



Wetland 7A-Z - View facing south/southwest



Wetland 7A-Z - Soils

Segment 11 – Package 7A

SITE PHOTOGRAPHS

Champlain Hudson Power Express

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

Project/Site: CHPE City/County: Catskill / Greene County Sampling Date: 9/30/2022

Applicant/Owner: TDI State: NY Sampling Point: Upl_7A-Z-17

Investigator(s): C. Scrivner & K. Shumacher Section, Township, Range: _____

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope %: 3

Subregion (LRR or MLRA): LRR R Lat: 42.14438° Long: -73.90921°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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Successional shrubland / hillslope.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)		<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)
Field Observations: 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)	Wetland Hydrology Present? 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: Upl_7A-Z-17

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer negundo</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</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>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>10</u>	<u>=Total Cover</u>		Prevalence Index worksheet: <table style="width: 100%;"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>55</u></td> <td>x 2 = <u>110</u></td> </tr> <tr> <td>FAC species <u>53</u></td> <td>x 3 = <u>159</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>143</u> (A)</td> <td><u>409</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.86</u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>55</u>	x 2 = <u>110</u>	FAC species <u>53</u>	x 3 = <u>159</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>143</u> (A)	<u>409</u> (B)	Prevalence Index = B/A = <u>2.86</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>55</u>	x 2 = <u>110</u>																			
FAC species <u>53</u>	x 3 = <u>159</u>																			
FACU species <u>35</u>	x 4 = <u>140</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>143</u> (A)	<u>409</u> (B)																			
Prevalence Index = B/A = <u>2.86</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>Viburnum cassinoides</u>	<u>45</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>Rhamnus cathartica</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Acer negundo</u>	<u>10</u>	<u>No</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>70</u>	<u>=Total Cover</u>																		
Herb Stratum (Plot size: <u>5'</u>)																				
1. <u>Parthenocissus quinquefolia</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <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 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Toxicodendron radicans</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Viburnum cassinoides</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>																	
4. <u>Oxalis stricta</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
5. <u>Rhamnus cathartica</u>	<u>3</u>	<u>No</u>	<u>FAC</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>48</u>	<u>=Total Cover</u>																		
Woody Vine Stratum (Plot size: <u>30'</u>)																				
1. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	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.																
2. <u>Celastrus orbiculatus</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Toxicodendron radicans</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
	<u>15</u>	<u>=Total Cover</u>																		

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

SOIL

Sampling Point: Upl_7A-Z-17

[illegible]



