub species commonly observed include dogwoods, gray birch, spicebush (*Lindera benzoin*), American elm and honeysuckle. The herbaceous layer typically includes sensitive fern, field horsetail, moneywort and young growth of the tree and shrub species. Invasive species primarily included honeysuckle and buckthorn.

Freshwater tidal swamp is a forested or shrub-dominated tidal wetland that occurs in lowlands along large river systems characterized by gentle slope gradients coupled with tidal influence over considerable distances (Edinger et. al., 2014). Within the Project Corridor, the forested freshwater tidal swamp community is limited to portions of NYS FWW C-23.

### 4.1.4 Open Water

There is one small pond located along the Project Corridor adjacent to the railroad ROW. As previously noted, this open water community is identified as palustrine unconsolidated bottom (PUB). It is characterized by a vegetation cover of less than 30 percent, although emergent and shrubby vegetation borders the open water area.

## **4.2 HYDROLOGY**

### **4.2.1 Streams**

Table 4-2 lists the 17 streams (9 perennial and 8 intermittent) identified within the Project Corridor, which is located within the Lower Hudson Watershed. This watershed extends from the Battery at the southern end of Manhattan to the Troy Dam at the confluence of the Mohawk River. The basin is 12,800 square miles, most of which is within New York State (NYSDEC 2022). Perennial waterbodies within the Project Corridor include the Catskill Creek, Post Creek and Hans Vosenkill, as well as several unnamed tributaries identified during the field delineations.

### **4.2.2 Wetlands**

Site hydrology was examined within each wetland and adjacent upland areas. Indicators of wetland hydrology included surface water (A1), high water table (A2), saturation (A3), water-stained leaves (B9), drainage patterns (B10), presence of reduced iron (C4), geomorphic position (D2), microtopographic relief (D4) and FAC-neutral test (D5) (Attachment 1). Hydrologic factors contributing to the presence of wetland hydrology within wetlands in the Project Corridor included inundation with pond or stream water, temporarily ponded runoff, and seasonally to permanently shallow groundwater tables.

Hydrology along the Project Corridor has been historically altered by road and railroad drainage ditches. These ditches were inspected for the presence or absence of wetland indicators and hydrologic connectivity to wetlands or streams. Ditches that met the three parameters for wetland delineation (i.e., presence of hydrology, hydric soils, and hydrophytic vegetation) were identified as a wetland community.

## **4.3 SOILS**

The United States Department of Agriculture NRCS soil map units for the Project Corridor are provided in Attachment 3. Hydric soil indicators include depleted matrix (F3) and redox dark surface (F6) (Attachment 1). Within the Project Corridor, a total of 25 different soil types are mapped by the NRCS. The mapped soil types range from somewhat excessively drained to very poorly drained soils. According to the soil map descriptions (Attachment 3 and Attachment 4-

Table 4-3), four (4) of the soils mapped within the Project Corridor are rated as hydric soils (Covington and Madalin soils, Fluvaquents-Udifluvents complex, frequently flooded, Medisaprist, inundated and Medisaprist-Hydraquents, tidal marsh). Hydric soils are defined as soils “that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil” (Federal Register, 1994). Table 4-3 summarizes the soil series in the Project Corridor and lists the soils that are classified as hydric (or associated with wetland hydrology) in the Project Corridor.

Many soils within the Project Corridor are formed from glacial parent materials including outwash, dense till, loose till, and glaciomarine deposits. In active floodplains, soils are formed in recent alluvium. Anthropogenically disturbed soils, associated with road and railroad construction and operation, are common within the Project Corridor. The disturbed soils consist of disturbed natural deposits or human transported materials.

#### **4.4 NATURAL RESOURCE CONSERVATION SERVICE SOIL SERIES DESCRIPTIONS**

The following are the abbreviated descriptions of each of the relevant soil types taken from the USDA Web Soil Survey (NRCS 2022). Soils survey mapping and additional information regarding relevant soil characteristics are provided in Attachment 3.

##### **Covington & Madalin Series (Co)**

The Covington soils are very deep and poorly drained soils formed in calcareous glaciolacustrine and estuarine clays on glacial lake plains. Slopes range from 0 to 8 percent. The A horizon consists of very dark brown silty clay with strong medium and coarse granular structure. The B horizon is dark gray to very dark gray clay with a weak to strong structure. The C horizon is dark gray clay with a weak to moderate structure.

The Madalin soils are very deep poorly drained soils formed in water deposited materials on lake plains and depressions in uplands. Slopes range from 0 to 3 percent. The A horizon is very dark gray silt loam with moderate medium subangular structure. The B horizon is dark grayish brown

with a silty clay texture. The structure is weak subangular. The C horizon is grayish brown stratified silt to clay with moderate medium platy structure.

### **Fluvaquents (Fu)**

These very deep, somewhat poorly drained to very poorly drained soils formed in material recently deposited by rivers and streams. These soils are found on the most actively flooded areas of floodplains along secondary and major streams. The slopes range from 0 to 3 percent. Little or no soil profile development is seen in Fluvaquents. The surface layer typically has a hue of 10YR through 5Y, with low value and chroma. The textures are loamy sand to silt loam and may be gravelly or very gravelly. The substratum typically has a hue of 10YR to 5Y with values of 3 through 6 and chroma of less than 2. The textures are sandy loam to silty clay loam and may be gravelly or very gravelly.

### **Farmington Series (FaC, FaD and FaE)**

These shallow, well drained and somewhat excessively drained soils formed in till. Slopes range from 0 to 70 percent and bedrock is at a depth of 10 to 20 inches. The A horizon is dark grayish brown silt loam with moderate medium and fine granular structure. The B horizon is composed of a yellowish brown or brown silt loam to loam with weak or moderate, fine or medium subangular or granular structure. The R horizon is dominantly limestone, dolomite, or dolomitic limestone bedrock.

### **Hudson & Vergennes Series (HvB, HvC, HvE, HwC3 & HwD3)**

The Hudson soils are very deep, moderately well drained soils formed in clayey and silty lacustrine sediments. These soils are in convex lake plains, dissected lower valley side slopes and rolling through hilly moraines. Slopes can range from 0 to 60 percent. The A horizon is brown silt loam with moderate medium granular structure. The E horizon, when present, is brown silt loam with weak thick platy structure. The B horizon is yellowish brown to brown silty clay with moderate very coarse prismatic structure. The C horizon is mixed grayish brown and light olive brown silty clay, with massive structure, or plate-like divisions.

The Vergennes soils are very deep, moderately well drained soils on glacial lake plains. These soils formed in calcareous estuarine and glaciolacustrine clays. Slopes range from 0 to 50 percent. The A horizon is dark grayish brown clay with weak medium and coarse subangular blocky structure. Occasionally, a clay, silty clay, silty clay loam, or silt loam E horizon is present. The B horizon is typically brown clay, with more dark grayish brown color with depth. The C horizon is generally clay with silt and silty clay varves.

### **Kingsbury & Rhinebeck Series (KrA & KrB)**

Kingsbury soils are very deep, somewhat poorly drained soils formed in lacustrine or marine sediments. They are nearly level and gently sloping on lake plains. Slopes range from 0 to 8 percent slope. The A horizon is very dark grayish brown silty clay with strong medium granular structure. The E horizon is mixed brown and yellowish brown silty clay. The B horizon consists dark grayish brown clay angular or subangular blocky structure, within coarse or very coarse prisms in some pedons. The C horizon generally has similar color to the deeper portions of the B horizon, although redoximorphic features generally have lower contrast. This horizon ranges from silty clay loam to clay, and has massive structure, which, when disturbed, can part into aggregates resembling very fine blocky structure.

Rhinebeck soils are very deep, somewhat poorly drained soils formed in clayey lacustrine sediments. They are found on glacial lake plains and uplands mantled with lake sediments. Slopes range from 0 to 15 percent. The A horizon is very dark grayish brownish silt loam with moderate medium granular structure. The B horizon is light olive brown silty clay or silty clay loam with moderate medium subangular blocky structure. The C horizon varies in texture and is massive or varved, or have very coarse prismatic structure in the upper part.

### **Nassau Series (NaC, NrC, NrD & NrE)**

These shallow, somewhat excessively drained soils formed in channery till derived from acid shale and slate. They are nearly level to very steep soils that overlie shale bedrock. Slopes range from 0 to 70 percent. The A horizon is dark brown channery silt loam with weak fine granular structure. The B horizon is yellowish brown very channery silt loam with weak fine subangular blocky structure. The C horizon is greenish gray folded shale interbedded with red and green shale.

**Riverhead Series (RhA, RhB, RhC & RhD)**

These very deep, well drained soils formed in glacial outwash, deposits. They can be found on beaches, water-sorted moraines, valley trains and outwash plains. Slopes range from 0 to 50 percent. The A horizon is brown sandy loam with weak fine granular structure. The B horizon is strong brown to yellowish brown with a sandy loam to loamy sand texture, becoming gravelly with depth. The C horizon is yellowish brown, brown or very pale brown gravelly loamy sand or sand. It is structureless.

**Tunkhannock and Chenango Series (TwE)**

Tunkhannock soils are very deep, well to somewhat excessively drained soils. These soils formed in water-sorted glacial material derived from reddish sandstone, siltstone, and shale. Slope ranges from 0 to 60 percent. The A horizon is brown gravelly loam with weak granular structure. The B horizon is brown or reddish brown gravelly loam. The C horizon is reddish brown extremely gravelly loamy sand and stratified loamy fine sand.

The Chenango soils are very deep, well and somewhat excessively well drained soils. These soils formed in water-sorted material on alluvial fans, kames, eskers, terraces and outwash plains. Slopes range for 0 to 60 percent. The A horizon is very dark grayish brown with weak fine and medium granular structure. The B horizon is dark yellowish brown to brown gravelly silt loam and the C horizon is dark grayish brown extremely gravelly loamy coarse sand.

**Udorthents (Ur)**

These are very deep, nearly level to gently sloping areas of well drained loamy soils that are a result of man-made cuts and fills in loamy upland soils. Slopes range from 0 to 8 percent. Typically, the surface layer is dark brown silt loam extending to 5 inches. Layers below the surface are brown and yellowish-brown silt loam containing up to 80 percent rock fragments to a depth of 72 inches or more.

## 5.0 SUMMARY

Wetlands identified along the Project Corridor include shallow emergent marsh, freshwater tidal marsh, common reed marsh, shrub swamp, red maple-hardwood swamp and freshwater tidal swamp. A small pond also occurs. Stream communities include artificial ditches, intermittent streams, and perennial streams.

Land use in the Project Corridor is diverse, ranging from rural, agricultural, and forested areas to more developed areas such as the Village of Catskill. Because most of the Project Corridor consists of existing railroad and roadway corridors, many wetlands are characterized by previous anthropogenic disturbance and/or the presence of invasive plant species. The wetland boundaries abutting the rail or road are typically defined by the edge of the soil fill for the railroad and highway embankments.

Confirmation of the wetland boundaries are the responsibility of the involved regulatory agencies with jurisdiction over wetlands and waterbodies within this Phase of the overall project. As previously noted, wetlands within Segment 11-Package 7A Project Corridor are regulated by USACE (Section 10/404). Based on review of the NYSDEC wetland mapping, three wetland areas are identified as regulated under Articles 24 & 25. These wetlands correspond to two mapped wetlands (HS-101 (Article 24) and C-23 (Article 25)). It is anticipated that USACE will take jurisdiction over all the mapped wetlands within the Project Corridor and NYSDEC will take jurisdiction over the three wetlands associated with NYSDEC freshwater and tidal wetlands. Final jurisdictional determinations, as needed, will be made by the respective agencies.

## 6.0 REFERENCES

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**ATTACHMENT 1**  
**WETLAND DETERMINATION DATA SHEETS AND**  
**WETLAND PHOTOGRAPHS**

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 2/2/2023

Applicant/Owner: TDI State: NY Sampling Point: 7A-W Wet (PEM)

Investigator(s): N. Frazer & J. Greaves Section, Township, Range: \_\_\_\_\_

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope %: 2

Subregion (LRR or MLRA): LRR R Lat: 42.243688 Long: -73.859335 Datum: WGS84

Soil Map Unit Name: NrD - Nassau channery silt loam, hilly, very rocky NWI classification: PEM1

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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>near flag 7A-W-50</u>
---	--

Remarks: (Explain alternative procedures here or in a separate report.)  
 Purple loosestrife marsh within a periodically maintained power line ROW.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators</u> (minimum of one is required; check all that apply) <table style="width:100%;"> <tr> <td><input checked="" type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators</u> (minimum of two required) <table style="width:100%;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input checked="" type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Inundation limited to patchy areas within tire ruts and other small depressions.

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 7A-W Wet (PEM)

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>70</u></td> <td>x 1 = <u>70</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>180</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.57</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>70</u>	x 1 = <u>70</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>115</u> (A)	<u>180</u> (B)	Prevalence Index = B/A = <u>1.57</u>	
Total % Cover of:	Multiply by:																			
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Column Totals: <u>115</u> (A)	<u>180</u> (B)																			
Prevalence Index = B/A = <u>1.57</u>																				
=Total Cover																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u>Lonicera morrowii</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u>Cornus amomum</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover																				
=Total Cover				<b>Hydrophytic Vegetation Indicators:</b>  <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
=Total Cover																				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u>Lythrum salicaria</u>	<u>60</u>	<u>Yes</u>	<u>OBL</u>																	
2. <u>Bidens frondosa</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Solidago gigantea</u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
4. <u>Persicaria sagittata</u>	<u>10</u>	<u>No</u>	<u>OBL</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
=Total Cover																				
=Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover																				
=Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																

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

## SOIL

Sampling Point: 7A-W Wet (PEM)

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/1	98	10YR 3/6	2	c	m	Loamy/Clayey	Prominent redox concentrations
2-15	2.5Y 4/2	93	10YR 4/6	2	c	m	Loamy/Clayey	Prominent redox concentrations
			10YR 2/1	5	d	m		
15-18	7.5YR 3/2	80	10YR 4/6	20	c	m	Loamy/Clayey	Prominent redox concentrations
			10YR 2/1	5	c	m		Faint redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Chroma Sands (S11) (LRR K, L)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Mesic Spodic (A17)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> (MLRA 144A, 145, 149B)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Marl (F10) (LRR K, L)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 145)
<input type="checkbox"/> Stripped Matrix (S6)	

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Red Parent Material (F21) (outside MLRA 145)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

<sup>3</sup>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 ☐

Remarks:



**Wetland 7A-W (PEM community) - View facing east.**



**Wetland 7A-W (PEM community) - Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 2/2/2023  
Applicant/Owner: TDI State: NY Sampling Point: 7A-W Upl (PEM)  
Investigator(s): N. Frazer & J. Greaves Section, Township, Range: \_\_\_\_\_  
Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope %: 5  
Subregion (LRR or MLRA): LRR R Lat: 42.243770 Long: -73.859324 Datum: WGS84  
Soil Map Unit Name: NrD - Nassau channery silt loam, hilly, very rocky NWI classification: \_\_\_\_\_  
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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>Upland adjacent to Wetland 7A-W near flag 50</u>
Remarks: (Explain alternative procedures here or in a separate report.) Successional old field within periodically maintained power line ROW.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ____ Surface Water (A1)      ____ Water-Stained Leaves (B9) ____ High Water Table (A2)      ____ Aquatic Fauna (B13) ____ Saturation (A3)      ____ Marl Deposits (B15) ____ Water Marks (B1)      ____ Hydrogen Sulfide Odor (C1) ____ Sediment Deposits (B2)      ____ Oxidized Rhizospheres on Living Roots (C3) ____ Drift Deposits (B3)      ____ Presence of Reduced Iron (C4) ____ Algal Mat or Crust (B4)      ____ Recent Iron Reduction in Tilled Soils (C6) ____ Iron Deposits (B5)      ____ Thin Muck Surface (C7) ____ Inundation Visible on Aerial Imagery (B7)      ____ Other (Explain in Remarks) ____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ____ 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) <u>?</u> ____ Shallow Aquitard (D3) ____ Microtopographic Relief (D4) ____ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 7A-W Upl (PEM)

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>105</u> (A)</td> <td><u>405</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>3.86</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>105</u> (A)	<u>405</u> (B)	Prevalence Index = B/A = <u>3.86</u>	
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2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		=Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )																				
1. <u>Lonicera morrowii</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5'</u> )																				
1. <u>Solidago canadensis</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>X</u>																
2. <u>Setaria pumila</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Lonicera morrowii</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
4. <u>Potentilla simplex</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
5. <u>Monarda punctata</u>	<u>5</u>	<u>No</u>	<u>UPL</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
		=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		=Total Cover																		

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



## SOIL

Sampling Point: 7A-W Upl (PEM)

[illegible]





**Upland 7A-W (PEM community) - View facing**



**Upland 7A-W (PEM community) - Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 2/2/2023  
Applicant/Owner: TDI State: NY Sampling Point: 7A-W Wet (PFO)  
Investigator(s): N. Frazer & J. Greaves Section, Township, Range: \_\_\_\_\_  
Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope %: 3  
Subregion (LRR or MLRA): LRR R Lat: 42.244490 Long: -73.858448 Datum: WGS84  
Soil Map Unit Name: NrD - Nassau channery silt loam, hilly, very rocky NWI classification: PFO4  
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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>near flag 7A-W-7</u>
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Remarks: (Explain alternative procedures here or in a separate report.)  
White cedar wetland.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators</u> (minimum of one is required; check all that apply) ____ Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) ____ High Water Table (A2) _____ Aquatic Fauna (B13) <u>X</u> Saturation (A3) _____ Marl Deposits (B15) ____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) <u>X</u> Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) ____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) ____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) ____ Iron Deposits (B5) _____ Thin Muck Surface (C7) ____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) ____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators</u> (minimum of two required) ____ Surface Soil Cracks (B6) <u>X</u> 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) <u>X</u> Geomorphic Position (D2) ____ Shallow Aquitard (D3) ____ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 7A-W Wet (PFO)

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u><i>Thuja occidentalis</i></u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.3%</u> (A/B)																
2. <u><i>Acer rubrum</i></u>	<u>10</u>	<u>No</u>	<u>FAC</u>																	
3. <u><i>Fraxinus pennsylvanica</i></u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>70</u>	=Total Cover																	
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u><i>Fraxinus pennsylvanica</i></u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>7</u></td> <td>x 4 = <u>28</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>107</u> (A)</td> <td><u>238</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.22</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>7</u>	x 4 = <u>28</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>107</u> (A)	<u>238</u> (B)	Prevalence Index = B/A = <u>2.22</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>90</u>	x 2 = <u>180</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>7</u>	x 4 = <u>28</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>107</u> (A)	<u>238</u> (B)																			
Prevalence Index = B/A = <u>2.22</u>																				
2. <u><i>Lonicera morrowii</i></u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u><i>Rosa multiflora</i></u>	<u>2</u>	<u>No</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>17</u>	=Total Cover																	
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u><i>Onoclea sensibilis</i></u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u><i>Fraxinus pennsylvanica</i></u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u><i>Cornus amomum</i></u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
		<u>20</u>	=Total Cover																	
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		_____	=Total Cover																	

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

## SOIL

Sampling Point: 7A-W Wet (PFO)

[illegible]





**Wetland 7A-W (PFO community) - View facing east.**



**Wetland 7A-W (PFO community) - Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 2/2/2023  
Applicant/Owner: TDI State: NY Sampling Point: 7A-W Upl (PFO)  
Investigator(s): N. Frazer & J. Greaves Section, Township, Range: \_\_\_\_\_  
Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope %: 15  
Subregion (LRR or MLRA): LRR R Lat: 42.243406 Long: -73.858858 Datum: WGS84  
Soil Map Unit Name: NrD - Nassau channery silt loam, hilly, very rocky NWI classification: \_\_\_\_\_  
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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>near flag 7A-W-7</u>
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Remarks: (Explain alternative procedures here or in a separate report.)  
Mixed evergreen/deciduous forest.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators</u> (minimum of one is required; check all that apply) ____ Surface Water (A1)      ____ Water-Stained Leaves (B9) ____ High Water Table (A2)      ____ Aquatic Fauna (B13) ____ Saturation (A3)      ____ Marl Deposits (B15) ____ Water Marks (B1)      ____ Hydrogen Sulfide Odor (C1) ____ Sediment Deposits (B2)      ____ Oxidized Rhizospheres on Living Roots (C3) ____ Drift Deposits (B3)      ____ Presence of Reduced Iron (C4) ____ Algal Mat or Crust (B4)      ____ Recent Iron Reduction in Tilled Soils (C6) ____ Iron Deposits (B5)      ____ Thin Muck Surface (C7) ____ Inundation Visible on Aerial Imagery (B7)      ____ Other (Explain in Remarks) ____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators</u> (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)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 7A-W Upl (PFO)