Upland 7A-Z - View facing west/northwest



Upland 7A-Z - Soils

Segment 11 – Package 7A

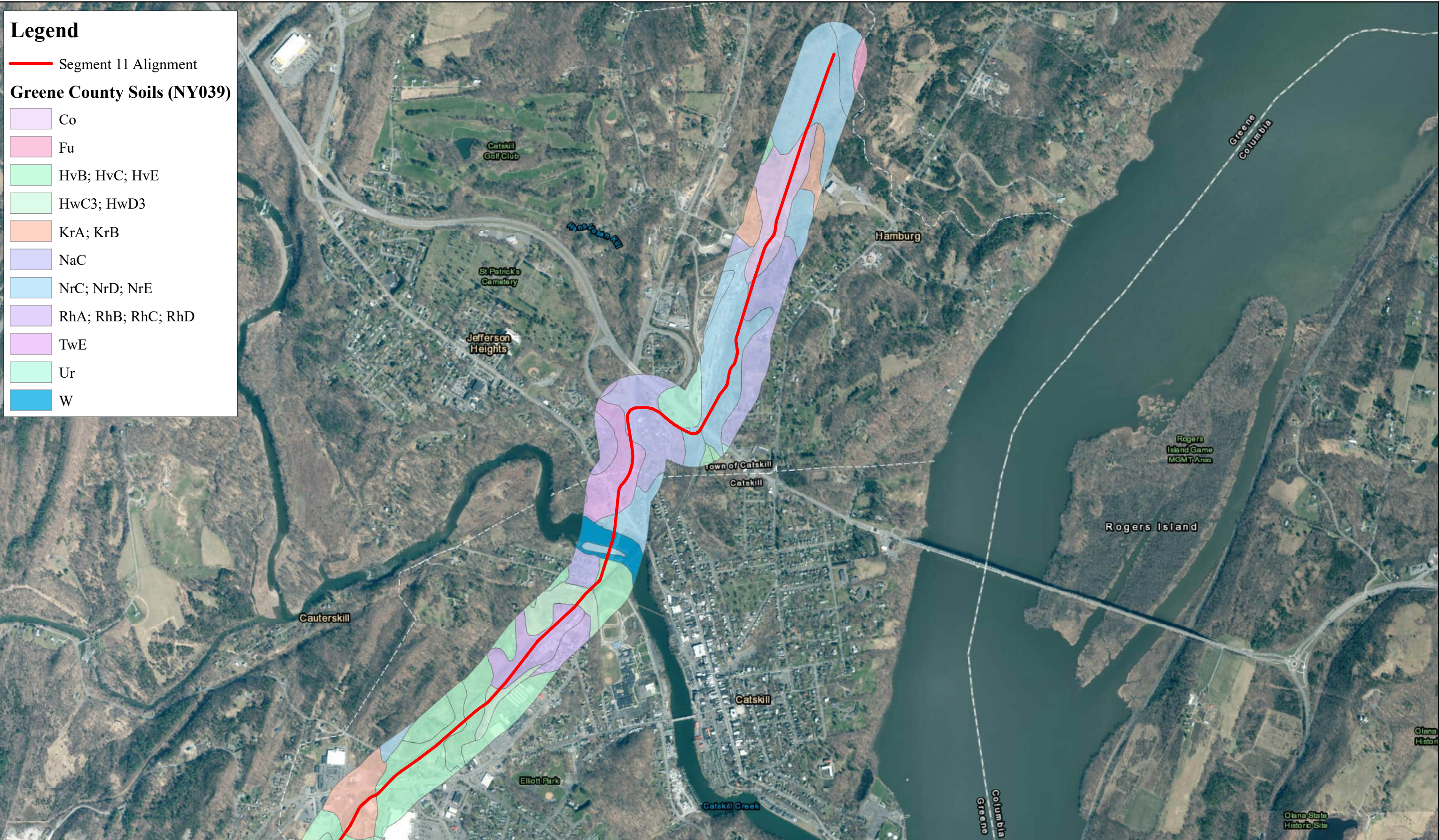
SITE PHOTOGRAPHS

Champlain Hudson Power Express

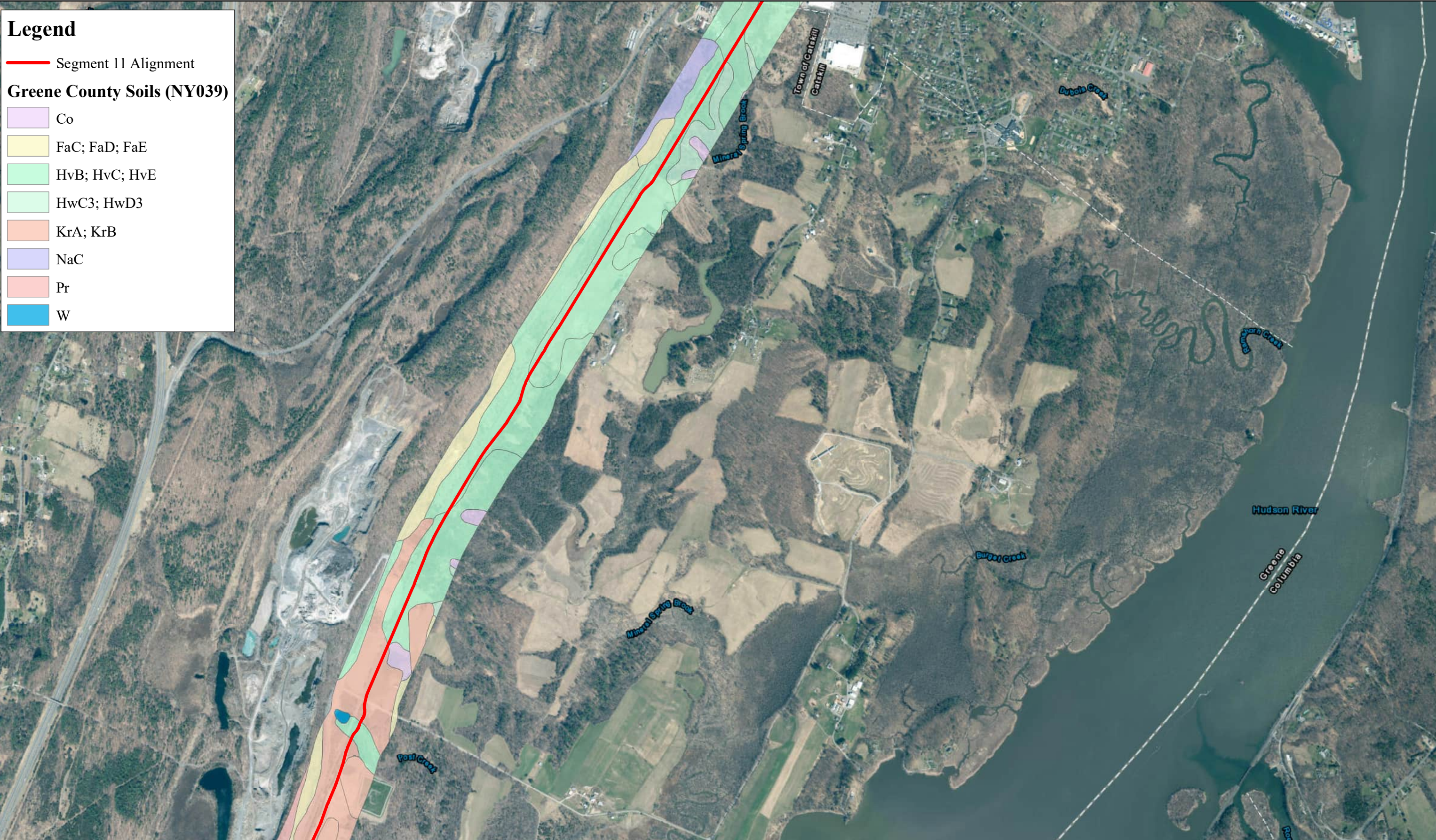
ATTACHMENT 2
NWI & NYSDEC WETLAND & STREAM MAPS

ATTACHMENT 3
NRCS SOIL MAPS

Author: Cole Scrivner Date Saved: 1/18/2023



Author: Cole Scrivner Date Saved: 1/18/2023



Legend

Segment 11 Alignment

Greene County Soils (NY039)

Co

FaC; FaD; FaE

HvB; HvC; HvE

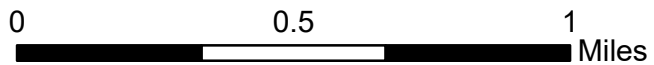
HwC3; HwD3

KrA; KrB

NaC

Pr

W



Champlain Hudson Power Express

Segment 11-Package 7A NRCS Soil Map

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the

Legend

Segment 11 Alignment

Greene County Soils (NY039)