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u><i>Thuja occidentalis</i></u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25.0%</u> (A/B)																
2. <u><i>Acer rubrum</i></u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u><i>Acer saccharum</i></u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
4. <u><i>Pinus strobus</i></u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
5. <u><i>Quercus rubra</i></u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>100</u>		=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>83</u></td> <td>x 4 = <u>332</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>123</u></td> <td>(A) <u>432</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.51</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>83</u>	x 4 = <u>332</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>123</u>	(A) <u>432</u> (B)	Prevalence Index = B/A = <u>3.51</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>83</u>	x 4 = <u>332</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>123</u>	(A) <u>432</u> (B)																			
Prevalence Index = B/A = <u>3.51</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u><i>Acer saccharum</i></u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>5</u>		=Total Cover																		
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u><i>Alliaria petiolata</i></u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>_____</u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u><i>Symphyotrichum ericoides</i></u>	<u>8</u>	<u>Yes</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>18</u>		=Total Cover																		
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____		=Total Cover																		
<b>Hydrophytic Vegetation Present?</b> Yes <u>_____</u> No <u>X</u>																				

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

## SOIL

Sampling Point: 7A-W Upl (PFO)

[illegible]





**Upland 7A-W (PFO community) - View facing south.**



**Upland 7A-W (PFO community) - Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 1/31/23  
Applicant/Owner: TDI State: NY Sampling Point: FA-AP, AD, AN Wet  
Investigator(s): N. Frazer & J. Greaves Section, Township, Range: \_\_\_\_\_  
Landform (hillside, terrace, etc.): depression/ponded Local relief (concave, convex, none): concave Slope %: 0  
Subregion (LRR or MLRA): LRR R Lat: 42-14-35.07N Long: 73-51-33.73W Datum: WGS84  
Soil Map Unit Name: Nassau channery silt loam (NrD) NWI classification: PEM  
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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>near flag 7A-X-10</u>
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Remarks: (Explain alternative procedures here or in a separate report.)  
Shallow emergent marsh.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators</u> (minimum of one is required; check all that apply) <u>X</u> Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) <u>X</u> Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators</u> (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) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <u>x</u> No _____ Depth (inches): <u>5</u> Water Table Present? Yes _____ No <u>x</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>x</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
ponded

**VEGETATION** – Use scientific names of plants.

 Sampling Point: FA-AP, AO, AN Wet

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>40</u></td> <td>x 1 = <u>40</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>60</u> (A)</td> <td><u>80</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.33</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>40</u>	x 1 = <u>40</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>60</u> (A)	<u>80</u> (B)	Prevalence Index = B/A = <u>1.33</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>40</u>	x 1 = <u>40</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>60</u> (A)	<u>80</u> (B)																			
Prevalence Index = B/A = <u>1.33</u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		=Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>Cornus amomum</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		=Total Cover																		
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u>Carex stricta</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Lythrum salicaria</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>																	
3. <u>Onoclea sensibilis</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
		=Total Cover																		
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		=Total Cover																		

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

## SOIL

Sampling Point: FA-AP, AO, AN Wet

[illegible]





**Wetland FA-AP, AO, AN (7A-X-10) - View facing southwest.**



**Wetland FA-AP, AO, AN (7A-X-10) - Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 1/31/23  
Applicant/Owner: TDI State: NY Sampling Point: FA/AP, AD, AN Upland  
Investigator(s): N. Frazer & J. Greaves Section, Township, Range: \_\_\_\_\_  
Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope %: 3  
Subregion (LRR or MLRA): LRR R Lat: 42-14-34.95N Long: 73-51-33.54W Datum: WGS84  
Soil Map Unit Name: Nassau channery silt loam (NrD) NWI classification: n/a  
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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>near flag 7A-X-10</u>
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Remarks: (Explain alternative procedures here or in a separate report.)  
forested upland

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ____ Surface Water (A1)      ____ Water-Stained Leaves (B9) ____ High Water Table (A2)      ____ Aquatic Fauna (B13) ____ Saturation (A3)      ____ Marl Deposits (B15) ____ Water Marks (B1)      ____ Hydrogen Sulfide Odor (C1) ____ Sediment Deposits (B2)      ____ Oxidized Rhizospheres on Living Roots (C3) ____ Drift Deposits (B3)      ____ Presence of Reduced Iron (C4) ____ Algal Mat or Crust (B4)      ____ Recent Iron Reduction in Tilled Soils (C6) ____ Iron Deposits (B5)      ____ Thin Muck Surface (C7) ____ Inundation Visible on Aerial Imagery (B7)      ____ Other (Explain in Remarks) ____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ____ 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)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>x</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>x</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>x</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** – Use scientific names of plants.

 Sampling Point: FA-AP, AO, AN Upland

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus rubra</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>108</u></td> <td>x 4 = <u>432</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>108</u> (A)</td> <td><u>432</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>108</u>	x 4 = <u>432</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>108</u> (A)	<u>432</u> (B)	Prevalence Index = B/A = <u>4.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>108</u>	x 4 = <u>432</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>108</u> (A)	<u>432</u> (B)																			
Prevalence Index = B/A = <u>4.00</u>																				
2. <u>Ostrya virginiana</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>60</u> =Total Cover																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u>Pinus strobus</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Fagus grandifolia</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Rubus allegheniensis</u>	<u>2</u>	<u>No</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>32</u> =Total Cover																				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u>Fagus grandifolia</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>X</u>																
2. <u>Juniperus virginiana</u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>16</u> =Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ =Total Cover																				

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

## SOIL

**Sampling Point:** FA-AP, AO, AN Upland

[illegible]





**Upland FA-AO, AP, AN (7A-X-10) - View facing east.**



**Upland FA-AO, AP, AN (7A-X-10) - Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: November 17, 2021  
 Applicant/Owner: CHA State: NY Sampling Point: Wet FA-AP, AO, AN  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.242503°N Long: -73.859980°W Datum: NAD83  
 Soil Map Unit Name: NrD- Nassau channery silt loam, hilly, very rocky NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>AP</u>
Remarks: (Explain alternative procedures here or in a separate report.) PSS Wetland located within a depression adjacent to access road and railroad bed			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): 5 Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): 2 (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-AP

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>35</u></td> <td>x 1 = <u>35</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>195</u> (B)</td> </tr> </table> Prevalence Index = B/A = 1.77	Total % Cover of:	Multiply by:	OBL species <u>35</u>	x 1 = <u>35</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>195</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>35</u>	x 1 = <u>35</u>																	
FACW species <u>70</u>	x 2 = <u>140</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>5</u>	x 4 = <u>20</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>110</u> (A)	<u>195</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Cornus amomum</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Cornus alba</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>45</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Phalaris arundinacea</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Lythrum salicaria</u>	<u>35</u>	<u>Yes</u>	<u>OBL</u>															
3. <u>Alliaria petiolata</u>	<u>5</u>	<u>No</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>65</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)  <div style="height: 100px; border: 1px solid black;"></div>																		

## SOIL

Sampling Point: DP-AP

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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) (**LRR R, MLRA 149B**)

- ☐ Polyvalue Below Surface (S8) (**LRR R**, **MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R**, **MLRA 149B**)
- ☐ 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)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:





Wetland FA-AP, AO, AN - View facing north.



Wetland FA-AP, AO, AN - Soils

**Segment 11 - Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: November 17, 2021  
 Applicant/Owner: CHA State: NY Sampling Point: Upl FA-AP, AO, AN  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.242736°N Long: -73.859879°W Datum: NAD83  
 Soil Map Unit Name: NrD- Nassau channery silt loam, hilly, very rocky NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	
If yes, optional Wetland Site ID: <u>      </u>		
Remarks: (Explain alternative procedures here or in a separate report.) Upland data point for the AP portion of Wetland FA-AP, AO, AN, located at the bottom of a hillslope adjacent to an access road.		

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at data point		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-AP-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>130</u></td> <td>x 4 = <u>520</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>130</u> (A)</td> <td><u>520</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>130</u>	x 4 = <u>520</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>130</u> (A)	<u>520</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>130</u>	x 4 = <u>520</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>130</u> (A)	<u>520</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Lonicera morrowii</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>30</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Solidago canadensis</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Dactylis glomerata</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>X</u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at data point																		

## SOIL

Sampling Point: DP-AP-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 10

Hydric Soil Present? Yes No **X**

Remarks:

Remarks:  
No hydric soils present at data point, could not dig past 10 inches due to bedrock.





**Upland FA-AP, AO, AN - View facing North.**



**Upland FA-AP, AO, AN - Soils.**

**Segment 11 - Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: November 17, 2021  
 Applicant/Owner: CHA State: NY Sampling Point: Wet FA-AP, AO, AN  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.241708°N Long: -73.860231°W Datum: NAD83  
 Soil Map Unit Name: NrD- Nassau channery silt loam, hilly, very rocky NWI classification: Not Mapped  
 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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>AO</u>
Remarks: (Explain alternative procedures here or in a separate report.) PSS Wetland located within a depression adjacent to access road and railroad bed			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): 10 Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): 8 (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-AO

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>110</u></td> <td>x 2 = <u>220</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>25</u></td> <td>x 4 = <u>100</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>150</u> (A)</td> <td><u>335</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.23	Total % Cover of:	Multiply by:	OBL species <u>15</u>	x 1 = <u>15</u>	FACW species <u>110</u>	x 2 = <u>220</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>25</u>	x 4 = <u>100</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>150</u> (A)	<u>335</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>15</u>	x 1 = <u>15</u>																	
FACW species <u>110</u>	x 2 = <u>220</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>25</u>	x 4 = <u>100</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>150</u> (A)	<u>335</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Cornus amomum</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Cornus alba</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>															
3. <u>Salix discolor</u>	<u>5</u>	<u>No</u>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>50</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Phalaris arundinacea</u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Solidago canadensis</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>															
3. <u>Lythrum salicaria</u>	<u>15</u>	<u>No</u>	<u>OBL</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

## SOIL

Sampling Point: DP-AO

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input checked="" type="checkbox"/> <b>X</b> Redox Dark Surface (F6)       |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:





**Wetland FA-AP, AO, AN - View facing North.**



**Wetland FA-AP, AO, AN - Soils.**

**Segment 11 - Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: November 17, 2021  
 Applicant/Owner: CHA State: NY Sampling Point: Upl FA-AP, AO, AN  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.241932°N Long: -73.860157°W Datum: NAD83  
 Soil Map Unit Name: NrD - Nassau channery silt loam, hilly, very rocky NWI classification: Not Mapped  
 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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	
If yes, optional Wetland Site ID: <u>      </u>		
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland AO, located on access road, adjacent to scrub shrub area		

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at data point		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-AO-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>90</u> x 4 = <u>360</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>390</u> (B)  Prevalence Index = B/A = 3.9
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Solidago canadensis</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Lolium perenne</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Plantago lanceolata</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4. <u>Galium boreale</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at data point				<b>Hydrophytic Vegetation Present?</b> <div style="display: flex; align-items: center; gap: 20px;"> <span>Yes</span> <span>No</span> <span><u>X</u></span> </div>

## Upland

Upland

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

- ☐ 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) (**LRR R, MLRA 149B**)

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<b>Restrictive Layer (if observed):</b> Type: <u>Bedrock</u> Depth (inches): 8	Hydric Soil Present? Yes <u>      </u> No <u>X</u>
--	--

Remarks:  
No hydric soils present at data point



No Photo

**Upland AO- View facing -**



**Wetland FA-AP, AO, AN - Soils.**

**Segment 11 - Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: November 17, 2021  
 Applicant/Owner: CHA State: NY Sampling Point: Wet FA-AP, AO, AN  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.239346°N Long: -73.861478°W Datum: NAD83  
 Soil Map Unit Name: Co - Covington and Madalin soils NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>AN</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.) Large PEM Wetland located within a depression, adjacent to railroad bed and access road, large Phragmites stand		

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>X</u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>      </u> Depth (inches): 5 Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): 3 Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-AN

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>105</u> (A)</td> <td><u>195</u> (B)</td> </tr> </table> Prevalence Index = B/A = 1.85	Total % Cover of:	Multiply by:	OBL species <u>15</u>	x 1 = <u>15</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>105</u> (A)	<u>195</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>15</u>	x 1 = <u>15</u>																	
FACW species <u>90</u>	x 2 = <u>180</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>105</u> (A)	<u>195</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Phragmites australis</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Typha latifolia</u>	<u>15</u>	<u>No</u>	<u>OBL</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>105</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														

## SOIL

Sampling Point: DP-AN

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,
<input type="checkbox"/> Histic Epipedon (A2)	<b>MLRA 149B)</b>
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b>
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> <b>X</b> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b>	

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:





Wetland FA-AP, AO, AN - View facing North.



Wetland FA-AP, AO, AN - Soils.

**Segment 11 - Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: November 17, 2021  
 Applicant/Owner: CHA State: NY Sampling Point: Upl FA-AP, AO, AN  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Convex Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.239384°N Long: -73.861389°W Datum: NAD83  
 Soil Map Unit Name: Co - Covington and Madalin soils NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	
If yes, optional Wetland Site ID: <u>      </u>		
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland AN located adjacent to access road, within slight hillslope		

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
Field Observations:		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at data point		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-AN-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Solidago canadensis</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Rubus idaeus</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>															
3. <u>Plantago lanceolata</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
4. <u>Lonicera morrowii</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> <table style="width: 100%;"> <tr> <td style="width: 33%;">Yes</td> <td style="width: 33%; text-align: center;"><u>    </u> No</td> <td style="width: 33%; text-align: center;"><u>X</u></td> </tr> </table>	Yes	<u>    </u> No	<u>X</u>											
Yes	<u>    </u> No	<u>X</u>																

## Upland

Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,
<input type="checkbox"/> Histic Epipedon (A2)	<b>MLRA 149B)</b>
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b>
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b>	

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present? Yes No **X**

Remarks:

Remarks:  
No hydric soils present at data point





**Upland FA-AP, AO, AN - View facing North.**



**Upland FA-AP, AO, AN - Soils.**

**Segment 11 - Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 1/31/23  
Applicant/Owner: TDI State: NY Sampling Point: FA-AP, AO, AN Wet  
Investigator(s): N. Frazer & J. Greaves Section, Township, Range: \_\_\_\_\_  
Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave Slope %: 0  
Subregion (LRR or MLRA): LRR R Lat: 42-14-19.04N Long: 73-51-41.08W Datum: WGS84  
Soil Map Unit Name: Covington and Madalin Soils (Co) NWI classification: PFO  
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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>near flag 21B</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)  
Wetland FA-AP, AO, AN. Red maple hardwood swamp.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators</u> (minimum of one is required; check all that apply) <u>X</u> Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) <u>X</u> High Water Table (A2) <u>    </u> Aquatic Fauna (B13) <u>X</u> Saturation (A3) <u>    </u> Marl Deposits (B15) <u>    </u> Water Marks (B1) <u>    </u> Hydrogen Sulfide Odor (C1) <u>    </u> Sediment Deposits (B2) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) <u>    </u> Drift Deposits (B3) <u>    </u> Presence of Reduced Iron (C4) <u>    </u> Algal Mat or Crust (B4) <u>    </u> Recent Iron Reduction in Tilled Soils (C6) <u>    </u> Iron Deposits (B5) <u>    </u> Thin Muck Surface (C7) <u>    </u> Inundation Visible on Aerial Imagery (B7) <u>    </u> Other (Explain in Remarks) <u>    </u> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators</u> (minimum of two required) <u>    </u> Surface Soil Cracks (B6) <u>    </u> Drainage Patterns (B10) <u>    </u> Moss Trim Lines (B16) <u>    </u> Dry-Season Water Table (C2) <u>    </u> Crayfish Burrows (C8) <u>    </u> Saturation Visible on Aerial Imagery (C9) <u>    </u> Stunted or Stressed Plants (D1) <u>X</u> Geomorphic Position (D2) <u>    </u> Shallow Aquitard (D3) <u>    </u> Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>x</u> No _____ Depth (inches): <u>2</u> Water Table Present? Yes <u>x</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>x</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

 Sampling Point: FA-AP, AO, AN Wet

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus bicolor</u>	<u>55</u>	<u>Yes</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>55</u></td> <td>x 1 = <u>55</u></td> </tr> <tr> <td>FACW species <u>150</u></td> <td>x 2 = <u>300</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>205</u> (A)</td> <td><u>355</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.73</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>55</u>	x 1 = <u>55</u>	FACW species <u>150</u>	x 2 = <u>300</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>205</u> (A)	<u>355</u> (B)	Prevalence Index = B/A = <u>1.73</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>55</u>	x 1 = <u>55</u>																			
FACW species <u>150</u>	x 2 = <u>300</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>205</u> (A)	<u>355</u> (B)																			
Prevalence Index = B/A = <u>1.73</u>																				
2. <u>Fraxinus pennsylvanica</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>80</u> =Total Cover																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u>Cornus amomum</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Quercus bicolor</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
3. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>40</u> =Total Cover																				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u>Alisma triviale</u>	<u>15</u>	<u>No</u>	<u>OBL</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																
2. <u>Onoclea sensibilis</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Carex stricta</u>	<u>40</u>	<u>Yes</u>	<u>OBL</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>85</u> =Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ =Total Cover																				

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

## SOIL

Sampling Point: FA-AP, AO, AN Wet

[illegible]





**Wetland FA-AO, AP, AN (21B) - View facing north.**



**Wetland FA-AO, AP, AN (21B) - Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 1/31/23  
Applicant/Owner: TDI State: NY Sampling Point: FA-AO, AP, AN Upl  
Investigator(s): N. Frazer & J. Greaves Section, Township, Range: \_\_\_\_\_  
Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none Slope %: 0  
Subregion (LRR or MLRA): LRR R Lat: 42-14-18.86N Long: 73-51-41.08W Datum: WGS84  
Soil Map Unit Name: Covington and Madalin Soils (Co) NWI classification: n/a  
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 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 <u>X</u> Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>near flag 21B</u>
--	--

Remarks: (Explain alternative procedures here or in a separate report.)  
Upland FA-AO, AP, AN. Disturbed fill area.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators</u> (minimum of one is required; check all that apply) ____ Surface Water (A1)      ____ Water-Stained Leaves (B9) ____ High Water Table (A2)      ____ Aquatic Fauna (B13) ____ Saturation (A3)      ____ Marl Deposits (B15) ____ Water Marks (B1)      ____ Hydrogen Sulfide Odor (C1) ____ Sediment Deposits (B2)      ____ Oxidized Rhizospheres on Living Roots (C3) ____ Drift Deposits (B3)      ____ Presence of Reduced Iron (C4) ____ Algal Mat or Crust (B4)      ____ Recent Iron Reduction in Tilled Soils (C6) ____ Iron Deposits (B5)      ____ Thin Muck Surface (C7) ____ Inundation Visible on Aerial Imagery (B7)      ____ Other (Explain in Remarks) ____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators</u> (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)
---	--

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>x</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>x</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>x</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
--	---

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

Remarks:

**VEGETATION** – Use scientific names of plants.

 Sampling Point: FA-AO, AP, AN Upl

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>60</u></td> <td>x 5 = <u>300</u></td> </tr> <tr> <td>Column Totals: <u>85</u> (A)</td> <td><u>390</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.59</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>60</u>	x 5 = <u>300</u>	Column Totals: <u>85</u> (A)	<u>390</u> (B)	Prevalence Index = B/A = <u>4.59</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>15</u>	x 4 = <u>60</u>																			
UPL species <u>60</u>	x 5 = <u>300</u>																			
Column Totals: <u>85</u> (A)	<u>390</u> (B)																			
Prevalence Index = B/A = <u>4.59</u>																				
=Total Cover																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
=Total Cover																				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u>Artemisia vulgaris</u>	<u>60</u>	<u>Yes</u>	<u>UPL</u>																	
2. <u>Setaria pumila</u>	<u>10</u>	<u>No</u>	<u>FAC</u>																	
3. <u>Solidago canadensis</u>	<u>15</u>	<u>No</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
85 =Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
=Total Cover																				
<b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>X</u>																				

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



## SOIL

Sampling Point: FA-AO, AP, AN Upl

[illegible]



**Upland FA-AO, AP, AN (21B Upl) - View facing south.**



**Upland FA-AO, AP, AN (21B Upl) - Soils**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 9, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-AC  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.235877°N Long: 73.862909°W Datum: NAD83  
 Soil Map Unit Name: Co - Covington and Madalin soils NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>AC</u>
Remarks: (Explain alternative procedures here or in a separate report.) PFO Wetland located within forested area adjacent to the railroad bed.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
Field Observations:		Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>
Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>1</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>1</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-AC

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Fraxinus pennsylvanica</u>	30	Yes	FACW	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>30</u> = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>165</u> (A)</td> <td><u>365</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.21	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>35</u>	x 3 = <u>105</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>165</u> (A)	<u>365</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>20</u>	x 1 = <u>20</u>																	
FACW species <u>100</u>	x 2 = <u>200</u>																	
FAC species <u>35</u>	x 3 = <u>105</u>																	
FACU species <u>10</u>	x 4 = <u>40</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>165</u> (A)	<u>365</u> (B)																	
1. <u>Frangula alnus</u>	25	Yes	FAC															
2. <u>Cornus racemosa</u>	10	Yes	FAC															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>35</u> = Total Cover																		
<b>Herb Stratum (Plot size: 5 ft.)</b>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Onoclea sensibilis</u>	30	Yes	FACW															
2. <u>Impatiens capensis</u>	40	Yes	FACW															
3. <u>Carex flava</u>	20	Yes	OBL															
4. <u>Parthenocissus quinquefolia</u>	10	No	FACU															
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>100</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>														

## SOIL

Sampling Point: DP-AC

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> <b>MLRA 149B)</b>                                 |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)             |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.