Co

FaC; FaD; FaE

Fu

HvB; HvC; HvE

HwC3; HwD3

KrA; KrB

Mf

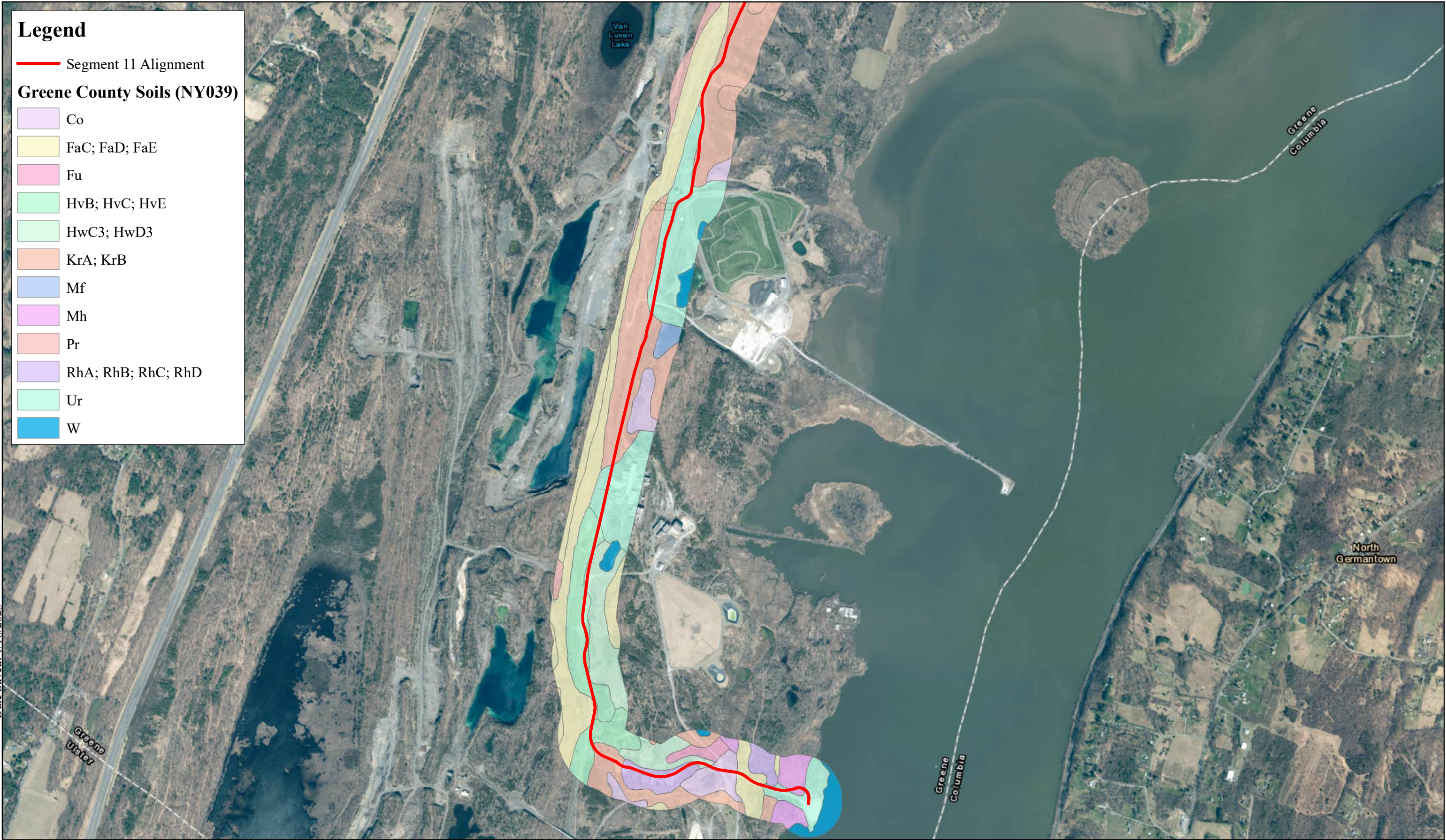
Mh

Pr

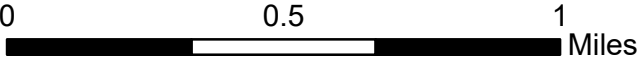
RhA; RhB; RhC; RhD

Ur

W



Author: Cole Scrivner Date Saved: 1/18/2023



*Champlain Hudson Power Express
Segment 11-Package 7A NRCS Soil Map*

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the

ATTACHMENT 4

TABLES

Table 4-1
Summary of Wetlands Within the Project Corridor¹

Approximate Station & Dwg. No.	Wetland ID	Cowardin Classification ²	Associated Water Course	Area w/in JD Limits Square Feet (sf)	USACE & NYSDEC Jurisdiction	Coordinates (lat., long)
70008+00 (C-101)	7A-W	PEM	Corlaer Kill	3,328	USACE	42.244557, -73.858789
		PFO		23,423		
70011+00 (C-101-103)	FA-AP, AO, AN	PEM	Corlaer Kill	128,837	USACE	42.241043, -73.860591
		PSS		106,085		
		PFO		48,686		
70032+00 (C-103-104)	AC	PEM	Unnamed Tributary to Hudson River (38)	585	USACE	42.235033, -73.863237
		PFO		63,652		
		PUB		8,288		
70058+00 (C-105)	BC	PEM	Unnamed Tributary to Hudson River	9,993	USACE	42.229184, -73.865645
		PSS		16,370		
70059+00 (C-105)	FA-6N	PEM	Drains to Catskill Creek	292	USACE	42.229305, -73.867082
70060+50 (C-105)	GN	PEM	Unnamed Tributary to Hudson River	14,381	USACE	42.229111, -73.866092
70061+00 (C-105)	M-1	PEM	Hans Vosen Kill (S-3)	0	USACE	42.228397, -73.86697
70061+25 (C-105)	GQ	PFO	Unnamed Tributary to Hudson River	0	USACE	42.228558, -73.865448
70160+50 (C-111)	CC	PSS	Unnamed Tributary to Hudson River (42)	29,552	USACE	42.210604, -73.887593
70162+00 (C-111)	GO	PFO	Unnamed Tributary to Hudson River (42)	2,152	USACE	42.210070, -73.886207
70186+00 (C-113)	DC	PEM	Unnamed Tributary to Hudson River	16,249	USACE	42.204503, -73.892862
		PFO		1,221		
70204+00 (C-114)	EC	PEM	Unnamed Tributary to Hudson River	166,237	USACE	42.199067, -73.897135
70209+00 (C-114)	GD	PEM	Unnamed Tributary to Hudson River	1,224	USACE	42.199891, -73.897246
70227+00 (C-116)	FA-TD	PSS	Unnamed Tributary to Hudson River	14,911	USACE	42.195511, -73.899937
70232+00 (C-116-118)	FC/FA- FC	PSS	Unnamed Tributary to Hudson River	143,390	USACE	42.189994, -73.904347
		PFO		78,479		
70258+00 (C-118)	GR	PEM	Unnamed Tributary to Hudson River	20,406	USACE	42.188276, -73.906324