**PFO Wetland AC- View facing North.**



**PFO Wetland AC- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 9, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-AC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.235862°N Long: 73.863073°W Datum: NAD83  
 Soil Map Unit Name: - Covington and Madalin soils NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland AC located on top of slight bank adjacent to a forested area.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		



**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-AC-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
	<u>0</u>	= Total Cover			
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>					
1. <u>Rhus typhina</u>	<u>10</u>	<u>Yes</u>	<u>UPL</u>		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
	<u>10</u>	= Total Cover			
<b>Herb Stratum (Plot size: 5 ft.)</b>					
1. <u>Ambrosia artemisiifolia</u>	<u>90</u>	<u>Yes</u>	<u>FACU</u>		
2. <u>Solidago canadensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
	<u>100</u>	= Total Cover			
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
	<u>0</u>	= Total Cover			
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.					

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)  
  
 Total Number of Dominant Species Across All Strata: 2 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>100</u>	x 4 = <u>400</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>110</u> (A)	<u>450</u> (B)

Prevalence Index = B/A = 4.09

**Hydrophytic Vegetation Indicators:**  
     1 - Rapid Test for Hydrophytic Vegetation  
     2 - Dominance Test is >50%  
     3 - Prevalence Index is ≤3.0<sup>1</sup>  
     4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
  
     Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>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.

<b>Hydrophytic Vegetation Present?</b>	Yes	No	<u>X</u>
--	-----	----	----------

Upland

Sampling Point: DP-AC-

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

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

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 4

Hydric Soil Present? Yes No **X**

## Remarks:

Could not dig past 4 inches due to compaction, no hydric soils present at the Data Point. Dark soils due to area being adjacent to railroad bed.



**Upland AC- View facing North.**



**Upland AC Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 9, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-BC  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.229838°N Long: 73.865452°W Datum: NAD83  
 Soil Map Unit Name: - Covington and Madalin NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>BC</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located within a depression adjacent to railroad and forested area.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): 4 Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): 2 (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-BC

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Juniperus virginiana</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>10</u> = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																		
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>105</u></td> <td>x 2 = <u>210</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>250</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.17	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>105</u>	x 2 = <u>210</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>115</u> (A)	<u>250</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>105</u>	x 2 = <u>210</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>10</u>	x 4 = <u>40</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>115</u> (A)	<u>250</u> (B)																	
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
<b>Herb Stratum (Plot size: 5 ft.)</b>																		
1. <u>Phragmites australis</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Onoclea sensibilis</u>	<u>20</u>	<u>No</u>	<u>FACW</u>															
3. <u>Impatiens capensis</u>	<u>5</u>	<u>No</u>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>105</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> Present?      Yes <u>X</u> No      _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-BC

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input checked="" type="checkbox"/> <b>X</b> Redox Dark Surface (F6)       |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.





**PEM Wetland BC- View facing North.**



**PEM Wetland BC- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 9, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-BC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.229843°N Long: 73.865520°W Datum: NAD83  
 Soil Map Unit Name: - Covington and Madalin soils NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland BC located on top of slight bank slope adjacent to railroad.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-BC-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status																
1. <u>Rhus typhina</u>	20	Yes	UPL	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)															
2. _____																			
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
	20	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>65</u></td> <td>x 4 = <u>260</u></td> </tr> <tr> <td>UPL species <u>20</u></td> <td>x 5 = <u>100</u></td> </tr> <tr> <td>Column Totals: <u>85</u> (A)</td> <td><u>360</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.23		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>65</u>	x 4 = <u>260</u>	UPL species <u>20</u>	x 5 = <u>100</u>	Column Totals: <u>85</u> (A)	<u>360</u> (B)
Total % Cover of:	Multiply by:																		
OBL species <u>0</u>	x 1 = <u>0</u>																		
FACW species <u>0</u>	x 2 = <u>0</u>																		
FAC species <u>0</u>	x 3 = <u>0</u>																		
FACU species <u>65</u>	x 4 = <u>260</u>																		
UPL species <u>20</u>	x 5 = <u>100</u>																		
Column Totals: <u>85</u> (A)	<u>360</u> (B)																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																			
1. _____																			
2. _____																			
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
	0	= Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
<b>Herb Stratum (Plot size: 5 ft.)</b>																			
1. <u>Ambrosia artemisiifolia</u>	45	Yes	FACU																
2. <u>Solidago canadensis</u>	20	Yes	FACU																
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
8. _____																			
9. _____																			
10. _____																			
11. _____																			
12. _____																			
	65	= Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.															
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																			
1. _____																			
2. _____																			
3. _____																			
4. _____																			
	0	= Total Cover		<b>Hydrophytic Vegetation Present?</b> <div style="display: flex; justify-content: space-around; align-items: center;"> <span>Yes</span> <span>No</span> <span><u>X</u></span> </div>															
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																			

## Upland

Upland

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

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

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<b>Restrictive Layer (if observed):</b> Type: <u>Compaction</u> Depth (inches): 7	Hydric Soil Present? Yes <u>      </u> No <u>X</u>
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**Upland BC- View facing North.**



**Upland BC Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 25, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GN  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Convex Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.229173°N Long: 73.866607°W Datum: NAD83  
 Soil Map Unit Name: Ug- Udorthents, loamy NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>GN</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located along a drainageway on a slight hillslope under bridge.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GN

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>190</u> (B)</td> </tr> </table> Prevalence Index = B/A = 1.9	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>190</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>10</u>	x 1 = <u>10</u>																	
FACW species <u>90</u>	x 2 = <u>180</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>190</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Phragmites australis</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Lythrum salicaria</u>	<u>10</u>	<u>No</u>	<u>OBL</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														

## SOIL

Sampling Point: DP-GN

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>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) (**LRR R, MLRA 149B**)

- ☐ Polyvalue Below Surface (S8) (**LRR R**, **MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R**, **MLRA 149B**)
- ☐ 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)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 8

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point, could not dig past 8 inches due to bedrock.





**PEM Wetland GN- View facing South.**



**PEM Wetland GN- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

Project/Site:	<u>Champlain Hudson Express</u>	City/County:	<u>Greene</u>	Sampling Date:	<u>August 25, 2022</u>
Applicant/Owner:	<u>CHA</u>	State:	<u>NY</u>	Sampling Point:	<u>DP-GN-Upland</u>
Investigator(s):	<u>Tristen Peterson</u>	Section, Township, Range:	<u>Catskill</u>		
Landform (hillslope, terrace, etc.):	<u>Terrace</u>	Local relief (concave, convex, none):	<u>Convex</u>	Slope (%):	<u>1</u>
Subregion (LRR or MLRA):	<u>LRR R</u>	Lat: <u>42.229132°N</u>	Long: <u>73.866573°W</u>	Datum: <u>NAD83</u>	
Soil Map Unit Name:	<u>NrE- Nassau channery silt loam, steep, very rocky</u>			NWI classification:	<u>Not Mapped</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes			<u>X</u>	No	<u>      </u> (If no, explain in Remarks.)
Are Vegetation	<u>      </u> , Soil	<u>      </u> , or Hydrology	<u>      </u> significantly disturbed?	Are "Normal Circumstances" present?	Yes <u>X</u> No <u>      </u>
Are Vegetation			<u>      </u> , Soil	<u>      </u> , or Hydrology	<u>      </u> naturally problematic?
(If needed, explain any answers in Remarks.)					

Hydrophytic Vegetation Present?	Yes	_____	No	_____	<b>X</b>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <b>_____X</b> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes	_____	No	_____	<b>X</b>	
Wetland Hydrology Present?	Yes	_____	No	_____	<b>X</b>	
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland GN located within an abandoned access road.						

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)				
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)		
		<input type="checkbox"/> FAC-Neutral Test (D5)		
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				
Remarks: No wetland hydrology present at the Data Point.				

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GN-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>40</u> (A)</td> <td><u>150</u> (B)</td> </tr> </table> Prevalence Index = B/A = 3.75	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>40</u> (A)	<u>150</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>30</u>	x 4 = <u>120</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>40</u> (A)	<u>150</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Populus deltoides</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>															
2. <u>Solidago canadensis</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>40</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> <table style="width: 100%;"> <tr> <td style="width: 33%;">Yes</td> <td style="width: 33%; text-align: center;">_____ No</td> <td style="width: 33%; text-align: center;">_____ <u>X</u></td> </tr> </table>	Yes	_____ No	_____ <u>X</u>											
Yes	_____ No	_____ <u>X</u>																

## Upland

Upland

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,
<input type="checkbox"/> Histic Epipedon (A2)	<b>MLRA 149B)</b>
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b>
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b>	

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<b>Restrictive Layer (if observed):</b> Type: <u>Compaction</u> Depth (inches): 3	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:  
No hydric soil present at the Data Point.





**Upland GN- View facing South.**



**Upland GN Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 9, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-M-1  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.228428°N Long: 73.867070°W Datum: NAD83  
 Soil Map Unit Name: - Nassau channery silt loam, rolling NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>M-1</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located within a depression at the bottom of a hillslope.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>1</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>1</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		



**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-M-1

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>45</u></td> <td>x 2 = <u>90</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>45</u> (A)</td> <td><u>90</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>45</u>	x 2 = <u>90</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>45</u> (A)	<u>90</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>45</u>	x 2 = <u>90</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>45</u> (A)	<u>90</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>   </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>   </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>   </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Symplocarpus</u>	<u>60</u>	<u>Yes</u>	_____															
2. <u>Impatiens capensis</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>															
3. <u>Onoclea sensibilis</u>	<u>15</u>	<u>No</u>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>105</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-M-1

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 8

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point, could not dig past 8 inches due to bedrock.



**PEM Wetland M1- View facing North.**



**PEM Wetland M1- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 9, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-M-1-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 4  
 Subregion (LRR or MLRA): LRR R Lat: 42.228280°N Long: 73.866936°W Datum: NAD83  
 Soil Map Unit Name: - Nassau channery silt loam, steep, very rocky NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	
If yes, optional Wetland Site ID: <u>      </u>		
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point located on a slight hillslope within a forested area.		

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-M-1-Upland

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status																
1. <u>Fagus grandifolia</u>	20	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)															
2. <u>Quercus rubra</u>	40	Yes	FACU																
3. <u>Acer saccharum</u>	15	Yes	FACU																
4. _____																			
5. _____																			
6. _____																			
7. _____																			
<u>75</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>85</u></td> <td>x 4 = <u>340</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>85</u> (A)</td> <td><u>340</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>85</u>	x 4 = <u>340</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>85</u> (A)	<u>340</u> (B)
Total % Cover of:	Multiply by:																		
OBL species <u>0</u>	x 1 = <u>0</u>																		
FACW species <u>0</u>	x 2 = <u>0</u>																		
FAC species <u>0</u>	x 3 = <u>0</u>																		
FACU species <u>85</u>	x 4 = <u>340</u>																		
UPL species <u>0</u>	x 5 = <u>0</u>																		
Column Totals: <u>85</u> (A)	<u>340</u> (B)																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
1. _____																			
2. _____																			
3. _____																			
4. _____																			
5. _____																			
6. _____																			
<u>0</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.															
Herb Stratum (Plot size: 5 ft.)																			
1. <u>Fragaria virginiana</u>	10	Yes	FACU																
2. _____																			
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____				<b>Hydrophytic Vegetation</b> Present?      Yes <u>      </u> No <u>  X  </u>															
8. _____																			
9. _____																			
10. _____																			
11. _____																			
12. _____																			
<u>10</u> = Total Cover																			
Woody Vine Stratum (Plot size: 30 ft.)																			
1. _____																			
2. _____																			
3. _____																			
4. _____																			
<u>0</u> = Total Cover																			
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																			

## |Upland

Sampling Point: DP-M-1-

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          |   |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> )       |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Depleted Dark Surface (F7)                               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present? Yes No **X**

Remarks:

No hydric soils present at the Data Point.





**Upland M1- View facing North.**



**Upland M1 Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 25, 2022

Applicant/Owner: CHA State: NY Sampling Point: DP-GQ

Investigator(s): Tristen Peterson Section, Township, Range: Catskill

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR R Lat: 42.228461°N Long: 73.865493°W Datum: NAD83

Soil Map Unit Name: NrD - Nassau channery silt loam, hilly, very rocky NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>GQ</u>

Remarks: (Explain alternative procedures here or in a separate report.)  
PFO Wetland located in a depression at the bottom of a steep hillslope.

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>X</u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): 10 (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
---	---

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

Remarks:  
Wetland hydrology present at the Data Point.

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GQ

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Quercus palustris</u>	10	Yes	FACW	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. <u>Fraxinus pennsylvanica</u>	30	Yes	FACW															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>40</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>35</u></td> <td>x 1 = <u>35</u></td> </tr> <tr> <td>FACW species <u>65</u></td> <td>x 2 = <u>130</u></td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>145</u> (A)</td> <td><u>310</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.13	Total % Cover of:	Multiply by:	OBL species <u>35</u>	x 1 = <u>35</u>	FACW species <u>65</u>	x 2 = <u>130</u>	FAC species <u>35</u>	x 3 = <u>105</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>145</u> (A)	<u>310</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>35</u>	x 1 = <u>35</u>																	
FACW species <u>65</u>	x 2 = <u>130</u>																	
FAC species <u>35</u>	x 3 = <u>105</u>																	
FACU species <u>10</u>	x 4 = <u>40</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>145</u> (A)	<u>310</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Frangula alnus</u>	35	Yes	FAC															
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>35</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Symplocarpus foetidus</u>	35	Yes	OBL															
2. <u>Parthenocissus quinquefolia</u>	10	No	FACU															
3. <u>Fraxinus pennsylvanica</u>	25	Yes	FACW															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>70</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>														

## SOIL

Sampling Point: DP-GQ

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>MLRA 149B</b>   |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> )       |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
----------------------	-----	---	----

Remarks:

Hydric soils present at the Data Point.





**PFO Wetland GQ- View facing South.**



**PFO Wetland GQ- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 25, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GQ-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 4  
 Subregion (LRR or MLRA): LRR R Lat: 42.228621°N Long: 73.865467°W Datum: NAD83  
 Soil Map Unit Name: NrD- Nassau channery silt loam, hilly, very rocky NWI classification: Not Mapped

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 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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for PFO Wetland GQ located along a steep hillslope adjacent to access road.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		



**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GQ-Upland

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status																
1. <u>Robinia pseudoacacia</u>	25	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)															
2. _____																			
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
	25	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>95</u></td> <td>x 4 = <u>380</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>380</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>95</u>	x 4 = <u>380</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>95</u> (A)	<u>380</u> (B)
Total % Cover of:	Multiply by:																		
OBL species <u>0</u>	x 1 = <u>0</u>																		
FACW species <u>0</u>	x 2 = <u>0</u>																		
FAC species <u>0</u>	x 3 = <u>0</u>																		
FACU species <u>95</u>	x 4 = <u>380</u>																		
UPL species <u>0</u>	x 5 = <u>0</u>																		
Column Totals: <u>95</u> (A)	<u>380</u> (B)																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																			
1. _____																			
2. _____																			
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
	0	= Total Cover		<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
<b>Herb Stratum (Plot size: 5 ft.)</b>																			
1. <u>Ambrosia artemisiifolia</u>	40	Yes	FACU																
2. <u>Parthenocissus quinquefolia</u>	15	Yes	FACU																
3. <u>Solidago canadensis</u>	15	Yes	FACU																
4. _____																			
5. _____																			
6. _____																			
7. _____																			
8. _____																			
9. _____																			
10. _____																			
11. _____																			
12. _____																			
	70	= Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.															
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																			
1. _____																			
2. _____																			
3. _____																			
4. _____																			
	0	= Total Cover		<b>Hydrophytic Vegetation Present?</b> <div style="display: flex; justify-content: space-around; align-items: center;"> <span>Yes</span> <span>_____ No</span> <span><u>X</u></span> </div>															
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																			

## |Upland

Sampling Point: DP-GQ-

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,
<input type="checkbox"/> Histic Epipedon (A2)	<b>MLRA 149B)</b>
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b>
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L)</b>
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b>	

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 6

Hydric Soil Present? Yes No **X**

Remarks:  
Could not dig past 6 inches due to compaction, no hydric soils present at the Data Point.



**Upland GQ- View facing South.**



**Upland GQ Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE- Package 7A - Harbour Freight - MP 222.0 City/County: Catskill/ Greene Sampling Date: 5/24/2022  
 Applicant/Owner: CHPE State: NY Sampling Point: G7A- Wet  
 Investigator(s): K. Weiskotten, K. Schumacher Section, Township, Range: Town of Catskill  
 Landform (hillside, terrace, etc.): Lake Plains Local relief (concave, convex, none): Concave Slope %: 5  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42°,13',00.80"N Long: 73°,52',44.91"N Datum:   
 Soil Map Unit Name: Hudson and Vergennes NWI classification: PFO  
 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 <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u></u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: G7A- Wet

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus pennsylvanica</u>	15	Yes	FACW	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>70.0%</u> (A/B)																
2. <u>Acer rubrum</u>	15	Yes	FAC																	
3. <u>Ulmus americana</u>	20	Yes	FACW																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		50	=Total Cover	<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>																				
1. <u>Hamamelis virginiana</u>	5	Yes	FACU																	
2. <u>Cornus amomum</u>	5	Yes	FACW																	
3. <u>Acer rubrum</u>	10	Yes	FAC																	
4. <u>Viburnum dentatum</u>	5	Yes	FAC																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>  <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
		25	=Total Cover																	
<b>Herb Stratum (Plot size: _____)</b>																				
1. <u>Onoclea sensibilis</u>	10	No	FACW																	
2. <u>Amauropelta noveboracensis</u>	5	No	FACU																	
3. <u>Equisetum arvense</u>	5	No	FAC																	
4. <u>Alliaria petiolata</u>	15	Yes	FACU																	
5. <u>Geranium maculatum</u>	5	No	FACU																	
6. <u>Impatiens capensis</u>	15	Yes	FACW																	
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
		55	=Total Cover																	
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. <u>Parthenocissus quinquefolia</u>	5	Yes	FACU	<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		5	=Total Cover																	

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

## SOIL

Sampling Point: G7A- Wet

[illegible]





**Wetland G-P7A-A**



**Wetland G-P7A-A - Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE- Package 7A - Harbour Freight - MP 222.0 City/County: Catskill/ Greene Sampling Date: 5/24/2022  
 Applicant/Owner: CHPE State: NY Sampling Point: G7A-Up  
 Investigator(s): K. Weiskotten, K. Schumacher Section, Township, Range: Town of Catskill  
 Landform (hillside, terrace, etc.): Lake Plains Local relief (concave, convex, none): Concave Slope %: 5  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42°,13',00.80"N Long: 73°,52',44.91"N Datum:   
 Soil Map Unit Name: Hudson and Vergennes 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 <u></u> No <u>X</u> Hydric Soil Present? Yes <u></u> No <u>X</u> Wetland Hydrology Present? Yes <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> If yes, optional Wetland Site ID: <u></u>
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) ___ High Water Table (A2) ___ Aquatic Fauna (B13) ___ Saturation (A3) ___ Marl Deposits (B15) ___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5) ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ 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)
<b>Field Observations:</b> Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u></u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

 Sampling Point: G7A-Up

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus pennsylvanica</u>	15	Yes	FACW	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20.0%</u> (A/B)
2. <u>Acer saccharum</u>	20	Yes	FACU	
3. <u>Ulmus americana</u>	5	No	FACW	
4. <u>Fagus grandifolia</u>	5	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
45 =Total Cover				
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. <u>Hamamelis virginiana</u>	10	Yes	FACU	<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Carpinus caroliniana</u>	10	Yes	FAC	
3. <u>Acer saccharum</u>	10	Yes	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
30 =Total Cover				
<b>Herb Stratum</b> (Plot size: _____)				
1. <u>Alliaria petiolata</u>	10	Yes	FACU	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Amauropelta noveboracensis</u>	5	Yes	FACU	
3. <u>Geranium maculatum</u>	5	Yes	FACU	
4. <u>Fragaria virginiana</u>	5	Yes	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
25 =Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. <u>Parthenocissus quinquefolia</u>	5	Yes	FACU	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5 =Total Cover				
<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>				

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

## SOIL

Sampling Point: G7A-Up

[illegible]





**Upland GP7A-A**



**Upland GP7A-A- Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE Phase 7 City/County: Catskill Sampling Date: 12/7/21  
Applicant/Owner: CHA State: NY Sampling Point: CC-1  
Investigator(s): Nick Dominic/Justin Williams Section, Township, Range: \_\_\_\_\_  
Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope %: \_\_\_\_\_  
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42.21167 Long: -73.8869 Datum: NAD83  
Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation No, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation N, Soil N, or Hydrology N 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland CC	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Water Table Present? Yes <u>X</u> No _____	Depth (inches): <u>4</u>		
Saturation Present? Yes <u>X</u> No _____	Depth (inches): <u>4</u>		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			



**VEGETATION** – Use scientific names of plants.

 Sampling Point: CC-1

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus americana</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>30</u>	=Total Cover	<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>120</u> (A)</td> <td><u>300</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.50</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>120</u> (A)	<u>300</u> (B)	Prevalence Index = B/A = <u>2.50</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>90</u>	x 2 = <u>180</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>30</u>	x 4 = <u>120</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>120</u> (A)	<u>300</u> (B)																			
Prevalence Index = B/A = <u>2.50</u>																				
Sapling/Shrub Stratum (Plot size: <u>15</u> )																				
1. <u>Cornus sericea</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>40</u>	=Total Cover																	
Herb Stratum (Plot size: <u>5</u> )																				
1. <u>Phragmites australis</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation</u> <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>50</u>	=Total Cover																	
Woody Vine Stratum (Plot size: <u>30</u> )																				
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		_____	=Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.)																				

## SOIL

Sampling Point	CC-1
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[illegible]



**Wetland CC - Soils**

**Phase 7**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE Phase 5 City/County: Catskill Sampling Date: 11/29/2021  
 Applicant/Owner: CHA State: NY Sampling Point: CC-14 Upland  
 Investigator(s): Nick Dominic/Justin Williams Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope %: \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42.21032 Long: -73.88799 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: Upland  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Upland for WL-CC	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> _____ 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)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: CC-14 Upland

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Quercus rubra</u>	50	Yes	FACU	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%;">Multiply by:</th> <th style="width: 20%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;">0</td> <td>x 1 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">0</td> <td>x 2 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">0</td> <td>x 3 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">105</td> <td>x 4 =</td> <td style="text-align: center;">420</td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">60</td> <td>x 5 =</td> <td style="text-align: center;">300</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;">165</td> <td>(A)</td> <td style="text-align: center;">720 (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;">4.36</td> </tr> </tbody> </table>	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	105	x 4 =	420	UPL species	60	x 5 =	300	Column Totals:	165	(A)	720 (B)	Prevalence Index = B/A =			4.36
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	105	x 4 =	420																																	
UPL species	60	x 5 =	300																																	
Column Totals:	165	(A)	720 (B)																																	
Prevalence Index = B/A =			4.36																																	
2. <u>Acer saccharinum</u>	35	Yes	FACU																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
	85	=Total Cover																																		
Sapling/Shrub Stratum (Plot size: _____)																																				
1. <u>Lonicera spp.</u>	20	Yes	FACU	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
	20	=Total Cover																																		
Herb Stratum (Plot size: _____)																																				
1. <u>Solidago spp.</u>	50	Yes	UPL	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>  X  </u>																																
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
9. _____																																				
10. _____																																				
11. _____																																				
12. _____																																				
	50	=Total Cover																																		
Woody Vine Stratum (Plot size: _____)																																				
1. <u>Celastrus orbiculatus</u>	10	Yes	UPL																																	
2. _____																																				
3. _____																																				
4. _____																																				
	10	=Total Cover																																		

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



## SOIL

Sampling Point CC-14 Upland

[illegible]



**Upland CC- Soils**

**Phase 7**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 25, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GO  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.210070°N Long: 73.886207°W Datum: NAD83  
 Soil Map Unit Name: HvB - Hudson and Vergennes soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>GO</u>
Remarks: (Explain alternative procedures here or in a separate report.) Large PEM Wetland located in a depression/ drainageway field area located in a Phragmites stand.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)	
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)	
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)	
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)	
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)	
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)	
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Stunted or Stressed Plants (D1)	
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)	
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)	
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)	
		<u>      </u> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Wetland hydrology present at the Data Point.			

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GO

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Quercus rubra</u>	5	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>5</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>105</u> (A)</td> <td><u>220</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.09	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>105</u> (A)	<u>220</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>100</u>	x 2 = <u>200</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>5</u>	x 4 = <u>20</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>105</u> (A)	<u>220</u> (B)																	
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Phragmites australis</u>	100	Yes	FACW															
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														

## SOIL

Sampling Point: DP-GO

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.





**PEM Wetland GO- View facing South.**



**PEM Wetland GO- Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 25, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GO-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.210068°N Long: 73.886255°W Datum: NAD83  
 Soil Map Unit Name: HvB- Hudson and Vergennes soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland GO located within a small, forested area.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GO-Upland

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Quercus rubra</u>	25	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B)														
2. <u>Carya cordiformis</u>	15	Yes	FAC															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>40</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>25</u></td> <td>x 3 = <u>75</u></td> </tr> <tr> <td>FACU species <u>125</u></td> <td>x 4 = <u>500</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>150</u> (A)</td> <td><u>575</u> (B)</td> </tr> </table> Prevalence Index = B/A = 3.83	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>25</u>	x 3 = <u>75</u>	FACU species <u>125</u>	x 4 = <u>500</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>150</u> (A)	<u>575</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>25</u>	x 3 = <u>75</u>																	
FACU species <u>125</u>	x 4 = <u>500</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>150</u> (A)	<u>575</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Frangula alnus</u>	10	Yes	FAC															
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>10</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Solidago canadensis</u>	50	Yes	FACU															
2. <u>Parthenocissus quinquefolia</u>	20	Yes	FACU															
3. <u>Fragaria virginiana</u>	10	No	FACU															
4. <u>Dactylis glomerata</u>	10	No	FACU															
5. <u>Quercus rubra</u>	10	No	FACU															
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> <table style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px;">Yes</td> <td style="width: 20px;">_____</td> <td style="width: 20px;">No</td> <td style="width: 20px;">_____</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;"><u>X</u></td> </tr> </table>	Yes	_____	No	_____				<u>X</u>						
Yes	_____	No	_____															
			<u>X</u>															

## Upland

Upland

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,
<input type="checkbox"/> Histic Epipedon (A2)	<b>MLRA 149B)</b>
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b>
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b>	

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<b>Restrictive Layer (if observed):</b> Type: <u>Compaction</u> Depth (inches): 7	Hydric Soil Present? Yes <u>      </u> No <u>X</u>
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**Upland GO- View facing South.**



**Upland GO Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 8, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-DC-PEM  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.203618°N Long: 73.893490°W Datum: NAD83  
 Soil Map Unit Name: - Hudson and Vergennes soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>DC</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland Data Point for Wetland DC located with Phragmites stand adjacent to an open grass field.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)	
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)	
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)	
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)	
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)	
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)	
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Stunted or Stressed Plants (D1)	
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)	
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)	
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)	
		<u>      </u> FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	
Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches):			
Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches):			
Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): (includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Wetland hydrology present at the Data Point.			

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-DC-PEM

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>45</u></td> <td>x 3 = <u>135</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>295</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.36	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>45</u>	x 3 = <u>135</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>295</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>80</u>	x 2 = <u>160</u>																	
FAC species <u>45</u>	x 3 = <u>135</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>125</u> (A)	<u>295</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Cornus racemosa</u>	<u>45</u>	<u>Yes</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u> X </u> 2 - Dominance Test is >50% <u> X </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>45</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Phragmites australis</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>80</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> Present?      Yes <u> X </u> No      _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		



## SOIL

Sampling Point: DP-DC-PEM

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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) (**LRR R, MLRA 149B**)

- ☐ Polyvalue Below Surface (S8) (**LRR R**, **MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R**, **MLRA 149B**)
- ☐ 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)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.



**PEM Wetland DC- View facing North.**



**PEM Wetland DC- Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 8, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-DC-PFO  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.203717°N Long: 73.893410°W Datum: NAD83  
 Soil Map Unit Name: - Hudson and Vergennes soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>DC</u>
Remarks: (Explain alternative procedures here or in a separate report.) PFO Wetland DC located within small, forested area adjacent to an open grass field.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)	
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)	
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)	
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)	
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)	
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)	
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Stunted or Stressed Plants (D1)	
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)	
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)	
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)	
		<u>      </u> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Wetland hydrology present at the Data Point.			

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-DC-PFO

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Fraxinus pennsylvanica</u>	<u>65</u>	<u>Yes</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>65</u> = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																		
1. <u>Frangula alnus</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>105</u></td> <td>x 2 = <u>210</u></td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>150</u> (A)</td> <td><u>355</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.36	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>105</u>	x 2 = <u>210</u>	FAC species <u>35</u>	x 3 = <u>105</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>150</u> (A)	<u>355</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>105</u>	x 2 = <u>210</u>																	
FAC species <u>35</u>	x 3 = <u>105</u>																	
FACU species <u>10</u>	x 4 = <u>40</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>150</u> (A)	<u>355</u> (B)																	
2. <u>Lonicera morrowii</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>25</u> = Total Cover																		
<b>Herb Stratum (Plot size: 5 ft.)</b>																		
1. <u>Impatiens capensis</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Phragmites australis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>															
3. <u>Toxicodendron radicans</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>60</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-DC-PFO

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 8

Hydric Soil Present?	Yes	X	No
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Remarks:

Remarks:  
Could not dig past 8 inches due to root / compaction, hydric soils present at the Data Point.





**PFO Wetland DC- View facing North.**



**PFO Wetland DC- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE Phase 7 City/County: Catskill Sampling Date: 12/7/21  
Applicant/Owner: CHA State: NY Sampling Point: EC-2  
Investigator(s): Nick Dominic/Justin Williams Section, Township, Range: \_\_\_\_\_  
Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope %: \_\_\_\_\_  
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42.19955 Long: -73.89682 Datum: NAD83  
Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation No, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation N, Soil N, or Hydrology N 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland EC	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	<u>_____</u> Surface Soil Cracks (B6)	
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	<u>_____</u> Drainage Patterns (B10)	
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	<u>_____</u> Moss Trim Lines (B16)	
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	<u>_____</u> Dry-Season Water Table (C2)	
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	<u>_____</u> Crayfish Burrows (C8)	
_____ Drift Deposits (B3)	<u>X</u> Presence of Reduced Iron (C4)	<u>_____</u> Saturation Visible on Aerial Imagery (C9)	
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	<u>_____</u> Stunted or Stressed Plants (D1)	
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	<u>_____</u> Geomorphic Position (D2)	
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	<u>_____</u> Shallow Aquitard (D3)	
_____ Sparsely Vegetated Concave Surface (B8)		<u>_____</u> Microtopographic Relief (D4)	
		<u>_____</u> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes <u>X</u> No _____	Depth (inches): <u>3</u>	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Water Table Present? Yes <u>X</u> No _____	Depth (inches): <u>6</u>		
Saturation Present? Yes <u>X</u> No _____	Depth (inches): <u>0</u>		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION** – Use scientific names of plants.

 Sampling Point: EC-2

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Juniperus virginiana</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71.4%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>30</u> =Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>45</u></td> <td>x 3 = <u>135</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>165</u> (A)</td> <td><u>475</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.88</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>45</u>	x 3 = <u>135</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>165</u> (A)	<u>475</u> (B)	Prevalence Index = B/A = <u>2.88</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>70</u>	x 2 = <u>140</u>																			
FAC species <u>45</u>	x 3 = <u>135</u>																			
FACU species <u>50</u>	x 4 = <u>200</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>165</u> (A)	<u>475</u> (B)																			
Prevalence Index = B/A = <u>2.88</u>																				
<u>40</u> =Total Cover																				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u> )</b>																				
1. <u>Lonicera</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u>Rhamnus cathartica</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>40</u> =Total Cover																				
<b>Herb Stratum (Plot size: <u>5</u> )</b>																				
1. <u>Onoclea sensibilis</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Solidago</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Phragmites australis</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>90</u> =Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>30</u> )</b>																				
1. <u>Vitis riparia</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
<u>5</u> =Total Cover																				
<b>Hydrophytic Vegetation Present?</b> <b>Yes</b> <u>  x  </u> <b>No</b> <u>      </u>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

## SOIL

Sampling Point      EC-2

[illegible]



**Wetland EC - Soils**

**Phase 7**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 8, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-EC/DC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.202437°N Long: 73.894446°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland EC and Wetland DC located within an open grass field.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

DP-EC-Upland /  
Sampling Point: DP-DC-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status																
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)															
2. _____	_____	_____	_____																
3. _____	_____	_____	_____																
4. _____	_____	_____	_____																
5. _____	_____	_____	_____																
6. _____	_____	_____	_____																
7. _____	_____	_____	_____																
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>390</u> (B)</td> </tr> </table> Prevalence Index = B/A = 3.9		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>390</u> (B)
Total % Cover of:	Multiply by:																		
OBL species <u>0</u>	x 1 = <u>0</u>																		
FACW species <u>0</u>	x 2 = <u>0</u>																		
FAC species <u>10</u>	x 3 = <u>30</u>																		
FACU species <u>90</u>	x 4 = <u>360</u>																		
UPL species <u>0</u>	x 5 = <u>0</u>																		
Column Totals: <u>100</u> (A)	<u>390</u> (B)																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
1. _____	_____	_____	_____																
2. _____	_____	_____	_____																
3. _____	_____	_____	_____																
4. _____	_____	_____	_____																
5. _____	_____	_____	_____																
6. _____	_____	_____	_____																
<u>0</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes      ___ No <u>X</u>															
Herb Stratum (Plot size: 5 ft.)																			
1. <u>Galium boreale</u>	<u>10</u>	<u>No</u>	<u>FAC</u>																
2. <u>Trifolium repens</u>	<u>15</u>	<u>No</u>	<u>FACU</u>																
3. <u>Plantago lanceolata</u>	<u>15</u>	<u>No</u>	<u>FACU</u>																
4. <u>Dipsacus laciniatus</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>																
5. <u>Poa pratensis</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>																
6. _____	_____	_____	_____																
7. _____	_____	_____	_____																
8. _____	_____	_____	_____																
9. _____	_____	_____	_____																
10. _____	_____	_____	_____																
11. _____	_____	_____	_____																
12. _____	_____	_____	_____																
<u>100</u> = Total Cover																			
Woody Vine Stratum (Plot size: 30 ft.)				<b>Hydrophytic Vegetation Present?</b> Yes      ___ No <u>X</u>															
1. _____	_____	_____	_____																
2. _____	_____	_____	_____																
3. _____	_____	_____	_____																
4. _____	_____	_____	_____																
<u>0</u> = Total Cover																			
Remarks: (Include photo numbers here or on a separate sheet.)																			
No hydrophytic vegetation found at the Data Point.																			



## Upland / DP-DC-Upland

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

- \_\_\_ 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) (**LRR R, MLRA 149B**)

- \_\_\_ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- \_\_\_ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- \_\_\_ 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)

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: None

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes No **X**

Remarks:  
No hydric soils present, soils are dark due to open field.



**Upland DC/EC- View facing North.**



**Upland DC/EC Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 23, 2022

Applicant/Owner: CHA State: NY Sampling Point: DP-GD

Investigator(s): Tristen Peterson Section, Township, Range: Catskill

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR R Lat: 42.199891°N Long: 73.897246°W Datum: NAD83

Soil Map Unit Name: HwC3 - Hudson and Vergennes soils, 8 to 15 percent s NWI classification: Not Mapped

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

~~Yes~~ 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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>GD</u>

Remarks: (Explain alternative procedures here or in a separate report.)  
PEM Wetland located in a drainageway within a Phragmites stand.

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>      </u> No <u>X</u>
--	---

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

Remarks:  
Wetland hydrology present at the Data Point.

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GD

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>85</u></td> <td>x 2 = <u>170</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>215</u> (B)</td> </tr> </table> Prevalence Index = B/A = 1.95	Total % Cover of:	Multiply by:	OBL species <u>15</u>	x 1 = <u>15</u>	FACW species <u>85</u>	x 2 = <u>170</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>215</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>15</u>	x 1 = <u>15</u>																	
FACW species <u>85</u>	x 2 = <u>170</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>110</u> (A)	<u>215</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Populus deltoides</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>10</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Phragmites australis</u>	<u>65</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Lythrum salicaria</u>	<u>15</u>	<u>No</u>	<u>OBL</u>															
3. <u>Juncus torreyi</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-GD

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input checked="" type="checkbox"/> <b>X</b> Redox Dark Surface (F6)       |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 10

Hydric Soil Present?	Yes	X	No
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Remarks:

Remarks: Could not dig past 10 inches due to gravel refusal, no hydric soils present at the Data Point.





**PEM Wetland GD- View facing South.**



**PEM Wetland GD- Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**





**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GD-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>25</u></td> <td>x 4 = <u>100</u></td> </tr> <tr> <td>UPL species <u>55</u></td> <td>x 5 = <u>275</u></td> </tr> <tr> <td>Column Totals: <u>85</u> (A)</td> <td><u>390</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.58	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>25</u>	x 4 = <u>100</u>	UPL species <u>55</u>	x 5 = <u>275</u>	Column Totals: <u>85</u> (A)	<u>390</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>5</u>	x 3 = <u>15</u>																	
FACU species <u>25</u>	x 4 = <u>100</u>																	
UPL species <u>55</u>	x 5 = <u>275</u>																	
Column Totals: <u>85</u> (A)	<u>390</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Daucus carota</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>															
2. <u>Galium boreale</u>	<u>5</u>	<u>No</u>	<u>FAC</u>															
3. <u>Tridens flavus</u>	<u>15</u>	<u>No</u>	<u>UPL</u>															
4. <u>Poa pratensis</u>	<u>15</u>	<u>No</u>	<u>FACU</u>															
5. <u>Trifolium repens</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
6. <u>Leucanthemum vulgare</u>	<u>10</u>	<u>No</u>	<u>UPL</u>															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>95</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
No hydrophytic vegetation found at the Data Point.																		

Upland

Sampling Point: DP-GD-

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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) (**LRR R, MLRA 149B**)

- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- 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)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 6

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

No hydric soils present at the Data Point, could not dig past 6 inches due to gravel refusal.



**Upland GD- View facing South.**



**Upland GD- Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 6, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TD  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.195511°N Long: 73.899937°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>TD</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland Data Point located in a drainage way and extends outside of the Project Study Limits.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>7</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>1</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TD

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>85</u></td> <td>x 2 = <u>170</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>205</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.05	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>85</u>	x 2 = <u>170</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>205</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>5</u>	x 1 = <u>5</u>																	
FACW species <u>85</u>	x 2 = <u>170</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>205</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Phragmites australis</u>	<u>70</u>	<u>Yes</u>	<u>FACW</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
2. <u>Solidago rugosa</u>	<u>10</u>	<u>No</u>	<u>FAC</u>															
3. <u>Symphyotrichum novae-angliae</u>	<u>15</u>	<u>No</u>	<u>FACW</u>															
4. <u>Carex flava</u>	<u>5</u>	<u>No</u>	<u>OBL</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		



## SOIL

Sampling Point: DP-TD

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 15

Hydric Soil Present?	Yes	X	No
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Remarks:

Remarks: Could not dig past 15 inches due to bedrock, hydric soils present at the Data Point.



**PEM Wetland TD- View facing North.**



**PEM Wetland TD- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 6, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TD-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3  
 Subregion (LRR or MLRA): LRR R Lat: 42.195821°N Long: 73.899694°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for PEM Wetland TD located on top of a hill slope.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TD-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>50</u></td> <td>x 5 = <u>250</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>450</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.5	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>50</u>	x 5 = <u>250</u>	Column Totals: <u>100</u> (A)	<u>450</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>50</u>	x 4 = <u>200</u>																	
UPL species <u>50</u>	x 5 = <u>250</u>																	
Column Totals: <u>100</u> (A)	<u>450</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Solidago canadensis</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Ambrosia artemisiifolia</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
3. <u>Centaurea stoebe</u>	<u>15</u>	<u>No</u>	<u>UPL</u>															
4. <u>Dipsacus sativus</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>															
5. <u>Leucanthemum vulgare</u>	<u>15</u>	<u>No</u>	<u>UPL</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>X</u>														
No hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-TD-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

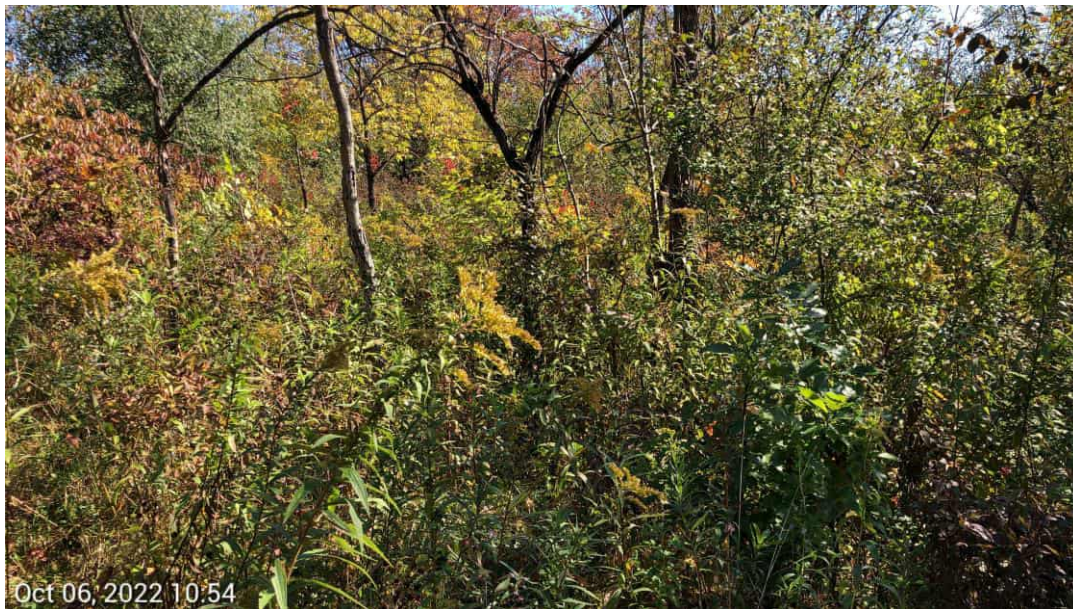
Depth (inches): 11

Hydric Soil Present? Yes No **X**

Remarks:

Remarks:  
Could not dig past 11 inches due to compaction, no hydric soils present at the Data Point.