Table 4-1
Summary of Wetlands Within the Project Corridor¹

Approximate Station & Dwg. No.	Wetland ID	Cowardin Classification ²	Associated Water Course	Area w/in JD Limits Square Feet (sf)	USACE & NYSDEC Jurisdiction	Coordinates (lat., long)
70278+00 (C-119-120)	TB/FA-TB	PSS	Unnamed Tributary to Hudson River	5,288	USACE	42.181009, -73.908867
70280+00 (C-119-121)	GC	PEM	Post Creek (47)	60,675	USACE	42.179533, -73.910472
		PSS		92,906		
		PFO		6,714		
70289+00 (C-120-121)	TC/FA-TC	PEM	Post Creek (47)	26,635	USACE	42.179047, -73.910161
		PFO		7,537		
70307+50 (C-121)	HC	PEM	Unnamed Tributary to Hudson River	20,651	USACE	42.174732, -73.913022
70319+00 (C-122)	TF	PFO	Unnamed Tributary to Hudson River	35,689	USACE	42.170568, -73.913913
70323+00 (C-122)	IC	PEM	Unnamed Tributary to Hudson River (49)	2,705	USACE	42.171447, -73.914034
70335+00 (C-123)	JC	PEM	Unnamed Tributary to Hudson River	43,313	USACE	42.167695, -73.915718
70346+00 (C-124-125)	KC	PEM	Unnamed Tributary to Hudson River (50)	23,655	USACE	42.161808, -73.917468
		PFO		43,658		
70348+00 (C-124)	G-P7-13	PFO	Unnamed Tributary to Hudson River (50)	30,110	USACE	42.163577, -73.916617
70388+00 (C-126-127)	LC	PEM	Unnamed Tributary to Hudson River	12,696	USACE	42.153977, -73.919912
		PFO		4,191		
70393+00 (C-127)	MC	PEM	Unnamed Tributary to Hudson River	26,059	USACE	42.15224, -73.920688
70399+00 (C-127)	O-1	PSS	Unnamed Tributary to Hudson River	8,009	USACE	42.15086, -73.920742
70435+00 (C-129-130)	P-1	PEM	Unnamed Tributary to Hudson River	3,780	USACE	42.145868, -73.913472
		PSS		189		
70438+50 (C-130)	E	PEM	Unnamed Tributary to Hudson River	3,117	USACE	42.14562, -73.912571
70449+00 (C-130-131)	7A-Y	PSS	Hudson River	189	USACE NYSDEC (C-23)	42.227125, -73.869037
70450+00 (C-130-131)	7A-Z	PEM	Hudson River	20,997	USACE NYSDEC (C-23)	42.227125, -73.869037
		PSS1R		189		
		PFO1R		5,574		

¹ Wetlands identified include both wetlands that are directly crossed by the overland transmission cable corridor as well as wetlands that are adjacent to the Project Corridor that were delineated during field surveys.

²Cowardin et al. 1979 categories include: Palustrine Emergent (PEM), Palustrine Forested (PFO), Palustrine Scrub-Shrub (PSS) and palustrine unconsolidated bottom (PUB).

Table 4-2
Summary of Waterbodies within the Project Corridor

Approximate Station & Dwg. No.	Waterbody Name	NYSDEC Classification	Waterbody Field ID & NYSDEC Regulation	Flow Status	Substrate	Width (ft.) ¹	Depth (ft.) ¹	Length w/in JD Boundary	Coordinates (lat., long)
70009+00 (C-101)	Unnamed Tributary to Hudson River	Unmapped	S51	Intermittent	Cobble-gravel/silt	15	0.75	0	42.241703, -73.859364
70009+50 (C-101)	Unnamed Tributary to Hudson River	Unmapped	S52	Intermittent	Cobble-gravel/silt	3	0.75	273	42.242023, -73.859516
70033+00 (C-103)	Unnamed Tributary to Hudson River	C/C	TG 863-103	Intermittent	Cobble-gravel/silt	5	0.5	235	42.236681, -73.861784
70037+25 (C-104)	Unnamed Tributary to Hudson River	C/C	38 863-103	Perennial	Cobble-gravel/silt	8	2	269	42.235001, -73.863301
70049+00 (C-104)	Unnamed Tributary to Hudson River	C/C	GP7A-S3 863-103	Intermittent	Cobble-gravel/silt	3	0.5	331	42.231944, -73.864167
70092+00 (C-107)	Catskill Creek	C/C	Catskill Creek 863-94	Perennial	Cobble-gravel/silt/sand	224	15	250	42.224749, -73.871138
70095+00 (C-107)	Catskill Creek	C/C	Catskill Creek 863-94	Perennial	Cobble-gravel/silt/sand	100	15		42.223947, -73.871635
70133+00 (C-109)	Unnamed Tributary to Hudson River	Unmapped	41	Perennial	Cobble-gravel/silt	3	1.5	237	42.217394, -73.878412
70134+00 (C-109)	Unnamed Tributary to Hudson River	Unmapped	41A	Perennial	Silt	8	2.5	65	42.216239, -73.88067

Table 4-2
Summary of Waterbodies within the Project Corridor

Approximate Station & Dwg. No.	Waterbody Name	NYSDEC Classification	Waterbody Field ID & NYSDEC Regulation	Flow Status	Substrate	Width (ft.)¹	Depth (ft.)¹	Length w/in JD Boundary	Coordinates (lat., long)
70155+00 (C-111)	Unnamed Tributary to Hudson River	C/C	42 863-1	Perennial	Cobble-gravel/silt	4	1	310	42.210888, -73.887398
70166+50 (C-112)	Unnamed Tributary to Hudson River	Unmapped	DPS-S8	Intermittent	Silt	2	0.5	120	42.207533, -73 890245
70176+25 (C-112)	Unnamed Tributary to Hudson River	Unmapped	DPS-S9	Intermittent	Silt	4	1	60	42.209671, -73 888510
70183+25 (C-113)	Unnamed Tributary to Hudson River	Unmapped	DPS-S10	Intermittent	gravel	3	1	100	42.205371, -73.891996
70219+50 (C-115)	Unnamed Tributary to Hudson River	Unmapped	DPS-S6	Intermittent	silt	1	0.5	80	42.197114, -73.898945
70223+50 (C-115)	Unnamed Tributary to Hudson River	Unmapped	43	Intermittent	Silt	4	1	215	42.196194, -73.899554
70229+00 (C-116)	Unnamed Tributary to Hudson River	Unmapped	FA-S-TA	Intermittent	Cobble-gravel/silt	4	0.5	65	42.194741, -73.900219
70246+50 (C-117)	Unnamed Tributary to Hudson River	Unmapped	44	Perennial	Silt	4	1	78	42.190882, -73.903962
70256+00 (C-118)	Unnamed Tributary to Hudson River	Unmapped	DPS-S5	Intermittent	Silt	2	1	100	42.188495, -73.905453

Table 4-2
Summary of Waterbodies within the Project Corridor

Approximate Station & Dwg. No.	Waterbody Name	NYSDEC Classification	Waterbody Field ID & NYSDEC Regulation	Flow Status	Substrate	Width (ft.)¹	Depth (ft.)¹	Length w/in JD Boundary	Coordinates (lat., long)
70261+25 (C-118)	Unnamed Tributary to Hudson River	Unmapped	45	Intermittent	Silt	2	1	87	42.187175, -73.906231
70280+00 (C-119)	Post Creek	C/C	46 (Post Creek) 863-1	Perennial	Cobble-gravel/silt	4	0.5	178	42.182438, -73.908918
70283+00 (C-119)	Unnamed Tributary to Hudson River	Unmapped	47A	Intermittent	Silt	1	0.5	291	42.181531, -73.909288
70306+00 (C-121)	Unnamed Tributary to Hudson River	Unmapped	48	Intermittent	Silt	4	0.5	301	42.176197, -73.912254
70360+75 (C-124)	Unnamed Tributary to Hudson River	Unmapped	DPS-S3	Intermittent	Silt	1	0.5	90	42.161751, -73.917652
70400+50 (C-127)	Unnamed Tributary to Hudson River	Unmapped	DPS-S1	Intermittent	Silt	1	0.5	120	42.150979, -73.920310
70404+50 (C-127)	Unnamed Tributary to Hudson River	Unmapped	DPS-S2	Intermittent	Silt	2	0.5	160	42.149886, -73.920428

¹ Bankfull width and bankfull depth measurements are approximate.