**Upland TD- View facing North.**



**Upland TD Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 8, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-FC  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.190295°N Long: 73.904407°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>FC</u>
Remarks: (Explain alternative procedures here or in a separate report.) PSS Wetland located within a drainageway on a slight hillslope within scrub shrub area.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): 14 Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): 10 (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-FC

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>40</u></td> <td>x 1 = <u>40</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>110</u></td> <td>x 3 = <u>330</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>190</u> (A)</td> <td><u>450</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.36	Total % Cover of:	Multiply by:	OBL species <u>40</u>	x 1 = <u>40</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>110</u>	x 3 = <u>330</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>190</u> (A)	<u>450</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>40</u>	x 1 = <u>40</u>																	
FACW species <u>40</u>	x 2 = <u>80</u>																	
FAC species <u>110</u>	x 3 = <u>330</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>190</u> (A)	<u>450</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Cornus racemosa</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>															
2. <u>Frangula alnus</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>85</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Lythrum salicaria</u>	<u>20</u>	<u>No</u>	<u>OBL</u>															
2. <u>Cornus racemosa</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>															
3. <u>Impatiens capensis</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>															
4. <u>Juncus pylaei</u>	<u>20</u>	<u>No</u>	<u>OBL</u>															
5. <u>Phalaris arundinacea</u>	<u>10</u>	<u>No</u>	<u>FACW</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>105</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-FC

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>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) (**LRR R, MLRA 149B**)

- ☐ Polyvalue Below Surface (S8) (**LRR R**, **MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R**, **MLRA 149B**)
- ☐ 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)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
----------------------	-----	---	----

Remarks:

Hydric soils present at the Data Point.



**PSS Wetland FC- View facing North.**



**PSS Wetland FC- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 8, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-FC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3  
 Subregion (LRR or MLRA): LRR R Lat: 42.190210°N Long: 73.904585°W Datum: NAD83  
 Soil Map Unit Name: - Udorthents, loamy-Urban land complex NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for PSS Wetland FC located on a slight hillslope along the railroad bed.		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
Primary Indicators (minimum of one is required; check all that apply)			
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)	
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)	
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)	
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)	
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)	
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)	
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)	
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)	
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)	
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)	
		<u>      </u> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes <u>      </u> No <u>X</u>	Depth (inches):	Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	
Water Table Present? Yes <u>      </u> No <u>X</u>	Depth (inches):		
Saturation Present? Yes <u>      </u> No <u>X</u>	Depth (inches):		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: No wetland hydrology present at the Data Point.			



**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-FC-Upland

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Rhus typhina</u>	35	Yes	UPL	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>35</u> = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																		
1. _____				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>105</u></td> <td>x 4 = <u>420</u></td> </tr> <tr> <td>UPL species <u>35</u></td> <td>x 5 = <u>175</u></td> </tr> <tr> <td>Column Totals: <u>140</u> (A)</td> <td><u>595</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.25	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>105</u>	x 4 = <u>420</u>	UPL species <u>35</u>	x 5 = <u>175</u>	Column Totals: <u>140</u> (A)	<u>595</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>105</u>	x 4 = <u>420</u>																	
UPL species <u>35</u>	x 5 = <u>175</u>																	
Column Totals: <u>140</u> (A)	<u>595</u> (B)																	
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>0</u> = Total Cover																		
<b>Herb Stratum (Plot size: 5 ft.)</b>																		
1. <u>Solidago canadensis</u>	20	No	FACU	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Ambrosia artemisiifolia</u>	40	Yes	FACU															
3. <u>Poa pratensis</u>	45	Yes	FACU															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>105</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																		
1. _____				<b>Hydrophytic Vegetation</b> Present?      Yes <u>    </u> No <u>  X  </u>														
2. _____																		
3. _____																		
4. _____																		
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-FC-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 10

Hydric Soil Present? Yes No **X**

Remarks:

Remarks: No hydric soils present at the Data Point. Dark soils due to area being along the railroad.



**Upland FC- View facing North.**



**Upland FC Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 26, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GR  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.188276°N Long: 73.906324°W Datum: NAD83  
 Soil Map Unit Name: Hvb - Hudson and Vergennes soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>GR</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>	
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located in a depression adjacent to access road.		

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>6</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GR

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>25</u></td> <td>x 3 = <u>75</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>265</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.12	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>25</u>	x 3 = <u>75</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>265</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>10</u>	x 1 = <u>10</u>																	
FACW species <u>90</u>	x 2 = <u>180</u>																	
FAC species <u>25</u>	x 3 = <u>75</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>125</u> (A)	<u>265</u> (B)																	
1. <u>Frangula alnus</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>15</u> = Total Cover																		
<b>Herb Stratum (Plot size: 5 ft.)</b>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Phragmites australis</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Lythrum salicaria</u>	<u>10</u>	<u>No</u>	<u>OBL</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. <u>Vitis riparia</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>10</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														



## SOIL

Sampling Point: DP-GR

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input checked="" type="checkbox"/> <b>X</b> Redox Dark Surface (F6)       |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.



**PEM Wetland GR- View facing North.**



**PEM Wetland GR- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 26, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GR-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.188258°N Long: 73.906431°W Datum: NAD83  
 Soil Map Unit Name: HvB- Hudson and Vergennes soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for an area located adjacent to access road.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GR-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>65</u></td> <td>x 4 = <u>260</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>365</u> (B)</td> </tr> </table> Prevalence Index = B/A = 3.65	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>35</u>	x 3 = <u>105</u>	FACU species <u>65</u>	x 4 = <u>260</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>365</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>35</u>	x 3 = <u>105</u>																	
FACU species <u>65</u>	x 4 = <u>260</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>365</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Frangula alnus</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>15</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Dactylis glomerata</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Galium boreale</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>															
3. <u>Poa pratensis</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>85</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> Present?      Yes <u>  X  </u> No      _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																		

## Upland

Upland

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> <b>MLRA 149B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> )
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> )	

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: Compaction

Depth (inches): 4

Hydric Soil Present? Yes No **X**

Remarks:  
Could not dig past 4 inches due to bedrock, no hydric soils present at the Data Point.





**Upland GR- View facing South.**



**Upland GR Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 5, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TB  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.181009°N Long: 73.908867°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>TB</u>
Remarks: (Explain alternative procedures here or in a separate report.) PSS Wetland located on a slight drainageway within scrub shrub area.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>5</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TB

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.6</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>80</u></td> <td>x 3 = <u>240</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>180</u> (A)</td> <td><u>520</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.88	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>80</u>	x 3 = <u>240</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>180</u> (A)	<u>520</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>30</u>	x 1 = <u>30</u>																	
FACW species <u>20</u>	x 2 = <u>40</u>																	
FAC species <u>80</u>	x 3 = <u>240</u>																	
FACU species <u>40</u>	x 4 = <u>160</u>																	
UPL species <u>10</u>	x 5 = <u>50</u>																	
Column Totals: <u>180</u> (A)	<u>520</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Frangula alnus</u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>															
2. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>No</u>	<u>FACW</u>															
3. <u>Cornus racemosa</u>	<u>10</u>	<u>No</u>	<u>FAC</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>90</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Parthenocissus quinquefolia</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Carex flava</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>															
3. <u>Eurybia surculosa</u>	<u>10</u>	<u>No</u>	<u>UPL</u>															
4. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>No</u>	<u>FACW</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>90</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-TB

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 13

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.





**PSS Wetland TB- View facing North.**



**PSS Wetland TB- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 5, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TB-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3  
 Subregion (LRR or MLRA): LRR R Lat: 42.180752°N Long: 73.909148°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	
If yes, optional Wetland Site ID: <u>      </u>		
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland TB located in an open meadow field.		

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TB-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species <u>55</u></td> <td>x 5 = <u>275</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>445</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.45	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>55</u>	x 5 = <u>275</u>	Column Totals: <u>100</u> (A)	<u>445</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>35</u>	x 4 = <u>140</u>																	
UPL species <u>55</u>	x 5 = <u>275</u>																	
Column Totals: <u>100</u> (A)	<u>445</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Centaurea stoebe</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>															
2. <u>Leucanthemum vulgare</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>															
3. <u>Plantago lanceolata</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>															
4. <u>Achillea millefolium</u>	<u>15</u>	<u>No</u>	<u>FACU</u>															
5. <u>Cornus racemosa</u>	<u>10</u>	<u>No</u>	<u>FAC</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation</b> Present?      Yes <u>    </u> No <u>X</u>														
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-TB-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present? Yes No **X**

Remarks:

No hydric soils present at the Data Point.



**Upland TB- View facing North.**



**Upland TB Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 7, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GC-PSS  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.180717°N Long: 73.909601°W Datum: NAD83  
 Soil Map Unit Name: - Klingsbury and Rhinebeck soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>GC</u>
Remarks: (Explain alternative procedures here or in a separate report.) PSS Wetland located within a scrub shrub area adjacent to access road.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		



**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GC-PSS

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Ulmus americana</u>	10	Yes	FACW	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
10 = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>75</u></td> <td>x 3 = <u>225</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>165</u> (A)</td> <td><u>405</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.45	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>75</u>	x 3 = <u>225</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>165</u> (A)	<u>405</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>90</u>	x 2 = <u>180</u>																	
FAC species <u>75</u>	x 3 = <u>225</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>165</u> (A)	<u>405</u> (B)																	
1. <u>Cornus racemosa</u>	55	Yes	FAC															
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
55 = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <u>   </u> 1 - Rapid Test for Hydrophytic Vegetation <u> X </u> 2 - Dominance Test is >50% <u> X </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>   </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>   </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Phragmites australis</u>	80	Yes	FACW															
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
80 = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. <u>Vitis riparia</u>	20	Yes	FAC															
2. _____																		
3. _____																		
4. _____																		
20 = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u> X </u> No      _____														

## SOIL

Sampling Point: DP-GC-PSS

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>MLRA 149B</b>   |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> )       |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
----------------------	-----	---	----

Remarks:

Hydric soils present at the Data Point.



**PSS Wetland GC- View facing North.**



**PSS Wetland GC- Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 22, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3  
 Subregion (LRR or MLRA): LRR R Lat: 42.167277°N Long: 73.916933°W Datum: NAD83  
 Soil Map Unit Name: - Kingsbury and Rhinebeck soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for area located within a gentle hill slope along gravel access road.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-GC-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status																
1. <u>Juglans nigra</u>	25	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)															
2. <u>Rhus typhina</u>	15	Yes	UPL																
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
<u>40</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>125</u></td> <td>x 4 = <u>500</u></td> </tr> <tr> <td>UPL species <u>15</u></td> <td>x 5 = <u>75</u></td> </tr> <tr> <td>Column Totals: <u>140</u> (A)</td> <td><u>575</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.10		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>125</u>	x 4 = <u>500</u>	UPL species <u>15</u>	x 5 = <u>75</u>	Column Totals: <u>140</u> (A)	<u>575</u> (B)
Total % Cover of:	Multiply by:																		
OBL species <u>0</u>	x 1 = <u>0</u>																		
FACW species <u>0</u>	x 2 = <u>0</u>																		
FAC species <u>0</u>	x 3 = <u>0</u>																		
FACU species <u>125</u>	x 4 = <u>500</u>																		
UPL species <u>15</u>	x 5 = <u>75</u>																		
Column Totals: <u>140</u> (A)	<u>575</u> (B)																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																			
1. _____																			
2. _____																			
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
<b>Herb Stratum (Plot size: 5 ft.)</b>																			
1. <u>Lolium perenne</u>	60	Yes	FACU																
2. <u>Trifolium repens</u>	20	Yes	FACU																
3. <u>Solidago canadensis</u>	20	Yes	FACU																
4. _____																			
5. _____																			
6. _____																			
7. _____																			
8. _____																			
9. _____																			
10. _____																			
11. _____																			
12. _____																			
<u>100</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.															
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																			
1. _____																			
2. _____																			
3. _____																			
4. _____																			
<u>0</u> = Total Cover																			
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																			



## Upland

Upland

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

- ☐ 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) (**LRR R, MLRA 149B**)

- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- 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)

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: Compaction

Depth (inches): 3

Hydric Soil Present? Yes No **X**

Remarks:  
Could not dig past 3 inches due to gravel compaction, no hydric soils present at the Data Point.



**Upland GC- View facing South.**



**Upland GC- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 5, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TC-PEM  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.179047°N Long: 73.910161°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>TC</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located within a depression adjacent to the access road.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): 4 (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TC-PEM

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>220</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.2	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>220</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>80</u>	x 2 = <u>160</u>																	
FAC species <u>20</u>	x 3 = <u>60</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>220</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Phragmites australis</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Solidago rugosa</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														

## SOIL

Sampling Point: DP-TC-PEM

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.





**PEM Wetland TC- View facing North.**



**PEM Wetland TC- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 5, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.179391°N Long: 73.910044°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for PEM Wetland TC located in an open meadow field.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TC-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>70</u></td> <td>x 4 = <u>280</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>80</u> (A)</td> <td><u>330</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.12	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>70</u>	x 4 = <u>280</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>80</u> (A)	<u>330</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>70</u>	x 4 = <u>280</u>																	
UPL species <u>10</u>	x 5 = <u>50</u>																	
Column Totals: <u>80</u> (A)	<u>330</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Lolium perenne</u>	<u>70</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Dipsacus fullonum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>															
3. <u>Asclepias syriaca</u>	<u>10</u>	<u>No</u>	<u>UPL</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
No hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-TC-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present? Yes No **X**

Remarks:

Remarks:  
No hydric soils present at the Data Point.





**Upland TC- View facing East.**



**Upland TC Soils**

**SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 5, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TC-PFO  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.176841°N Long: 73.911050°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>TC</u>
Remarks: (Explain alternative procedures here or in a separate report.) Wetland TC located in a drainageway within a wooded area.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): 4 Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): 1 (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TC-PFO

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status																
1. <u>Fraxinus pennsylvanica</u>	40	Yes	FACW	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)															
2. <u>Ulmus americana</u>	20	Yes	FACW																
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
	60	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>115</u></td> <td>x 2 = <u>230</u></td> </tr> <tr> <td>FAC species <u>125</u></td> <td>x 3 = <u>375</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>240</u> (A)</td> <td><u>605</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.52		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>115</u>	x 2 = <u>230</u>	FAC species <u>125</u>	x 3 = <u>375</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>240</u> (A)	<u>605</u> (B)
Total % Cover of:	Multiply by:																		
OBL species <u>0</u>	x 1 = <u>0</u>																		
FACW species <u>115</u>	x 2 = <u>230</u>																		
FAC species <u>125</u>	x 3 = <u>375</u>																		
FACU species <u>0</u>	x 4 = <u>0</u>																		
UPL species <u>0</u>	x 5 = <u>0</u>																		
Column Totals: <u>240</u> (A)	<u>605</u> (B)																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																			
1. <u>Fraxinus pennsylvanica</u>	15	Yes	FACW																
2. <u>Frangula alnus</u>	60	Yes	FAC																
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
	75	= Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
<b>Herb Stratum (Plot size: 5 ft.)</b>																			
1. <u>Cornus racemosa</u>	25	Yes	FAC																
2. <u>Solidago rugosa</u>	40	Yes	FAC																
3. <u>Symphyotrichum novae-angliae</u>	10	No	FACW																
4. <u>Lysimachia nummularia</u>	30	Yes	FACW																
5. _____																			
6. _____																			
7. _____																			
8. _____																			
9. _____																			
10. _____																			
11. _____																			
12. _____																			
	105	= Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.															
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																			
1. _____																			
2. _____																			
3. _____																			
4. _____																			
	0	= Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>															

## SOIL

Sampling Point: DP-TC-PFO

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.



**PFO Wetland TC- View facing North.**



**PFO Wetland TC- Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 5, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.176950°N Long: 73.911041°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for PFO Wetland TC located in an open meadow field.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		



**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TC-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>45</u></td> <td>x 4 = <u>180</u></td> </tr> <tr> <td>UPL species <u>55</u></td> <td>x 5 = <u>275</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>455</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.55	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>45</u>	x 4 = <u>180</u>	UPL species <u>55</u>	x 5 = <u>275</u>	Column Totals: <u>100</u> (A)	<u>455</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>45</u>	x 4 = <u>180</u>																	
UPL species <u>55</u>	x 5 = <u>275</u>																	
Column Totals: <u>100</u> (A)	<u>455</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Galium pilosum</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>															
2. <u>Plantago pusilla</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>															
3. <u>Centaurea stoebe</u>	<u>15</u>	<u>No</u>	<u>UPL</u>															
4. <u>Tridens flavus</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>															
5. <u>Solidago canadensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>														
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-TC-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L)</b>       |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: None

Depth (inches):

Hydric Soil Present? Yes No **X**

Remarks:

No hydric soils present at the Data Point.



**Upland TC- View facing East.**



**Upland TC Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE Phase 7 City/County: Catskill Sampling Date: 12/13/21  
 Applicant/Owner: CHA State: NY Sampling Point: HC-2  
 Investigator(s): Nick Dominic/Justin Williams Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope %: \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42.17495 Long: -73.91288 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland HC	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u>X</u> Surface Water (A1) _____ Water-Stained Leaves (B9) <u>X</u> High Water Table (A2) _____ Aquatic Fauna (B13) <u>X</u> Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) <u>X</u> Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> _____ 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)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>2</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: HC-2

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Juniperus virginiana</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>20</u>	<u>=Total Cover</u>		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>130</u></td> <td>x 2 = <u>260</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>150</u> (A)</td> <td><u>340</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.27</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>130</u>	x 2 = <u>260</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>150</u> (A)	<u>340</u> (B)	Prevalence Index = B/A = <u>2.27</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>130</u>	x 2 = <u>260</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>150</u> (A)	<u>340</u> (B)																			
Prevalence Index = B/A = <u>2.27</u>																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u> )				<b>Hydrophytic Vegetation Indicators:</b>  <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Cornus sericea</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	<u>40</u>	<u>=Total Cover</u>																		
<u>Herb Stratum</u> (Plot size: <u>5</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>  x  </u> No <u>      </u>																
1. <u>Onoclea sensibilis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
2. <u>Phragmites australis</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	<u>90</u>	<u>=Total Cover</u>																		
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	_____	<u>=Total Cover</u>																		

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



## SOIL

Sampling Point HC-2

[illegible]



**Wetland HC- View facing West**



**Wetland HC- Soils**

**Phase 7**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE Phase 5 City/County: Catskill Sampling Date: 11/30/2021  
 Applicant/Owner: CHA State: NY Sampling Point: HC-6 Upland  
 Investigator(s): Nick Dominic/Justin Williams Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope %: \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42.17461 Long: -73.91333 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: Upland

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 \_\_\_\_\_ 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ 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)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	

**VEGETATION** – Use scientific names of plants.

 Sampling Point: HC-6 Upland

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fagus gandolfia</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>110</u></td> <td>x 4 = <u>440</u></td> </tr> <tr> <td>UPL species <u>30</u></td> <td>x 5 = <u>150</u></td> </tr> <tr> <td>Column Totals: <u>140</u> (A)</td> <td><u>590</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.21</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>110</u>	x 4 = <u>440</u>	UPL species <u>30</u>	x 5 = <u>150</u>	Column Totals: <u>140</u> (A)	<u>590</u> (B)	Prevalence Index = B/A = <u>4.21</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>110</u>	x 4 = <u>440</u>																			
UPL species <u>30</u>	x 5 = <u>150</u>																			
Column Totals: <u>140</u> (A)	<u>590</u> (B)																			
Prevalence Index = B/A = <u>4.21</u>																				
2. <u>Robinia pseudoacacia</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>40</u> =Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: <u>15</u> )</b>																				
1. <u>Rhus typhina</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Rosa multiflora</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>50</u> =Total Cover																		
<b>Herb Stratum (Plot size: <u>5</u> )</b>																				
1. <u>Galium spp.</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>X</u>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
		<u>50</u> =Total Cover																		
<b>Woody Vine Stratum (Plot size: <u>30</u> )</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		_____ =Total Cover																		

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

## SOIL

Sampling Point HC-6 Upland

[illegible]





**Upland HC- Soils**

**Phase 7**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 6, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TF  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.170568°N Long: 73.913913°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>TF</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located in a drainageway adjacent to access road along a hillslope.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>3</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>1</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TF

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Populus deltoides</u>	10	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. <u>Salix nigra</u>	30	Yes	OBL															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>40</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>50</u></td> <td>x 1 = <u>50</u></td> </tr> <tr> <td>FACW species <u>165</u></td> <td>x 2 = <u>330</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>225</u> (A)</td> <td><u>410</u> (B)</td> </tr> </table> Prevalence Index = B/A = 1.82	Total % Cover of:	Multiply by:	OBL species <u>50</u>	x 1 = <u>50</u>	FACW species <u>165</u>	x 2 = <u>330</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>225</u> (A)	<u>410</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>50</u>	x 1 = <u>50</u>																	
FACW species <u>165</u>	x 2 = <u>330</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>225</u> (A)	<u>410</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Fraxinus pennsylvanica</u>	30	Yes	FACW															
2. <u>Cornus amomum</u>	50	Yes	FACW															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>80</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Symplocarpus foetidus</u>	20	No	OBL															
2. <u>Phragmites australis</u>	65	Yes	FACW															
3. <u>Fraxinus pennsylvanica</u>	20	No	FACW															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>105</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-TF

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 12

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.





**PEM Wetland TF- View facing South.**



**PEM Wetland TF- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 6, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TF-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.170705°N Long: 73.914037°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland TF located along an active access road.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TF-Upland

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>60</u></td> <td>x 4 = <u>240</u></td> </tr> <tr> <td>UPL species <u>15</u></td> <td>x 5 = <u>75</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>315</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.2	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>60</u>	x 4 = <u>240</u>	UPL species <u>15</u>	x 5 = <u>75</u>	Column Totals: <u>75</u> (A)	<u>315</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>60</u>	x 4 = <u>240</u>																	
UPL species <u>15</u>	x 5 = <u>75</u>																	
Column Totals: <u>75</u> (A)	<u>315</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Ambrosia artemisiifolia</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Daucus carota</u>	<u>15</u>	<u>Yes</u>	<u>UPL</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>75</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> Present?      Yes <u>      </u> No <u>  X  </u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
No hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-TF-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 3

Hydric Soil Present? Yes No **X**

Remarks:

Remarks:  
Could not dig past 3 inches due to compaction, no hydric soils present at the Data Point.

No Photos

**Upland TF-**

No Photos

**Upland TF Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE Phase 7 City/County: Catskill Sampling Date: 12/13/21  
 Applicant/Owner: CHA State: NY Sampling Point: IC-2  
 Investigator(s): Nick Dominic/Justin Williams Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope %: \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42.1715 Long: -73.91401 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland IC	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) <u>X</u> High Water Table (A2) _____ Aquatic Fauna (B13) <u>X</u> Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) <u>X</u> Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> _____ 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)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION** – Use scientific names of plants.

 Sampling Point: IC-2

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus americana</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>10</u>	<u>=Total Cover</u>		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 60%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>65</u></td> <td>x 2 = <u>130</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>170</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.27</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>65</u>	x 2 = <u>130</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>75</u> (A)	<u>170</u> (B)	Prevalence Index = B/A = <u>2.27</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>65</u>	x 2 = <u>130</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>75</u> (A)	<u>170</u> (B)																			
Prevalence Index = B/A = <u>2.27</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	_____	<u>=Total Cover</u>																		
<b>Herb Stratum</b> (Plot size: <u>5</u> )																				
1. <u>Onoclea sensibilis</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Lythrum salicaria</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Carex</u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>65</u>	<u>=Total Cover</u>																		
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	_____	<u>=Total Cover</u>																		
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																				
				<b>Hydrophytic Vegetation Present?</b> Yes <u>  x  </u> No <u>      </u>																
Remarks: (Include photo numbers here or on a separate sheet.)																				

Sampling Point IC-2

Northcentral and Northeast Region – Version 2.0

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 7, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-IC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.171364°N Long: 73.913981°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland IC located within shrub area adjacent to the access road.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-IC-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Juniperus virginiana</u>	15	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. <u>Rhus typhina</u>	20	Yes	UPL															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>35</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>20</u></td> <td>x 5 = <u>100</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>505</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.04	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>20</u>	x 5 = <u>100</u>	Column Totals: <u>125</u> (A)	<u>505</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>15</u>	x 3 = <u>45</u>																	
FACU species <u>90</u>	x 4 = <u>360</u>																	
UPL species <u>20</u>	x 5 = <u>100</u>																	
Column Totals: <u>125</u> (A)	<u>505</u> (B)																	
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>0</u> = Total Cover																		
<b>Herb Stratum (Plot size: 5 ft.)</b>																		
1. <u>Trifolium repens</u>	20	Yes	FACU	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Ambrosia artemisiifolia</u>	25	Yes	FACU															
3. <u>Galium boreale</u>	15	No	FAC															
4. <u>Parthenocissus quinquefolia</u>	30	Yes	FACU															
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>90</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																		
1. _____				<b>Hydrophytic Vegetation</b> Present?      Yes <u>    </u> No <u>  X  </u>														
2. _____																		
3. _____																		
4. _____																		
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-IC-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 5

Hydric Soil Present? Yes No **X**

Remarks:

Remarks: No hydric soils present at the Data Point, could not dig past 5 inches due to gravel refusal.





**Upland IC- View facing North.**



**Upland IC Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE- Package 7A - Concrete Plant - MP 225.4 City/County: Catskill/ Greene Sampling Date: 5/24/22  
 Applicant/Owner: CHPE State: NY Sampling Point: P7A-B- Wet  
 Investigator(s): K. Weiskotten, K. Schumacher Section, Township, Range: Town of Catskill  
 Landform (hillside, terrace, etc.): Lake Plains Local relief (concave, convex, none): Concave Slope %: 0  
 Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42°, 10', 17.02"N Long: 73°, 54', 49.86"W Datum:   
 Soil Map Unit Name: Kingsbury and Rhinebeck NWI classification: PFO  
 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 <u>X</u>	No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>	
Remarks: (Explain alternative procedures here or in a separate report.)			

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u></u> Depth (inches): <u>2</u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u>X</u> No <u></u> Depth (inches): <u>10</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u></u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: P7A-B- Wet

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus pennsylvanica</u>	15	Yes	FACW	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80.0%</u> (A/B)																
2. <u>Acer rubrum</u>	15	Yes	FAC																	
3. <u>Ulmus americana</u>	20	Yes	FACW																	
4. <u>Salix nigra</u>	15	Yes	OBL																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
65		=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>																				
1. <u>Ulmus americana</u>	10	Yes	FACW																	
2. <u>Cornus amomum</u>	5	Yes	FACW																	
3. <u>Populus deltoides</u>	5	Yes	FAC																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
20		=Total Cover																		
<b>Herb Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Phragmites australis</u>	30	Yes	FACU																	
3. <u>Equisetum arvense</u>	5	No	FAC																	
4. <u>Phlox paniculata</u>	15	Yes	FACU																	
5. <u>Valeriana officinalis</u>	10	No	UPL																	
6. <u>Impatiens capensis</u>	5	No	FACW																	
7. <u>Tussilago farfara</u>	5	No	FACU																	
8. <u>Artemisia absinthium</u>	5	No	UPL																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
75		=Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. <u>Toxicodendron radicans</u>	10	Yes	FAC	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
10		=Total Cover																		
<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>																				

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

## SOIL

Sampling Point: P7A-B- Wet

[illegible]





**Wetland GP7A-B**



**Wetland GP7A-B - Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE- Package 7A - Concrete Plant - MP 225.4 City/County: Catskill/ Greene Sampling Date: 5/24/22  
 Applicant/Owner: CHPE State: NY Sampling Point: P7A-B- Up  
 Investigator(s): K. Weiskotten, K. Schumacher Section, Township, Range: Town of Catskill  
 Landform (hillside, terrace, etc.): Lake Plains Local relief (concave, convex, none): Concave Slope %: 0  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42°, 10', 17.02"N Long: 73°, 54', 49.86"W Datum:   
 Soil Map Unit Name: Kingsbury and Rhinebeck 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 <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present?	Yes <u></u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u></u> No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u></u> Surface Water (A1) <u></u> Water-Stained Leaves (B9) <u></u> High Water Table (A2) <u></u> Aquatic Fauna (B13) <u></u> Saturation (A3) <u></u> Marl Deposits (B15) <u></u> Water Marks (B1) <u></u> Hydrogen Sulfide Odor (C1) <u></u> Sediment Deposits (B2) <u></u> Oxidized Rhizospheres on Living Roots (C3) <u></u> Drift Deposits (B3) <u></u> Presence of Reduced Iron (C4) <u></u> Algal Mat or Crust (B4) <u></u> Recent Iron Reduction in Tilled Soils (C6) <u></u> Iron Deposits (B5) <u></u> Thin Muck Surface (C7) <u></u> Inundation Visible on Aerial Imagery (B7) <u></u> Other (Explain in Remarks) <u></u> Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> <u></u> Surface Soil Cracks (B6) <u>X</u> Drainage Patterns (B10) <u></u> Moss Trim Lines (B16) <u></u> Dry-Season Water Table (C2) <u></u> Crayfish Burrows (C8) <u></u> Saturation Visible on Aerial Imagery (C9) <u></u> Stunted or Stressed Plants (D1) <u></u> Geomorphic Position (D2) <u></u> Shallow Aquitard (D3) <u></u> Microtopographic Relief (D4) <u></u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u></u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION** – Use scientific names of plants.

 Sampling Point: P7A-B- Up

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus americana</u>	10	Yes	FACU	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>9</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>44.4%</u> (A/B)																
2. <u>Populus deltoides</u>	20	Yes	FAC																	
3. <u>Ulmus americana</u>	10	Yes	FACW																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	40	=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. <u>Rhus typhina</u>	5	Yes	UPL																	
3. <u>Populus deltoides</u>	15	Yes	FAC																	
4. <u>Elaeagnus angustifolia</u>	5	Yes	FACU																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	25	=Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: _____)																				
1. <u>Centaurea stoebe</u>	20	Yes	UPL																	
2. <u>Phragmites australis</u>	10	No	FACW																	
3. <u>Artemisia absinthium</u>	20	Yes	UPL																	
4. <u>Phlox paniculata</u>	10	No	FACU																	
5. <u>Tussilago farfara</u>	10	No	FACU																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	70	=Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. <u>Toxicodendron radicans</u>	10	Yes	FAC	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	10	=Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>																

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

## SOIL

Sampling Point: P7A-B- Up

[illegible]



**Upland GP7A-B**



**Upland GP7A-B- Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE- Package 7A - Concrete Plant - MP 225.4 City/County: Catskill/ Greene Sampling Date: 5/24/22  
 Applicant/Owner: CHPE State: NY Sampling Point: P7A-C- Wet  
 Investigator(s): K. Weiskotten, K. Schumacher Section, Township, Range: Town of Catskill  
 Landform (hillside, terrace, etc.): Lake Plains Local relief (concave, convex, none): Concave Slope %: 0  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42°, 10', 15.55"N Long: 73°, 54', 51.49"W Datum:   
 Soil Map Unit Name: Kingsbury and Rhinebeck NWI classification: PFO  
 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 <u>X</u>	No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>	
Remarks: (Explain alternative procedures here or in a separate report.)			

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u></u> Depth (inches): <u>8</u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u>X</u> No <u></u> Depth (inches): <u>5</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u></u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: P7A-C- Wet

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus pennsylvanica</u>	15	Yes	FACW	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>9</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>90.0%</u> (A/B)
2. <u>Acer negundo</u>	15	Yes	FAC	
3. <u>Ulmus americana</u>	10	No	FACW	
4. <u>Salix nigra</u>	10	No	OBL	
5. <u>Fraxinus americana</u>	5	No	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
55 =Total Cover				
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. <u>Ulmus americana</u>	10	Yes	FACW	<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Acer negundo</u>	5	Yes	FAC	
3. <u>Populus deltoides</u>	5	Yes	FAC	
4. <u>Rhamnus cathartica</u>	5	Yes	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
25 =Total Cover				
<b>Herb Stratum</b> (Plot size: _____)				
1. <u>Typha latifolia</u>	10	Yes	OBL	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Phragmites australis</u>	10	Yes	FACU	
3. <u>Impatiens capensis</u>	5	No	FACW	
4. <u>Lythrum salicaria</u>	10	Yes	OBL	
5. <u>Tussilago farfara</u>	5	No	FACU	
6. <u>Geum aleppicum</u>	5	No	FAC	
7. <u>Artemisia absinthium</u>	5	No	UPL	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
50 =Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. <u>Toxicodendron radicans</u>	5	Yes	FAC	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5 =Total Cover				
<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>				

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



## SOIL

Sampling Point: P7A-C- Wet

[illegible]



**Wetland GP7A-C**



**Wetland GP7A-C- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE- Package 7A - Concrete Plant - MP 225.4 City/County: Catskill/ Greene Sampling Date: 5/24/22  
Applicant/Owner: CHPE State: NY Sampling Point: P7A-C-Up  
Investigator(s): K. Weiskotten, K. Schumacher Section, Township, Range: Town of Catskill  
Landform (hillside, terrace, etc.): Lake Plains Local relief (concave, convex, none): Concave Slope %: 0  
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42°, 10', 15.55"N Long: 73°, 54', 51.49"W Datum: \_\_\_\_\_  
Soil Map Unit Name: Kingsbury and Rhinebeck 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____		
Saturation Present? Yes _____ No <u>X</u>	Depth (inches): _____		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION** – Use scientific names of plants.

 Sampling Point: P7A-C-Up

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus americana</u>	15	Yes	FACU	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>12</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>58.3%</u> (A/B)
2. <u>Acer negundo</u>	15	Yes	FAC	
3. <u>Ulmus americana</u>	10	Yes	FACW	
4. <u>Acer saccharum</u>	10	Yes	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
50 =Total Cover				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. <u>Solidago canadensis</u>	10	Yes	FACU	<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Acer negundo</u>	5	Yes	FAC	
3. <u>Populus deltoides</u>	5	Yes	FAC	
4. <u>Rhamnus cathartica</u>	5	Yes	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
25 =Total Cover				
<b>Herb Stratum (Plot size: _____)</b>				
1. <u>Artemisia absinthium</u>	10	Yes	UPL	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Phragmites australis</u>	10	Yes	FACU	
3. <u>Impatiens capensis</u>	5	No	FACW	
4. <u>Lythrum salicaria</u>	10	Yes	OBL	
5. <u>Tussilago farfara</u>	5	No	FACU	
6. <u>Erigeron strigosus</u>	5	No	FACU	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
45 =Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. <u>Toxicodendron radicans</u>	10	Yes	FAC	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
10 =Total Cover				
<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>				

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

## SOIL

Sampling Point: P7A-C-Up

[illegible]





**Upland GP7A-C**



**Upland GP7A-C- Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE Phase 7 City/County: Catskill Sampling Date: 12/13/21  
 Applicant/Owner: CHA State: NY Sampling Point: JC-8  
 Investigator(s): Nick Dominic/Justin Williams Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope %: \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42.1715 Long: -73.91401 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Wetland JC	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u>X</u> Surface Water (A1) _____ Water-Stained Leaves (B9) <u>X</u> High Water Table (A2) _____ Aquatic Fauna (B13) <u>X</u> Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) <u>X</u> Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ 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)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>2</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	

**VEGETATION** – Use scientific names of plants.

 Sampling Point: JC-8

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Juniperus virginiana</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>20</u>	=Total Cover	<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 60%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>130</u></td> <td>x 2 = <u>260</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>150</u> (A)</td> <td><u>340</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.27</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>130</u>	x 2 = <u>260</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>150</u> (A)	<u>340</u> (B)	Prevalence Index = B/A = <u>2.27</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>130</u>	x 2 = <u>260</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>150</u> (A)	<u>340</u> (B)																			
Prevalence Index = B/A = <u>2.27</u>																				
		<u>40</u>	=Total Cover																	
Sapling/Shrub Stratum (Plot size: <u>15</u> )																				
1. <u>Cornus sericea</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>40</u>	=Total Cover																	
Herb Stratum (Plot size: <u>5</u> )																				
1. <u>Onoclea sensibilis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b>  <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Phragmites australis</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
		<u>90</u>	=Total Cover																	
Woody Vine Stratum (Plot size: <u>30</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		_____	=Total Cover																	
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																				
				<b>Hydrophytic Vegetation Present?</b> Yes <u>  x  </u> No <u>      </u>																
Remarks: (Include photo numbers here or on a separate sheet.)																				

## SOIL

Sampling Point	JC-8
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[illegible]



**Wetland JC- Soils**

**Phase 7**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 7, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-JC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.166586°N Long: 73.916196°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland JC located along abandoned railroad track.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-JC-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Juniperus virginiana</u>	20	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. <u>Rhus typhina</u>	10	Yes	UPL															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>30</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>95</u></td> <td>x 5 = <u>475</u></td> </tr> <tr> <td>Column Totals: <u>130</u> (A)</td> <td><u>600</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.61	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>95</u>	x 5 = <u>475</u>	Column Totals: <u>130</u> (A)	<u>600</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>15</u>	x 3 = <u>45</u>																	
FACU species <u>20</u>	x 4 = <u>80</u>																	
UPL species <u>95</u>	x 5 = <u>475</u>																	
Column Totals: <u>130</u> (A)	<u>600</u> (B)																	
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>0</u> = Total Cover																		
<b>Herb Stratum (Plot size: 5 ft.)</b>																		
1. <u>Apocynum cannabinum</u>	15	No	FAC	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Leucanthemum vulgare</u>	25	Yes	UPL															
3. <u>Centaurea stoebe</u>	60	Yes	UPL															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>100</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																		
1. _____				<b>Hydrophytic Vegetation</b> Present?      Yes <u>    </u> No <u>  X  </u>														
2. _____																		
3. _____																		
4. _____																		
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-JC-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 2

Hydric Soil Present? Yes No **X**

Remarks:

Remarks: Could not dig past 2 inches due to gravel refusal, no hydric soils present at the Data Point.



**Upland JC- View facing North.**

No Photos

**Upland JC Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



**Upland JC- Soils**

**Phase 7**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 6, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TE  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.166905°N Long: 73.914689°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: -

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 <u>X</u> No <u>-</u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>-</u>
Hydric Soil Present?	Yes <u>X</u> No <u>-</u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>-</u>		If yes, optional Wetland Site ID: <u>TE</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located in a depression area in between the railroad and landfill.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>-</u> Surface Water (A1)	<u>-</u> Water-Stained Leaves (B9)	<u>-</u> Surface Soil Cracks (B6)
<u>-</u> High Water Table (A2)	<u>-</u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>-</u> Saturation (A3)	<u>-</u> Marl Deposits (B15)	<u>-</u> Moss Trim Lines (B16)
<u>-</u> Water Marks (B1)	<u>-</u> Hydrogen Sulfide Odor (C1)	<u>-</u> Dry-Season Water Table (C2)
<u>-</u> Sediment Deposits (B2)	<u>-</u> Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Crayfish Burrows (C8)
<u>-</u> Drift Deposits (B3)	<u>-</u> Presence of Reduced Iron (C4)	<u>-</u> Saturation Visible on Aerial Imagery (C9)
<u>-</u> Algal Mat or Crust (B4)	<u>-</u> Recent Iron Reduction in Tilled Soils (C6)	<u>-</u> Stunted or Stressed Plants (D1)
<u>-</u> Iron Deposits (B5)	<u>-</u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>-</u> Inundation Visible on Aerial Imagery (B7)	<u>-</u> Other (Explain in Remarks)	<u>-</u> Shallow Aquitard (D3)
<u>-</u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> Microtopographic Relief (D4)
		<u>-</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>-</u> No <u>X</u> Depth (inches): <u>-</u> Water Table Present? Yes <u>-</u> No <u>X</u> Depth (inches): <u>-</u> Saturation Present? Yes <u>-</u> No <u>X</u> Depth (inches): <u>-</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No <u>-</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology observed at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TE

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>110</u></td> <td>x 2 = <u>220</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>120</u> (A)</td> <td><u>230</u> (B)</td> </tr> </table> Prevalence Index = B/A = 1.91	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>110</u>	x 2 = <u>220</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>120</u> (A)	<u>230</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>10</u>	x 1 = <u>10</u>																	
FACW species <u>110</u>	x 2 = <u>220</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>120</u> (A)	<u>230</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Cornus amomum</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Rhamnus alnifolia</u>	<u>10</u>	<u>Yes</u>	<u>OBL</u>															
3. <u>Diphasiastrum digitatum</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>40</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Phragmites australis</u>	<u>95</u>	<u>Yes</u>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>95</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> Present?      Yes <u>X</u> No      _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Vegetation observed at the Data Point.																		

## SOIL

Sampling Point: DP-TE

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches): 20

Hydric Soil Present?	Yes	X	No
----------------------	-----	---	----

Remarks:

Hydric soil observed at the Data Point.



**PEM Wetland TE- View facing North.**



**PEM Wetland TE- Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: October 7, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-TE-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Convex Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.164965°N Long: 73.916533°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point located within an open grass field, adjacent to access road.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		



**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-TE-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>70</u></td> <td>x 4 = <u>280</u></td> </tr> <tr> <td>UPL species <u>40</u></td> <td>x 5 = <u>200</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>480</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.36	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>70</u>	x 4 = <u>280</u>	UPL species <u>40</u>	x 5 = <u>200</u>	Column Totals: <u>110</u> (A)	<u>480</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>70</u>	x 4 = <u>280</u>																	
UPL species <u>40</u>	x 5 = <u>200</u>																	
Column Totals: <u>110</u> (A)	<u>480</u> (B)																	
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
<b>Herb Stratum (Plot size: 5 ft.)</b>																		
1. <u>Lolium perenne</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Eurybia divaricata</u>	<u>15</u>	<u>No</u>	<u>UPL</u>															
3. <u>Plantago lanceolata</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
4. <u>Daucus carota</u>	<u>10</u>	<u>No</u>	<u>UPL</u>															
5. <u>Centaurea stoebe</u>	<u>15</u>	<u>No</u>	<u>UPL</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>110</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>X</u>														
Remarks: (Include photo numbers here or on a separate sheet.) Vegetation observed at the Data Point.																		

## SOIL

Sampling Point: DP-TE-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 5

Hydric Soil Present? Yes No **X**

Remarks:

Multiple soil pits dug but were only able to reach 5 inches due to compaction. No hydric soils present.