Table 4-3
Soil Description Summary

County	Soil Name	Symbol	% Slopes	Hydric (y/n)	Drainage Class
Hydric Soils					
Greene	Covington and Madalin soils	Co	0-3	Y	Poorly Drained
Greene	Fluvaquents-Udifluvents complex, frequently flooded	Fu	0-3	Y	Poorly Drained
Greene	Medisaprist, inundated	Mf	0-1	Y	Very Poorly Drained
Greene	Medisaprist-Hydraquents, tidal marsh	Mh	0-1	Y	Very Poorly Drained
Non-hydric Soils					
Greene	Farmington gravelly silt loam, rolling, rocky	FaC	8-15	N	Well Drained
Greene	Farmington gravelly silt loam, hilly, rocky	FaD	15-25	N	Well Drained
Greene	Farmington gravelly silt loam, steep, rocky	FaE	15-25	N	Somewhat Excessively Drained
Greene	Hudson and Vergennes soils	HvB	3-8	N	Moderately Well Drained
Greene	Hudson and Vergennes soils	HvC	8-15	N	Moderately Well Drained
Greene	Hudson and Vergennes soils	HvE	25-50	N	Moderately Well Drained
Greene	Hudson and Vergennes silty clay loams	HwC3	8-15	N	Moderately Well Drained
Greene	Hudson and Vergennes silty clay loams	HwD3	15-25	N	Moderately Well Drained
Greene	Kingsbury and Rhinebeck soils	KrA	0-3	N	Somewhat Poorly Drained
Greene	Kingsbury and Rhinebeck soils	KrB	3-8	N	Somewhat Poorly Drained
Greene	Nassau channery silt loam, rolling	NaC	5-15	N	Somewhat Excessively Drained
Greene	Nassau channery silt loam, rolling, very rocky	NrC	8-15	N	Somewhat Excessively Drained
Greene	Nassau channery silt loam, hilly, very rocky	NrD	15-25	N	Somewhat Excessively Drained

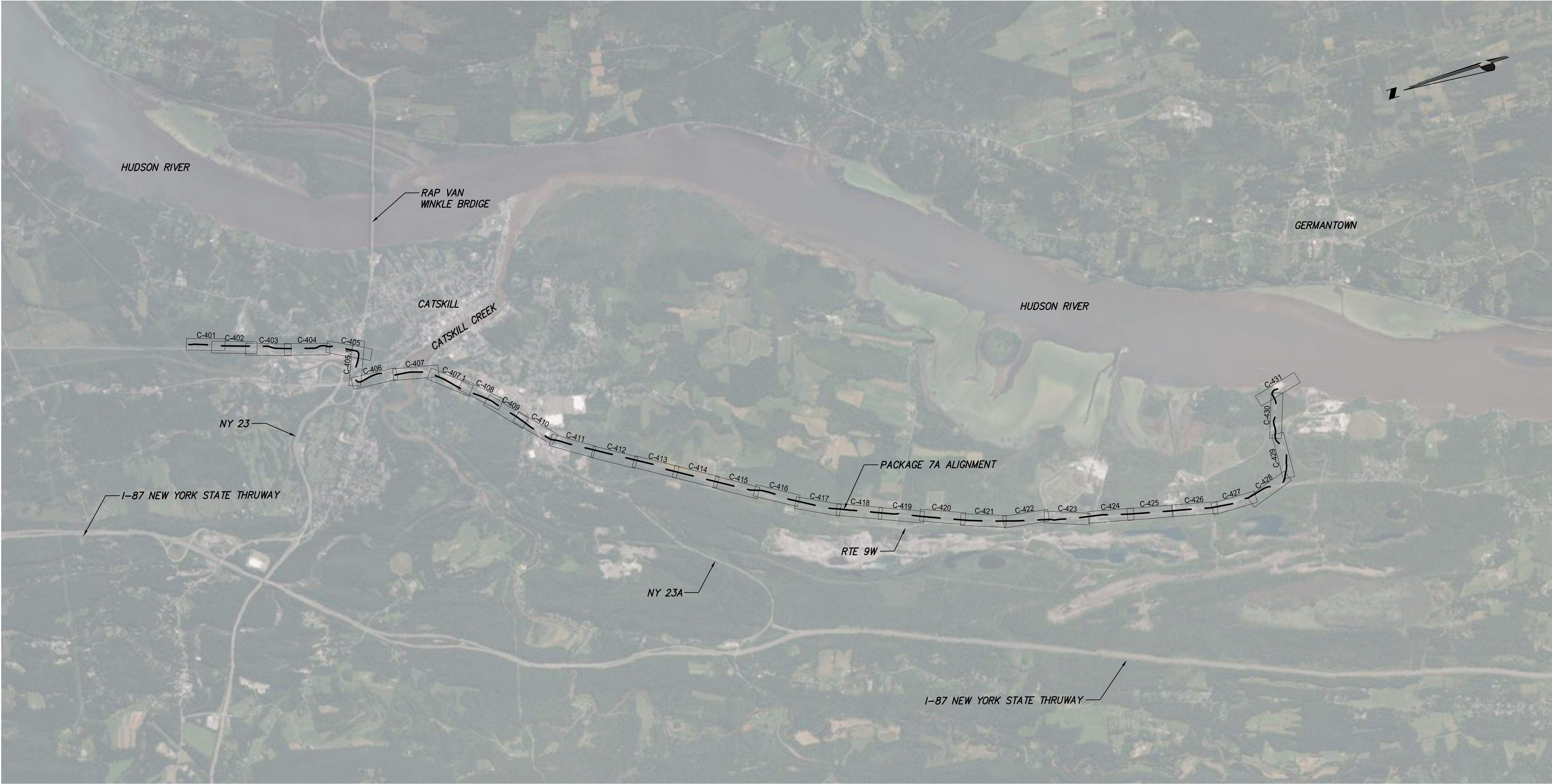
Table 4-3
Soil Description Summary

County	Soil Name	Symbol	% Slopes	Hydric (y/n)	Drainage Class
Greene	Nassau channery silt loam, steep, very rocky	NrE	25-45	N	Somewhat Excessively Drained
Greene	Pits, quarry	Pr	-	-	-
Greene	Riverhead loam	RhA	0-3	N	Well Drained
Greene	Riverhead loam	RhB	3-8	N	Well Drained
Greene	Riverhead loam, rolling	RhC	8-15	N	Well Drained
Greene	Riverhead loam, hilly	RhD	15-25	N	Well Drained
Greene	Tunkhannock and Chenango gravelly loams	TwE	25-50	N	Well Drained
Greene	Udorthents, loamy	Ur	0-8	N	Somewhat Excessively Drained