**Upland TE- View facing East.**



**Upland TE Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE Phase 7 City/County: Catskill Sampling Date: 12/13/21  
 Applicant/Owner: CHA State: NY Sampling Point: KC-2  
 Investigator(s): Nick Dominic/Justin Williams Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope %: \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42.16532 Long: -73.91650 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland KC	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u>X</u> Surface Water (A1) _____ Water-Stained Leaves (B9) <u>X</u> High Water Table (A2) _____ Aquatic Fauna (B13) <u>X</u> Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) <u>X</u> Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> _____ 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)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>2</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>5</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: KC-2

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Juniperus virginiana</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>20</u>	=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>130</u></td> <td>x 2 = <u>260</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>150</u> (A)</td> <td><u>340</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.27</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>130</u>	x 2 = <u>260</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>150</u> (A)	<u>340</u> (B)	Prevalence Index = B/A = <u>2.27</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>130</u>	x 2 = <u>260</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>150</u> (A)	<u>340</u> (B)																			
Prevalence Index = B/A = <u>2.27</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				<b>Hydrophytic Vegetation Indicators:</b>  <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Cornus sericea</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	<u>40</u>	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>  x  </u> No <u>      </u>																
1. <u>Onoclea sensibilis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
2. <u>Phragmites australis</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	<u>90</u>	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	_____	=Total Cover																		

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

## SOIL

Sampling Point KC-2

[illegible]





**Wetland KC- View facing South**

**Phase 7**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 7, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-KC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.164785°N Long: 73.916718°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland KC located on top of ridge, adjacent to railroad crossing.			

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
Primary Indicators (minimum of one is required; check all that apply)			
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)	
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)	
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)	
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)	
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)	
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)	
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)	
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)	
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)	
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)	
		<u>      </u> FAC-Neutral Test (D5)	
<b>Field Observations:</b>		<b>Wetland Hydrology Present?</b> Yes <u>      </u> No <u>X</u>	
Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: No wetland hydrology present at the Data Point.			

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-KC-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status																
1. <u>Rhus typhina</u>	35	Yes	UPL	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)															
2. <u>Ulmus americana</u>	10	Yes	FACW																
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
	45	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>115</u></td> <td>x 4 = <u>460</u></td> </tr> <tr> <td>UPL species <u>35</u></td> <td>x 5 = <u>175</u></td> </tr> <tr> <td>Column Totals: <u>160</u> (A)</td> <td><u>655</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.09		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>115</u>	x 4 = <u>460</u>	UPL species <u>35</u>	x 5 = <u>175</u>	Column Totals: <u>160</u> (A)	<u>655</u> (B)
Total % Cover of:	Multiply by:																		
OBL species <u>0</u>	x 1 = <u>0</u>																		
FACW species <u>10</u>	x 2 = <u>20</u>																		
FAC species <u>0</u>	x 3 = <u>0</u>																		
FACU species <u>115</u>	x 4 = <u>460</u>																		
UPL species <u>35</u>	x 5 = <u>175</u>																		
Column Totals: <u>160</u> (A)	<u>655</u> (B)																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																			
1. <u>Lonicera morrowii</u>	15	Yes	FACU																
2. _____																			
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
	15	= Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
<b>Herb Stratum (Plot size: 5 ft.)</b>																			
1. <u>Ambrosia artemisiifolia</u>	45	Yes	FACU																
2. <u>Alliaria petiolata</u>	25	Yes	FACU																
3. <u>Trifolium repens</u>	15	No	FACU																
4. <u>Rubus idaeus</u>	15	No	FACU																
5. _____																			
6. _____																			
7. _____																			
8. _____																			
9. _____																			
10. _____																			
11. _____																			
12. _____																			
	100	= Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.															
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																			
1. _____																			
2. _____																			
3. _____																			
4. _____																			
	0	= Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>															

## Upland

Upland

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

- \_\_\_ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- \_\_\_ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- \_\_\_ 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)

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<b>Restrictive Layer (if observed):</b> Type: <u>Compaction</u> Depth (inches): 3	Hydric Soil Present? Yes <u>      </u> No <u><b>X</b></u>
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Remarks:  
Could not dig past 3 inches due to gravel refusal, no hydric soils present at the Data Point.





**Upland KC- View facing North.**



**Upland KC Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE- Package 7A - FS Area 13 - MP 226.3 City/County: Catskill/ Greene Sampling Date: 1/24/23  
 Applicant/Owner: CHPE State: NY Sampling Point: P7A-13- Wet  
 Investigator(s): K. Weiskotten Section, Township, Range: Town of Catskill  
 Landform (hillside, terrace, etc.): Lake Plains Local relief (concave, convex, none): Concave Slope %: 0  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42° 09' 50.14"N Long: 73° 54' 59.86"W Datum:   
 Soil Map Unit Name: Kingsbury and Rhinebeck NWI classification: PSS  
 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 <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 1px solid red; padding: 5px; width: fit-content;">PSS portion of Wetland KC.</div>		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) ___ High Water Table (A2) ___ Aquatic Fauna (B13) <u>X</u> Saturation (A3) ___ Marl Deposits (B15) ___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5) ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> ___ 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) <u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes ___ No <u>X</u> Depth (inches): ___ Water Table Present? Yes ___ No <u>X</u> Depth (inches): ___ Saturation Present? Yes <u>X</u> No ___ Depth (inches): <u>10</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No ___
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION** – Use scientific names of plants.

 Sampling Point: P7A-13- Wet

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Populus deltoides</u>	15	Yes	FAC	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>10</u> (A)  Total Number of Dominant Species Across All Strata: <u>12</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.3%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
2. <u>Ulmus americana</u>	5	Yes	FACW																	
3. <u>Juniperus virginiana</u>	5	Yes	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	25	=Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: _____)</b>																				
1. <u>Viburnum recognitum</u>	15	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Cornus amomum</u>	20	Yes	FACW																	
3. <u>Populus deltoides</u>	5	No	FAC																	
4. <u>Lonicera tatarica</u>	5	No	FACU																	
5. _____																				
6. _____																				
7. _____																				
	45	=Total Cover																		
<b>Herb Stratum (Plot size: _____)</b>																				
1. <u>Lythrum salicaria</u>	10	Yes	OBL	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>																
2. <u>Symphyotrichum novae-angliae</u>	5	Yes	FACW																	
3. <u>Solidago canadensis</u>	5	Yes	FACU																	
4. <u>Rudbeckia laciniata</u>	10	Yes	FACW																	
5. <u>Lysimachia nummularia</u>	5	Yes	FACW																	
6. <u>Poa palustris</u>	5	Yes	FACW																	
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	40	=Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. <u>Vitis riparia</u>	10	Yes	FAC																	
2. _____																				
3. _____																				
4. _____																				
	10	=Total Cover																		

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

## SOIL

Sampling Point: P7A-13- Wet

[illegible]



**Wetland GP7A - Area 13**



**Wetland GP7A - Area 13 - Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE- Package 7A - FS Area 13 - MP 226.3 City/County: Catskill/ Greene Sampling Date: 1/24/23  
Applicant/Owner: CHPE State: NY Sampling Point: P7A-13-Up  
Investigator(s): K. Weiskotten Section, Township, Range: Town of Catskill  
Landform (hillside, terrace, etc.): Lake Plains Local relief (concave, convex, none): Concave Slope %: 0  
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42° 09' 50.14"N Long: 73° 54' 59.86"W Datum: \_\_\_\_\_  
Soil Map Unit Name: Kingsbury and Rhinebeck 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 2px solid red; padding: 5px; margin: 10px 0;">Upland data point for PSS portion of Wetland KC.</div>	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>	
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____		
Saturation Present? Yes _____ No <u>X</u>	Depth (inches): _____ (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION** – Use scientific names of plants.

 Sampling Point: P7A-13-Up

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus americana</u>	25	Yes	FACU	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)																
2. <u>Juniperus virginiana</u>	25	Yes	FACU																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	50	=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. <u>Rhamnus cathartica</u>	20	Yes	FAC																	
2. <u>Fraxinus americana</u>	5	No	FACU																	
3. <u>Lonicera tatarica</u>	15	Yes	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	40	=Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: _____)																				
1. <u>Fragaria virginiana</u>	5	Yes	FACU																	
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	5	=Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. <u>Toxicodendron radicans</u>	5	Yes	FAC	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____																				
3. _____																				
4. _____																				
	5	=Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>																

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



## SOIL

Sampling Point: P7A-13-Up

[illegible]



**Upland GP7A – Area 13**



**Upland GP7A -Area 13 - Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 24, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GG  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.163531°N Long: 73.918053°W Datum: NAD83  
 Soil Map Unit Name: KrB - Kingsbury and Rhinebeck soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>GG</u>
Remarks: (Explain alternative procedures here or in a separate report.) PSS Wetland located in a depression within scrub shrub area at the bottom of a gentle hillslope.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)	
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)	
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)	
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)	
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)	
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)	
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Stunted or Stressed Plants (D1)	
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)	
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)	
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> Microtopographic Relief (D4)	
		<u>      </u> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Wetland hydrology present at the Data Point.			

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GG

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>60</u></td> <td>x 3 = <u>180</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>160</u> (A)</td> <td><u>420</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.62	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>60</u>	x 3 = <u>180</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>160</u> (A)	<u>420</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>80</u>	x 2 = <u>160</u>																	
FAC species <u>60</u>	x 3 = <u>180</u>																	
FACU species <u>20</u>	x 4 = <u>80</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>160</u> (A)	<u>420</u> (B)																	
1. <u>Frangula alnus</u>	<u>35</u>	<u>Yes</u>	<u>FAC</u>															
2. <u>Cornus racemosa</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>60</u> = Total Cover																		
<b>Herb Stratum (Plot size: 5 ft.)</b>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Equisetum pratense</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Phragmites australis</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>															
3. <u>Solidago canadensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
4. <u>Parthenocissus quinquefolia</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No      _____														

## SOIL

Sampling Point: DP-GG

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Wetland hydrology present at the Data Point.





**PSS Wetland GG- View facing South.**



**PEM Wetland GG- Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 24, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GG-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.163795°N Long: 73.917972°W Datum: NAD83  
 Soil Map Unit Name: KrB- Kingsbury and Rhinebeck soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	
If yes, optional Wetland Site ID: <u>      </u>		
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland GG located on edge of access road within a grass area.		

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
Field Observations:		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GG-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Lolium perenne</u>	<u>90</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Trifolium repens</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
No hydrophytic vegetation found at the Data Point.																		

## Upland

Upland

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> <b>MLRA 149B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> )
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> )	

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<b>Restrictive Layer (if observed):</b> Type: <u>Compaction</u> Depth (inches): 3	Hydric Soil Present? Yes <u>      </u> No <u>X</u>
---	--

Remarks:  
No hydric soils present at the Data Point, could not dig past 3 inches due to gravel refusal.



**Upland GG- View facing North.**



**Upland GG- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE- Package 7A - FS Area 14 - MP 226.6 City/County: Catskill/ Greene Sampling Date: 1/24/23  
 Applicant/Owner: CHPE State: NY Sampling Point: P7A-14-Wet  
 Investigator(s): K. Weiskotten Section, Township, Range: Town of Catskill  
 Landform (hillside, terrace, etc.): Lake Plains Local relief (concave, convex, none): Concave Slope %: 0  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42°09',33.48"N Long: 73°55',05.15"W Datum:   
 Soil Map Unit Name: Kingsbury and Rhinebeck NWI classification: PEM  
 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 <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> If yes, optional Wetland Site ID: <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 1px solid red; padding: 5px; margin: 10px 0;"> <b>PEM portion of Wetland KC.</b> </div>		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u>X</u> Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) <u></u> High Water Table (A2) <u></u> Aquatic Fauna (B13) <u>X</u> Saturation (A3) <u></u> Marl Deposits (B15) <u>X</u> Water Marks (B1) <u></u> Hydrogen Sulfide Odor (C1) <u></u> Sediment Deposits (B2) <u></u> Oxidized Rhizospheres on Living Roots (C3) <u></u> Drift Deposits (B3) <u></u> Presence of Reduced Iron (C4) <u></u> Algal Mat or Crust (B4) <u></u> Recent Iron Reduction in Tilled Soils (C6) <u></u> Iron Deposits (B5) <u></u> Thin Muck Surface (C7) <u></u> Inundation Visible on Aerial Imagery (B7) <u></u> Other (Explain in Remarks) <u></u> Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> <u></u> Surface Soil Cracks (B6) <u>X</u> Drainage Patterns (B10) <u></u> Moss Trim Lines (B16) <u></u> Dry-Season Water Table (C2) <u></u> Crayfish Burrows (C8) <u></u> Saturation Visible on Aerial Imagery (C9) <u></u> Stunted or Stressed Plants (D1) <u></u> Geomorphic Position (D2) <u></u> Shallow Aquitard (D3) <u></u> Microtopographic Relief (D4) <u></u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u></u> Depth (inches): <u>3</u> Water Table Present? Yes <u></u> No <u>X</u> Depth (inches): <u></u> Saturation Present? Yes <u>X</u> No <u></u> Depth (inches): <u>6</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u></u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION** – Use scientific names of plants.

 Sampling Point: P7A-14-Wet

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus americana</u>	5	No	FACU	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>62.5%</u> (A/B)																
2. <u>Acer negundo</u>	5	No	FAC																	
3. <u>Juniperus virginiana</u>	10	Yes	FACU																	
4. <u>Populus deltoides</u>	10	Yes	FAC																	
5. _____																				
6. _____																				
7. _____																				
	30	=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. <u>Cornus amomum</u>	5	Yes	FACW																	
2. <u>Acer negundo</u>	5	Yes	FAC																	
3. <u>Populus deltoides</u>	5	Yes	FAC																	
4. <u>Lonicera tatarica</u>	10	Yes	FACU																	
5. _____																				
6. _____																				
7. _____																				
	25	=Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: _____)																				
1. <u>Lythrum salicaria</u>	10	No	OBL																	
2. _____																				
3. <u>Phragmites australis</u>	80	Yes	FACW																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	90	=Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
Woody Vine Stratum (Plot size: _____)																				
1. <u>Celastrus orbiculatus</u>	5	Yes	UPL																	
2. _____																				
3. _____																				
4. _____																				
	5	=Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>																

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



## SOIL

Sampling Point: P7A-14-Wet

[illegible]



**Wetland GP7A - Area 14**



**Wetland GP7A - Area 14 - Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE- Package 7A - FS Area 14 - MP 226.6 City/County: Catskill/ Greene Sampling Date: 1/24/23  
 Applicant/Owner: CHPE State: NY Sampling Point: P7A-14-Up  
 Investigator(s): K. Weiskotten Section, Township, Range: Town of Catskill  
 Landform (hillside, terrace, etc.): Lake Plains Local relief (concave, convex, none): Concave Slope %: 0  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 42° 09' 33.48"N Long: 73° 55' 05.15"W Datum: \_\_\_\_\_  
 Soil Map Unit Name: Kingsbury and Rhinebeck 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 2px solid red; padding: 5px; margin: 10px 0;">           Upland data point for PEM portion of Wetland KC.         </div>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> _____ 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)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: P7A-14-Up

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus americana</u>	10	Yes	FACU	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>14.3%</u> (A/B)																
2. <u>Populus deltoides</u>	10	Yes	FAC																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	20	=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. <u>Lonicera tatarica</u>	20	Yes	FACU																	
2. <u>Elaeagnus umbellata</u>	15	Yes	UPL																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	35	=Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: _____)																				
1. <u>Artemisia absinthium</u>	25	Yes	UPL																	
2. <u>Phragmites australis</u>	10	No	FACW																	
3. <u>Solidago canadensis</u>	20	Yes	FACU																	
4. <u>Galium trifidum</u>	5	No	FACW																	
5. <u>Dipsacus fullonum</u>	5	No	FACU																	
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	65	=Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. <u>Celastrus orbiculatus</u>	5	Yes	UPL	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____																				
3. _____																				
4. _____																				
	5	=Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>																

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

## SOIL

Sampling Point: P7A-14-Up

[illegible]



**Upland GP7A – Area 14**



**Upland GP7A -Area 14 - Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 24, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GJ  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.158558°N Long: 73.918147°W Datum: NAD83  
 Soil Map Unit Name: HvC- Hudson and Vergennes soils, 8 to 15 percent slopes NWI classification: Not Mapped

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 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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>GJ</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located in a depression within a Phragmites stand, Wetland extends outside of the Project Study Limits.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)	
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)	
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)	
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)	
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)	
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)	
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Stunted or Stressed Plants (D1)	
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)	
<u>X</u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)	
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)	
		<u>      </u> FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	
Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches):			
Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches):			
Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): (includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Wetland hydrology present at the Data Point.			

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GJ

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Populus deltoides</u>	15	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>15</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>245</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.13	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>115</u> (A)	<u>245</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>100</u>	x 2 = <u>200</u>																	
FAC species <u>15</u>	x 3 = <u>45</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>115</u> (A)	<u>245</u> (B)																	
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u> X </u> 2 - Dominance Test is >50% <u> X </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Phragmites australis</u>	100	Yes	FACW															
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u> X </u> No      _____														

## SOIL

Sampling Point: DP-GJ

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Dark gravel soils, no redox. Hydric soils present at the Data Point.



**PEM Wetland GJ- View facing South.**



**PEM Wetland GJ- Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: August 24, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-GJ-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.158649°N Long: 73.918290°W Datum: NAD83  
 Soil Map Unit Name: HvC-Hudson and Vergennes soils, 8 to 15 percent slopes NWI classification: Not Mapped

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 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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	
If yes, optional Wetland Site ID: <u>      </u>		
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point located adjacent to access road.		

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>X</u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-GJ-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>35</u></td> <td>x 5 = <u>175</u></td> </tr> <tr> <td>Column Totals: <u>55</u> (A)</td> <td><u>255</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4.63	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>35</u>	x 5 = <u>175</u>	Column Totals: <u>55</u> (A)	<u>255</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>20</u>	x 4 = <u>80</u>																	
UPL species <u>35</u>	x 5 = <u>175</u>																	
Column Totals: <u>55</u> (A)	<u>255</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Daucus carota</u>	<u>15</u>	<u>Yes</u>	<u>UPL</u>															
2. <u>Centaurea stoebe</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>															
3. <u>Achillea millefolium</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>55</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																		



## SOIL

Sampling Point: DP-GJ-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 5

Hydric Soil Present? Yes No **X**

Remarks:

Remarks: Could not dig past 5 inches due to compaction of gravel, no hydric soils present at the Data Point.



**Upland GJ- View facing North.**



**Upland GJ- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 6, 2022

Applicant/Owner: CHA State: NY Sampling Point: DP-LC-PEM

Investigator(s): Tristen Peterson Section, Township, Range: Catskill

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR R Lat: 42.153924°N Long: 73.920013°W Datum: NAD83

Soil Map Unit Name: - Hudson and Vergennes silty clay loams, 15 to 25 percent slopes, severely eroded NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>LC</u>

Remarks: (Explain alternative procedures here or in a separate report.)  
PEM Wetland located within a depression adjacent to access road.

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>      </u> No <u>X</u>
--	---

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

Remarks:  
Wetland hydrology present at the Data Point.

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-LC-PEM

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>65</u></td> <td>x 2 = <u>130</u></td> </tr> <tr> <td>FAC species <u>60</u></td> <td>x 3 = <u>180</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>165</u> (A)</td> <td><u>470</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.84	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>65</u>	x 2 = <u>130</u>	FAC species <u>60</u>	x 3 = <u>180</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>165</u> (A)	<u>470</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>65</u>	x 2 = <u>130</u>																	
FAC species <u>60</u>	x 3 = <u>180</u>																	
FACU species <u>40</u>	x 4 = <u>160</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>165</u> (A)	<u>470</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Frangula alnus</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>30</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Phragmites australis</u>	<u>65</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Ambrosia artemisiifolia</u>	<u>20</u>	<u>No</u>	<u>FACU</u>															
3. <u>Parthenocissus quinquefolia</u>	<u>20</u>	<u>No</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
<u>105</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. <u>Vitis riparia</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>30</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-LC-PEM

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input checked="" type="checkbox"/> <b>X</b> Redox Dark Surface (F6)       |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 6

Hydric Soil Present?	Yes	X	No
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Remarks:

Remarks:  
Could not dig past 6 inches due to compaction, hydric soils present at the Data Point.





**PEM Wetland LC- View facing South.**



**PEM Wetland LC- Soils**

## **SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 6, 2022

Applicant/Owner: CHA State: NY Sampling Point: DP-LC-PFO

Investigator(s): Tristen Peterson Section, Township, Range: Catskill

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): LRR R Lat: 42.154323°N Long: 73.919875°W Datum: NAD83

Soil Map Unit Name: - Hudson and Vergennes silty clay loams, 15 to 25 percent slopes, severely eroded NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	

If yes, optional Wetland Site ID: LC

Remarks: (Explain alternative procedures here or in a separate report.)  
PFO Wetland located within small, forested area adjacent to access road.

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>      </u> No <u>X</u>
--	---

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

Remarks:  
Wetland hydrology present at the Data Point.

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-LC-PFO

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status																
1. <u>Juniperus virginiana</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)															
2. _____	_____	_____	_____																
3. _____	_____	_____	_____																
4. _____	_____	_____	_____																
5. _____	_____	_____	_____																
6. _____	_____	_____	_____																
7. _____	_____	_____	_____																
		<u>15</u> = Total Cover																	
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																			
1. <u>Frangula alnus</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>50</u></td> <td>x 3 = <u>150</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>250</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.77		Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>50</u>	x 3 = <u>150</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>250</u> (B)
Total % Cover of:	Multiply by:																		
OBL species <u>10</u>	x 1 = <u>10</u>																		
FACW species <u>15</u>	x 2 = <u>30</u>																		
FAC species <u>50</u>	x 3 = <u>150</u>																		
FACU species <u>15</u>	x 4 = <u>60</u>																		
UPL species <u>0</u>	x 5 = <u>0</u>																		
Column Totals: <u>90</u> (A)	<u>250</u> (B)																		
2. _____	_____	_____	_____																
3. _____	_____	_____	_____																
4. _____	_____	_____	_____																
5. _____	_____	_____	_____																
6. _____	_____	_____	_____																
7. _____	_____	_____	_____																
		<u>20</u> = Total Cover																	
<b>Herb Stratum (Plot size: 5 ft.)</b>																			
1. <u>Symplocarpus foetidus</u>	<u>10</u>	<u>No</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
2. <u>Toxicodendron radicans</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>																
3. <u>Phragmites australis</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>																
4. _____	_____	_____	_____																
5. _____	_____	_____	_____																
6. _____	_____	_____	_____																
7. _____	_____	_____	_____																
8. _____	_____	_____	_____																
9. _____	_____	_____	_____																
10. _____	_____	_____	_____																
11. _____	_____	_____	_____																
12. _____	_____	_____	_____																
		<u>55</u> = Total Cover																	
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																			
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> Present?      Yes <u>X</u> No      _____															
2. _____	_____	_____	_____																
3. _____	_____	_____	_____																
4. _____	_____	_____	_____																
		<u>0</u> = Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																			

## SOIL

Sampling Point: DP-LC-PFO

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 5

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point, could not dig past 5 inches due to compaction.



**PFO Wetland LC- View facing North.**



**PFO Wetland LC- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 6, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-LC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.154343°N Long: 73.919994°W Datum: NAD83  
 Soil Map Unit Name: - Hudson and Vergennes silty clay loams, 15 to 25 percent slopes, severely eroded NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	
If yes, optional Wetland Site ID: <u>      </u>		
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for PFO Wetland LC located within open shrub area adjacent to the access road.		

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		



**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-LC-Upland

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Ambrosia artemisiifolia</u>	<u>90</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Solidago canadensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
No hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-LC-Upland

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 6

Hydric Soil Present? Yes No **X**

Remarks:

Remarks:  
Could not dig past 6 inches due to compaction, no hydric soils present at the Data Point.



**Upland LC- View facing North.**



**Upland LC Soils**

**SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 6, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-MC  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.152129°N Long: 73.920631°W Datum: NAD83  
 Soil Map Unit Name: - Hudson and Vergennes soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>MC</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located within a depression adjacent to access road, Wetland MC is in a Phragmites stand.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)	
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)	
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)	
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)	
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)	
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)	
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Stunted or Stressed Plants (D1)	
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)	
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)	
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)	
		<u>      </u> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>8</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Wetland hydrology present at the Data Point.			

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-MC

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>85</u></td> <td>x 2 = <u>170</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>230</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.3	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>85</u>	x 2 = <u>170</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>230</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>85</u>	x 2 = <u>170</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>15</u>	x 4 = <u>60</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>230</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Phragmites australis</u>	<u>85</u>	<u>Yes</u>	<u>FACW</u>															
2. <u>Solidago canadensis</u>	<u>15</u>	<u>No</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														



## SOIL

Sampling Point: DP-MC

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.



**PEM Wetland MC- View facing South.**



**PEM Wetland MC- Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 6, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-MC-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.152143°N Long: 73.920515°W Datum: NAD83  
 Soil Map Unit Name: - Hudson and Vergennes soils, 3 to 8 percent slopes NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland MC located adjacent to access road and grass area.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-MC-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Lolium perenne</u>	<u>70</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Trifolium repens</u>	<u>15</u>	<u>No</u>	<u>FACU</u>															
3. <u>Dactylis glomerata</u>	<u>15</u>	<u>No</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
No hydrophytic vegetation found at the Data Point.																		

Upland

Sampling Point: DP-MC-

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> <b>MLRA 149B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> )
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> )	

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches):

Hydric Soil Present? Yes No **X**

Remarks:

Remarks:  
Could not dig past 2 inches due to compaction, no hydric soils present at the Data Point.





**Upland MC- View facing North**



**Upland MC Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 9, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-O1  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.151069°N Long: 73.920750°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>      </u>		If yes, optional Wetland Site ID: <u>O1</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located within a depression adjacent to bridge, Wetland is within a phragmites stand and shrub area.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>7</u> Saturation Present? Yes <u>X</u> No <u>      </u> Depth (inches): <u>2</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-01

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>25</u></td> <td>x 3 = <u>75</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>275</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.2	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>25</u>	x 3 = <u>75</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>275</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>100</u>	x 2 = <u>200</u>																	
FAC species <u>25</u>	x 3 = <u>75</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>125</u> (A)	<u>275</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. <u>Cornus racemosa</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>15</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Phragmites australis</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. <u>Vitis riparia</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>10</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-O1

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                                 | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) |
| <input type="checkbox"/> Histic Epipedon (A2)                          | <input type="checkbox"/> <b>Thin Dark Surface (S9) (LRR R, MLRA 149B)</b>         |
| <input type="checkbox"/> Black Histic (A3)                             | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                         | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 |
| <input type="checkbox"/> Stratified Layers (A5)                        | <input type="checkbox"/> Depleted Matrix (F3)                                     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)             | <input type="checkbox"/> Redox Dark Surface (F6)                                  |
| <input type="checkbox"/> Thick Dark Surface (A12)                      | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)                    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                      | <input type="checkbox"/> Redox Depressions (F8)                                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                      |   |
| <input type="checkbox"/> Sandy Redox (S5)                              |   |
| <input type="checkbox"/> Stripped Matrix (S6)                          |   |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> ) |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
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Remarks:

Hydric soils present at the Data Point.





**PEM Wetland O1- View facing North.**



**PEM Wetland O1- Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 10, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-O1-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.151155°N Long: 73.920774°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland O1 located adjacent to an open area adjacent to road shoulder.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-O1-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>40</u> (A)</td> <td><u>160</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>40</u> (A)	<u>160</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>40</u>	x 4 = <u>160</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>40</u> (A)	<u>160</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Poa pratensis</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>40</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-O1-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 8

Hydric Soil Present? Yes No **X**

Remarks:

Could not dig past 8 inches due to rock refusal, dark soils due to area adjacent to road, no hydric soils present at the Data Point.



**Upland O1- View facing North.**



**Upland O1 Soils**

**SITE PHOTOGRAPHS**

**Segment 11 – Package 7A**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 10, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: P-1  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.145764°N Long: 73.913271°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>F</u>
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located within a depression adjacent to Alpha Road.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches):		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches):		
Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present at the Data Point.		



**VEGETATION – Use scientific names of plants.**

Sampling Point: **P-1**

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status																
1. _____	_____	_____	_____																
2. _____	_____	_____	_____																
3. _____	_____	_____	_____																
4. _____	_____	_____	_____																
5. _____	_____	_____	_____																
6. _____	_____	_____	_____																
7. _____	_____	_____	_____																
	0	= Total Cover																	
<b>Sapling/Shrub Stratum (Plot size: 15 ft.)</b>																			
1. <u>Cornus racemosa</u>	20	Yes	FAC																
2. _____	_____	_____	_____																
3. _____	_____	_____	_____																
4. _____	_____	_____	_____																
5. _____	_____	_____	_____																
6. _____	_____	_____	_____																
7. _____	_____	_____	_____																
	20	= Total Cover																	
<b>Herb Stratum (Plot size: 5 ft.)</b>																			
1. <u>Phragmites australis</u>	70	Yes	FACW																
2. <u>Ambrosia artemisiifolia</u>	20	Yes	FACU																
3. <u>Parthenocissus quinquefolia</u>	10	No	FACU																
4. _____	_____	_____	_____																
5. _____	_____	_____	_____																
6. _____	_____	_____	_____																
7. _____	_____	_____	_____																
8. _____	_____	_____	_____																
9. _____	_____	_____	_____																
10. _____	_____	_____	_____																
11. _____	_____	_____	_____																
12. _____	_____	_____	_____																
	100	= Total Cover																	
<b>Woody Vine Stratum (Plot size: 30 ft.)</b>																			
1. <u>Vitis riparia</u>	20	Yes	FAC																
2. _____	_____	_____	_____																
3. _____	_____	_____	_____																
4. _____	_____	_____	_____																
	20	= Total Cover																	
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b> Hydrophytic vegetation found at the Data Point.				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)															
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>140</u></td> <td>(A) <u>380</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2.71		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>140</u>	(A) <u>380</u> (B)
Total % Cover of:	Multiply by:																		
OBL species <u>0</u>	x 1 = <u>0</u>																		
FACW species <u>70</u>	x 2 = <u>140</u>																		
FAC species <u>40</u>	x 3 = <u>120</u>																		
FACU species <u>30</u>	x 4 = <u>120</u>																		
UPL species <u>0</u>	x 5 = <u>0</u>																		
Column Totals: <u>140</u>	(A) <u>380</u> (B)																		
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>															

## SOIL

Sampling Point:

P-1

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L)</b>       |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input checked="" type="checkbox"/> Depleted Dark Surface (F7)             |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)  
☐ Dark Surface (S7) (LRR K, L, M)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soils present at the Data Point.



**PEM Wetland P1- View facing North.**



**PEM Wetland P-1- Soils**

**Segment 11 – Package 7A**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 10, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: -Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.145712°N Long: 73.913309°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland located along the road shoulder and shrub area.			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP--Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Ambrosia artemisiifolia</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Poa pratensis</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>															
3. <u>Trifolium repens</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
4. <u>Solidago canadensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>X</u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
No hydrophytic vegetation found at the Data Point.																		



## SOIL

Sampling Point: DP-F-Upland

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 13

Hydric Soil Present? Yes No **X**

Remarks:

Remarks:  
No hydric soils present at the Data Point, dark soils found at the Data Point due to being adjacent to the shoulder of road.



**Upland P1- View facing North**



**Upland P-1 Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 10, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-E  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.145470°N Long: 73.912548°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> If yes, optional Wetland Site ID: <u>E</u>
Hydric Soil Present?	Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) PEM Wetland located within a depression in Phragmites stand adjacent to an open grass area.		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
Primary Indicators (minimum of one is required; check all that apply)			
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)	
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)	
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)	
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)	
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)	
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)	
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)	
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)	
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)	
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)	
		<u>X</u> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches):		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	
Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches):			
Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): (includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: No wetland hydrology present at the Data Point.			

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-E

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>200</u> (B)</td> </tr> </table> Prevalence Index = B/A = 2	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>200</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>100</u>	x 2 = <u>200</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>200</u> (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft.)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)																		
1. <u>Phragmites australis</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No      _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
Hydrophytic vegetation found at the Data Point.																		

## SOIL

Sampling Point: DP-E

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input checked="" type="checkbox"/> <b>X</b> Redox Dark Surface (F6)       |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: None

Depth (inches):

Hydric Soil Present?	Yes	X	No
----------------------	-----	---	----

Remarks:

Hydric soils present at the Data Point.





**PEM Wetland E- View facing North.**



**PEM Wetland E- Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Champlain Hudson Express City/County: Greene Sampling Date: June 10, 2022  
 Applicant/Owner: CHA State: NY Sampling Point: DP-E-Upland  
 Investigator(s): Tristen Peterson Section, Township, Range: Catskill  
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.145440°N Long: 73.912560°W Datum: NAD83  
 Soil Map Unit Name: - NWI classification: Not Mapped

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 <u>      </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>      </u> No <u>X</u>		If yes, optional Wetland Site ID: <u>      </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland Data Point for Wetland E located within open grass area			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Surface Soil Cracks (B6)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> Microtopographic Relief (D4)
		<u>      </u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Water Table Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> Saturation Present? Yes <u>      </u> No <u>X</u> Depth (inches): <u>      </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology present at the Data Point.		

**VEGETATION – Use scientific names of plants.**

 Sampling Point: DP-E-Upland

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: 15 ft.)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = 4	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: 5 ft.)				<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Poa pratensis</u>	<u>80</u>	<u>Yes</u>	<u>FACU</u>															
2. <u>Trifolium repens</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30 ft.)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation found at the Data Point.				<b>Hydrophytic Vegetation Present?</b> <table style="width: 100%;"> <tr> <td style="width: 33%;">Yes</td> <td style="width: 33%; text-align: center;">_____ No</td> <td style="width: 33%; text-align: center;">_____ <b>X</b></td> </tr> </table>	Yes	_____ No	_____ <b>X</b>											
Yes	_____ No	_____ <b>X</b>																

## SOIL

Sampling Point: DP-E-Upland

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

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R</b> ,     |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <b>MLRA 149B)</b>  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )      |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)            | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> Redox Depressions (F8)                            |
| <input type="checkbox"/> Sandy Redox (S5)                             |  |
| <input type="checkbox"/> Stripped Matrix (S6)                         |  |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B)</b> |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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**)  
☐ Dark Surface (S7) (**LRR K, L, M**)  
☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 6

Hydric Soil Present? Yes No **X**

Remarks:

Remarks: Could not dig past 6 inches due to gravel refusal, no hydric soils present at the Data Point.





**Upland E- View facing South.**



**Upland E Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**



<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 9/30/2022

Applicant/Owner: TDI State: NY Sampling Point: Wet\_7A-Y-7

Investigator(s): C. Scrivner & K. Shumacher Section, Township, Range: \_\_\_\_\_

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %: 3

Subregion (LRR or MLRA): LRR R Lat: 42.14481°N Long: -73.90852°W Datum: WGS84

Soil Map Unit Name: Mh - Medisaprists-Hydraquents, tidal marsh NWI classification: PEM1

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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>Near flag 7A-Y-7</u>
Remarks: (Explain alternative procedures here or in a separate report.) Palustrine emergent marsh dominated by common reed.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
_____ Surface Water (A1)      _____ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)      _____ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3)      _____ Marl Deposits (B15) _____ Water Marks (B1) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2)      _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3)      _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4)      _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5)      _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7)      _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)		_____ 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) <input checked="" type="checkbox"/> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>5</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: Wet\_7A-Y-7

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.3%</u> (A/B)																
2. <u>Populus deltoides</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>15</u>	=Total Cover	<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>115</u></td> <td>x 2 = <u>230</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>265</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.12</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>115</u>	x 2 = <u>230</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>265</u> (B)	Prevalence Index = B/A = <u>2.12</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>115</u>	x 2 = <u>230</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>125</u> (A)	<u>265</u> (B)																			
Prevalence Index = B/A = <u>2.12</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )																				
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>5</u>	=Total Cover																	
Herb Stratum (Plot size: <u>5'</u> )																				
1. <u>Phragmites australis</u>	<u>70</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b>  <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup>  <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>        </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Lysimachia nummularia</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Pilea pumila</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
4. <u>Impatiens capensis</u>	<u>3</u>	<u>No</u>	<u>FACW</u>																	
5. <u>Bidens frondosa</u>	<u>2</u>	<u>No</u>	<u>FACW</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
		<u>100</u>	=Total Cover																	
Woody Vine Stratum (Plot size: <u>30'</u> )																				
1. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		<u>5</u>	=Total Cover																	

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

## SOIL

Sampling Point: Wet\_7A-Y-7

[illegible]



**Wetland 7A-Y - View facing north**



**Wetland 7A-Y - Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 9/30/2022

Applicant/Owner: TDI State: NY Sampling Point: Wet\_7A-Y-2

Investigator(s): C. Scrivner & K. Shumacher Section, Township, Range: \_\_\_\_\_

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %: 2

Subregion (LRR or MLRA): LRR R Lat: 42.14504°N Long: -73.90798°W Datum: WGS84

Soil Map Unit Name: Ur - Udorthents, loamy NWI classification: PFO1

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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>Near flag 7A-Y-2</u>
Remarks: (Explain alternative procedures here or in a separate report.) Palustrine forested wetland. Hardwood swamp.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input checked="" type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>		<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <table style="width: 100%; border: none;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input checked="" type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input checked="" type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)																																
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																																
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																																
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																																
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																																
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																																
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<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																																
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																																
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																																	
<input type="checkbox"/> Surface Soil Cracks (B6)																																	
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<input checked="" type="checkbox"/> Geomorphic Position (D2)																																	
<input type="checkbox"/> Shallow Aquitard (D3)																																	
<input type="checkbox"/> Microtopographic Relief (D4)																																	
<input type="checkbox"/> FAC-Neutral Test (D5)																																	
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____																																
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																	
Remarks:																																	



**VEGETATION** – Use scientific names of plants.

 Sampling Point: Wet\_7A-Y-2

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Populus deltoides</u>	<u>55</u>	<u>Yes</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71.4%</u> (A/B)																
2. <u>Acer negundo</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>80</u> =Total Cover																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u>Viburnum cassinoides</u>	<u>35</u>	<u>Yes</u>	<u>FACW</u>	<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>45</u></td> <td>x 2 = <u>90</u></td> </tr> <tr> <td>FAC species <u>100</u></td> <td>x 3 = <u>300</u></td> </tr> <tr> <td>FACU species <u>18</u></td> <td>x 4 = <u>72</u></td> </tr> <tr> <td>UPL species <u>20</u></td> <td>x 5 = <u>100</u></td> </tr> <tr> <td>Column Totals: <u>183</u> (A)</td> <td><u>562</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>3.07</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>45</u>	x 2 = <u>90</u>	FAC species <u>100</u>	x 3 = <u>300</u>	FACU species <u>18</u>	x 4 = <u>72</u>	UPL species <u>20</u>	x 5 = <u>100</u>	Column Totals: <u>183</u> (A)	<u>562</u> (B)	Prevalence Index = B/A = <u>3.07</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>45</u>	x 2 = <u>90</u>																			
FAC species <u>100</u>	x 3 = <u>300</u>																			
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Column Totals: <u>183</u> (A)	<u>562</u> (B)																			
Prevalence Index = B/A = <u>3.07</u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>35</u> =Total Cover																				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u>Artemisia vulgaris</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Indicators:</b>  <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>        </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
4. <u>Toxicodendron radicans</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
5. <u>Celastrus orbiculatus</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>45</u> =Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. <u>Parthenocissus quinquefolia</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. <u>Celastrus orbiculatus</u>	<u>8</u>	<u>Yes</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
<u>23</u> =Total Cover																				
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																				

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

## SOIL

Sampling Point: Wet\_7A-Y-2

[illegible]



**Wetland 7A-Y - View facing north**



**Wetland 7A-Y - Soils**

**Segment 11 – Package 7A**

**SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region</b> See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 9/30/2022

Applicant/Owner: TDI State: NY Sampling Point: Upl\_7A-Y

Investigator(s): C. Scrivner & K. Shumacher Section, Township, Range: \_\_\_\_\_

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope %: 0

Subregion (LRR or MLRA): LRR R Lat: 42.14448°N Long: -73.90804°W Datum: WGS84

Soil Map Unit Name: Ur - Udorthents, loamy NWI classification: NA

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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
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Remarks: (Explain alternative procedures here or in a separate report.)  
 Fill area adjacent to wetland.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1)  <input type="checkbox"/> High Water Table (A2)  <input type="checkbox"/> Saturation (A3)  <input type="checkbox"/> Water Marks (B1)  <input type="checkbox"/> Sediment Deposits (B2)  <input type="checkbox"/> Drift Deposits (B3)  <input type="checkbox"/> Algal Mat or Crust (B4)  <input type="checkbox"/> Iron Deposits (B5)  <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)         </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9)  <input type="checkbox"/> Aquatic Fauna (B13)  <input type="checkbox"/> Marl Deposits (B15)  <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)  <input type="checkbox"/> Presence of Reduced Iron (C4)  <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)  <input type="checkbox"/> Thin Muck Surface (C7)  <input type="checkbox"/> Other (Explain in Remarks)         </div> </div>		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** – Use scientific names of plants.

Sampling Point: Upl\_7A-Y

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>40</u></td> <td>x 5 = <u>200</u></td> </tr> <tr> <td>Column Totals: <u>60</u> (A)</td> <td><u>280</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.67</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>40</u>	x 5 = <u>200</u>	Column Totals: <u>60</u> (A)	<u>280</u> (B)	Prevalence Index = B/A = <u>4.67</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>40</u>	x 5 = <u>200</u>																			
Column Totals: <u>60</u> (A)	<u>280</u> (B)																			
Prevalence Index = B/A = <u>4.67</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u>Juniperus virginiana</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover																				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u>Centaurea stoebe</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>																	
2. <u>Solidago juncea</u>	<u>15</u>	<u>Yes</u>	<u>UPL</u>																	
3. <u>Plantago lanceolata</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
=Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover																				

**Hydrophytic Vegetation Indicators:**  
1 - Rapid Test for Hydrophytic Vegetation  
2 - Dominance Test is >50%  
3 - Prevalence Index is ≤3.0<sup>1</sup>  
4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>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: Upl\_7A-Y

[illegible]