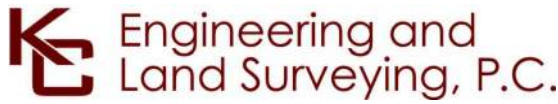
ATTACHMENT 5
WETLANDS AND WATERBODIES DELINEATION MAPPING

File: P:\120174-CHPE\CABLE_INSTALL-KIEWIT\60_CAD\20_ENGINEERING_CAD_FILES\PACKAGE_7A\NY_ENVIRONMENTAL_(EROSION_CONTROL)\01_KCE\SHEET_FILES\21162_7A_C_400.DWG Saved: 6/16/2023 8:27:49 AM Plotted: 6/20/2023 11:10:41 AM Current User: Benson Lam LastSavedBy: blom

A



E&SC KEY PLAN
SCALE: 1" = 2000'



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

	06/19/2023	ISSUED FOR CONSTRUCTION SUBMISSION	SL	JL	
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 11 (PACKAGE 7A) - CSX: CATSKILL
E&SC KEY PLAN

DRAWN BY:	BL	DESIGNED BY:	SL	APPROVED BY:	JL	SCALE	AS SHOWN	DATE	06/19/2023
						REV. NO.		SH.NO.	OF

KIEWIT PROJECT NO.	21162
KC PROJECT NO.	120174
DRAWING NO.	C-400

File: C:\P\WORKING\REV\01\0551130\CHPE_G_LEGEND--00X.DWG Saved: 6/13/2023 1:57:51 PM Plotted: 6/13/2023 1:57:51 PM Current User: Wager, Mike LastSavedBy: Mike Wager

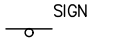
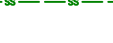
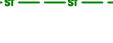
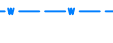
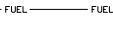
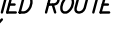
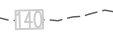
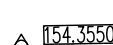
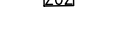
1

2

3

4

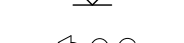
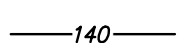
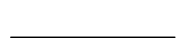
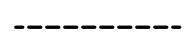
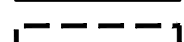
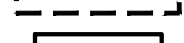
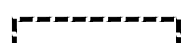
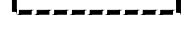
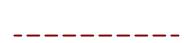
LEGEND & ABBREVIATIONS

	EXIST. FIBER OPTIC LINE HANDHOLE		EXISTING SIGN
	EXIST. FIBER OPTIC LINE PEDESTAL		EXIST. STRUCTURE POST
	EXIST. FIBER OPTIC LINE DOGHOUSE		EXIST. STRUCTURE MAILBOX
	EXIST. FIBER OPTIC LINE MANHOLE		EXIST. GAS LINE
	EXIST. FIBER OPTIC LINE VAULT		EXIST. UNDERGROUND TELE.
	EXIST. FIBER OPTIC LINE BORE PIT		EXIST. FIBER OPTIC
	EXIST. FIBER OPTIC LOCK BOX		EXIST. OVERHEAD TELE.
	EXIST. GROUND ROD		EXIST. UNDERGROUND ELEC.
	EXIST. FIBER OPTIC MARKER POST		EXIST. OVERHEAD ELEC.
	EXIST. FIBER OPTIC BOX		EXIST. CULVERT
	EXIST. FIBER STORAGE		EXIST. SANITARY SEWER
	EXIST. FIRE HYDRANT		EXIST. STORM SEWER
	EXIST. WATER VALVE		EXIST. POTABLE WATER LINE
	EXIST. WATER MANHOLE		EXIST. FUEL LINE
	EXIST. WATER MARKER		EXIST. RAILROAD TRACK
	EXIST. SANITARY SEWER MANHOLE		CERTIFIED ROUTE PROVIDED BY CHPE KMZ
	EXIST. SANITARY SEWER VENT		RANDALL PREFERRED PROVIDED BY CHPE KMZ
	EXIST. STORM SEWER MANHOLE		EXIST. CONTOUR, INDEX
	EXIST. STORM SEWER CATCH BASIN		EXIST. CONTOUR, DEPRESSION INDEX
	EXIST. CULVERT INVERT		EXIST. CONTOUR, INTERMEDIATE
	EXIST. GAS MANHOLE		EXIST. CONTOUR, DEPRESSION INTERMEDIATE
	EXIST. GAS VALVE		EXIST. SPOT ELEVATION
	EXIST. GAS MARKER		EXIST. DEBRIS
	EXIST. GAS PIPELINE VENT		EXIST. FIELD LINE
	EXIST. LIGHT POLE		EXIST. LANDSCAPE AREA
	EXIST. UTILITY POLE		EXIST. PILE
	EXIST. ELEC. POLE		EXIST. STORAGE AREA
	EXIST. ELEC. TOWER		EXIST. NATURAL BOULDER
	EXIST. TRAFFIC LIGHT		EXIST. NATURAL SHRUB LINE
	EXIST. ELEC. METER		EXIST. NATURAL TREE LINE
	EXIST. ELEC. MANHOLE		EXIST. NATURAL SINGLE TREE/BUSH
	EXIST. ELEC. TRANSFORMER		EXIST. STRUCTURAL BUILDING
	EXIST. ELEC. VAULT		EXIST. PAVED DRIVE
	EXIST. ELEC. HANDHOLE		EXIST. PAVED ROAD
	EXIST. ELEC. PEDESTAL/BOX		EXIST. PAVED SHOULDER
	EXIST. ELEC. MARKER POST		EXIST. PAVED SIDEWALK
	EXIST. ELEC. GUY ANCHOR/WIRE		EXIST. GUARDRAIL
	EXIST. TELE. RISER/BOX		EXIST. TRAIL
	EXIST. TELE. MANHOLE		EXIST. FENCE
	EXIST. TELE. HANDHOLE		EXIST. WALL
	EXIST. TELE. VAULT		EXIST. RETAINING WALL
	EXIST. TELE. PEDESTAL		EXIST. MILEPOST NUMBER
	EXIST. TELE. DOGHOUSE		EXIST. MAPPING BOUNDARY
	EXIST. TELE. MARKER POST		EXIST. GROUND CONTROL
	EXIST. TELE. JUNCTION BOX		EXIST. RIGHT-OF-WAY
	EXIST. TELE. TRAFFIC SIGNAL BOX		EXIST. ABUTTER
	EXIST. CELL TOWER		EXIST. WETLAND FLAG
	EXIST. CABLE BOX		EXIST. WETLANDS
	EXISTING MANHOLE UNKNOWN		EXIST. WATERBODY, STREAM, OR STREAM BANK
	EXISTING UTILITY BOX UNKNOWN		
	EXISTING ANTENNA		
	EXISTING CAPPED IRON ROD		
	EXISTING IRON PIPE		
	EXISTING CONCRETE MONUMENT		
	EXISTING POST		
	EXISTING REFLECTOR MARKER		
	EXISTING SYMBOL		

NOTES:

1. LIMIT OF WORK (LOW) – THE BOUNDARY IN WHICH ALL CONSTRUCTION ACTIVITIES, STOCKPILES MATERIAL, EQUIPMENT STORAGE, ACCESS, PARKING, GRADING, LANDSCAPING, RESTORATION, AND ANY OTHER CONSTRUCTION RELATED ACTIVITIES SHALL OCCUR. ADDITIONALLY, THE LOW IS THE BOUNDARY FOR ALL POTENTIAL DISTURBANCE DURING CONSTRUCTION. UNLESS OTHERWISE SPECIFIED, WHEN THE LIMIT OF CLEARING AND GRUBBING IS SHOWN ON THE PLANS, IT SHALL ALSO BE THE LOW. THE LOW INCLUDES THE AREA THAT WOULD BE CONSIDERED THE LIMIT OF DISTURBANCE (LOD).

	PEM – PALUSTRINE EMERGENT
	PSS – PALUSTRINE SCRUB-SHRUB
	PFO – PALUSTRINE FORESTED
	PUB – PALUSTRINE UNCONSOLIDATED BOTTOM
	L1 – LACUSTRINE LIMNETIC
	L2 – LACUSTRINE LITTORAL
	NYSDEC FWW 100-FOOT ADJACENT BUFFER AREA
	ESTIMATED WETLAND BOUNDARY
	ESTIMATED AGRICULTURAL LAND BOUNDARY
	FLOODWAY BOUNDARY
	1% ANNUAL CHANCE FLOODPLAIN BOUNDARY
	0.2% ANNUAL CHANCE FLOODPLAIN BOUNDARY
	JD BOUNDARY
	APPROX. USACE FEDERAL CHANNEL BOUNDARY (TYP.)

	VEG. CLEARING – TYPE I – HAND CUTTING		APP	APPROVED
	VEG. CLEARING – TYPE II – MECHANICAL CLEARING		CL	CENTERLINE
	VEG. CLEARING – TYPE III – MOWING		CMP	CORRUGATED METAL PIPE
	VEG. CLEARING – TYPE IV – MECHANICAL WHOLE-TREE FELLING		CONC	CONCRETE
	PROP. WETLAND PROTECTION FENCE		DB	DESIGNED BY
	PROP. COMPOST FILTER SOCK (OR SILT SOCK)		DEC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
	CHECK DAM		DEG	DEGREES
	SURFACE WATER FLOW		DR	DRIVE
	PROP. TEMPORARY SWALE		DZ	DEVIATION ZONE
	STABILIZED CONSTRUCTION ENTRANCE (TYP.)		E	EASTING
	PROP. TEMP MAJOR CONTOUR		ELECTRIC	ELECTRIC CABLE
	PROP. TEMP MINOR CONTOUR		ELEV	ELEVATION
	PROP. LIMITS OF WORK/DISTURBANCE		EQNAHD	STATION EQUATION AHEAD
	PROP. LIMITS OF CLEARING/LIMITS OF WORK IN CLEARING AREAS		EQNBK	STATION EQUATION BACK
	PROP. CONCRETE WASHOUT		EXIST	EXISTING
	PROP. TEMP ACCESS ROAD RTE (EXISTING ROAD OR SURFACE)		FIBER	FIBER OPTIC CABLE
	PROP. TEMP REFURBISHED ACCESS ROAD		FT	FEET
	PROP. TEMP ACCESS ROAD OR OFF SITE ACCESS ROAD		GAS	GAS PIPE
	PROP. WETLAND OR AGRICULTURAL LAND* WORKING SURFACE (SEE SHEET C-613) (*AGRICULTURAL LANDS MAY USE WETLAND WORKING SURFACE OR OTHER APPROVED MITIGATION METHODS)		H	HORIZONTAL
	PROP. MILLING & RESURFACING		HDD	HORIZONTAL DIRECTIONAL DRILLING
	PROP. SPLICE LOCATION		HVDC	HIGH-VOLTAGE DIRECT CURRENT TRANSMISSION LINE
	PROP. SPLICE VAULT		INV	INVERT ELEVATION
	PROP. LINK BOX HANDHOLE		LOW	LIMITS OF WORK
	PROP. FIBER SPLICE HANDHOLE		LT	LEFT
	PROP. BORING LOCATION		MAX	MAXIMUM
	PROP. ALIGNMENT STATIONING		MIN	MINIMUM
	PROP. ALIGNMENT CENTERLINE		N	NORTHING
	PROP. LAYDOWN YARDS, PARKING, STORAGE & MUSTER AREA		NO	NUMBER
	PROP. WORK AREAS		NY	NEW YORK
	7' FOUL ZONE: NO VEHICLES, MATERIALS, DISTURBANCE, PERSONNEL, OR WORK SHALL ENCROACH THE ZONE WITHIN 7FT OF THE NEAREST RAIL WITHOUT CSX COORDINATION AND APPROVAL		NYDEP	NEW YORK CITY DEPT. OF ENVIRONMENT PROTECTION
	PROP. SHORING/SHEETING		NYCDOT	NEW YORK CITY DEPT. OF TRANSPORTATION
	PROP. TEMP EASEMENT		NYDRP	NEW YORK CITY DEPT. OF PARKS AND RECREATION
	PROP. PERM EASEMENT		P#	PACKAGE #
	PROP. TEMP ACCESS EASEMENT		PERM	PERMANENT
	SPLICE LOCATION POLE MARKER		PROP.	PROPOSED
	UNDERGROUND POWER CABLE POLE MARKER		PVC	POLYVINYL CHLORIDE
	PROP. TRANSITION BOX MANHOLE		PVI	POINT OF VERTICAL INTERSECTION
	DC CABLE IDENTIFICATION TAGS. SEE SHEET C-807 FOR MORE DETAILS		R	RADIUS

APP	APPROVED
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
DB	DESIGNED BY
DEC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DEG	DEGREES
DR	DRIVE
DZ	DEVIATION ZONE
E	EASTING
ELECTRIC	ELECTRIC CABLE
ELEV	ELEVATION
EQNAHD	STATION EQUATION AHEAD
EQNBK	STATION EQUATION BACK
EXIST	EXISTING
FIBER	FIBER OPTIC CABLE
FT	FEET
GAS	GAS PIPE
H	HORIZONTAL
HDD	HORIZONTAL DIRECTIONAL DRILLING
HVDC	HIGH-VOLTAGE DIRECT CURRENT TRANSMISSION LINE
INV	INVERT ELEVATION
LOW	LIMITS OF WORK
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
N	NORTHING
NO	NUMBER
NY	NEW YORK
NYDEP	NEW YORK CITY DEPT. OF ENVIRONMENT PROTECTION
NYCDOT	NEW YORK CITY DEPT. OF TRANSPORTATION
NYDRP	NEW YORK CITY DEPT. OF PARKS AND RECREATION
P#	PACKAGE #
PERM	PERMANENT
PROP.	PROPOSED
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REV	REVISION
ROW	RIGHT-OF-WAY
RT	RIGHT
RTE	ROUTE
SEWER	SANITARY SEWER PIPE
SH	SHEET
ST	STREET
STA	STATION
STORM	STORM DRAIN PIPE
TELECOM	TELECOMMUNICATIONS CABLE
TEMP	TEMPORARY
TR	THERMAL RESISTIVITY
TYP	TYPICAL
V	VERTICAL
WATER	WATERLINE



TETRA TECH ENGINEERING AND SURVEYING P.C.
(A NEW YORK PROFESSIONAL CORPORATION)



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

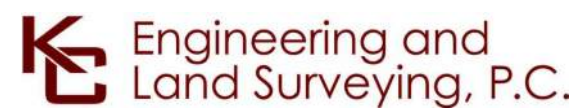
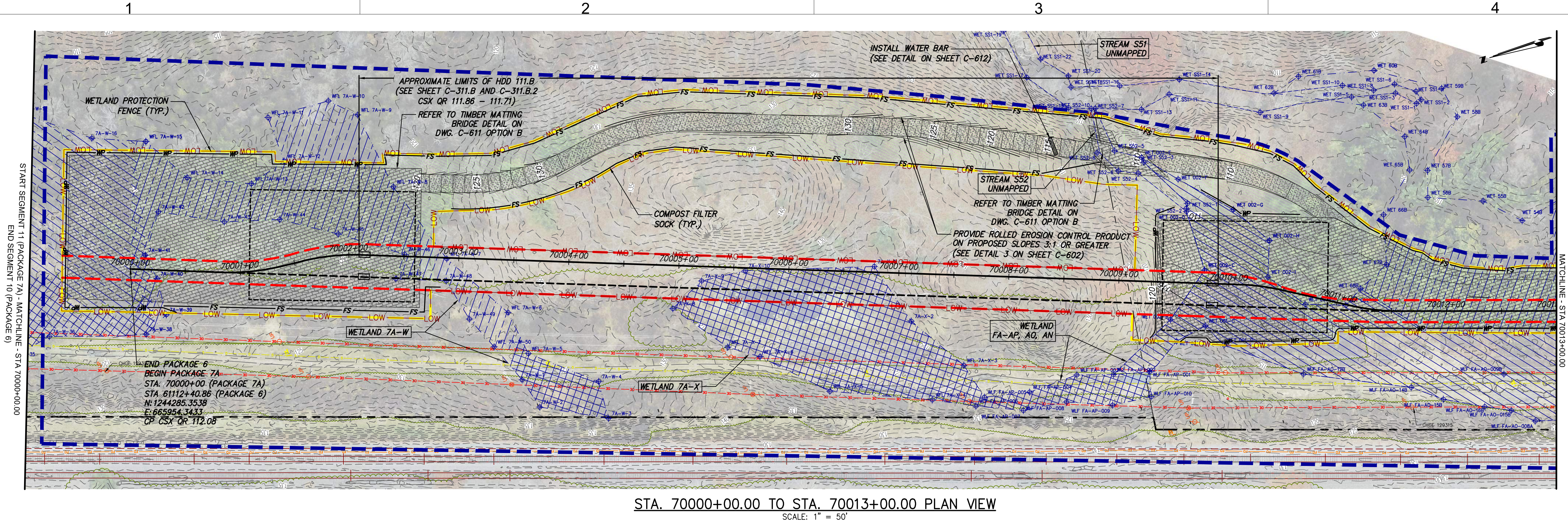
0	06/19/2023	ISSUED FOR CONSTRUCTION SUBMISSION	RB	JL	
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 11 (PACKAGE 7A) - CSX: CATSKILL
LEGEND & ABBREVIATIONS

DRAWN BY:	RB	DESIGNED BY:	AC	APPROVED BY:	JL	SCALE	AS SHOWN	DATE	06/19/2023
						REV. NO.	0	SH.NO.	OF

KIEWIT PROJECT NO.	21162
TT PROJECT NO.	204-3701
DRAWING NO.	G-004

File: P:\120174-CHPE-INSTALL-KIEWIT\60_CAD\20_ENGINEERING_CAD_FILES\PACKAGE_7A\NY_ENVIRONMENTAL_(EROSION_CONTROL)\01_KCE\SHEET_FILES\21162_7A_C_401-408.DWG Saved: 6/20/2023 11:08:35 AM Plotted: 6/20/2023 11:13:06 AM Current User: Benson Lam LastSavedBy: blon



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
	06/19/2023	ISSUED FOR CONSTRUCTION SUBMISSION	SL	JL

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 11 (PACKAGE 7A) - CSX: CATSKILL
EROSION AND SEDIMENT CONTROL PLAN
STA. 70000+00.00 TO STA. 70013+00.00

DRAWN BY:	BL	DESIGNED BY:	SL	APPROVED BY:	JL	SCALE	AS SHOWN	DATE	06/19/2023
						REV. NO.	0	SH. NO.	OF

KIEWIT PROJECT NO.	21162
KC PROJECT NO.	120174
DRAWING NO.	C-401

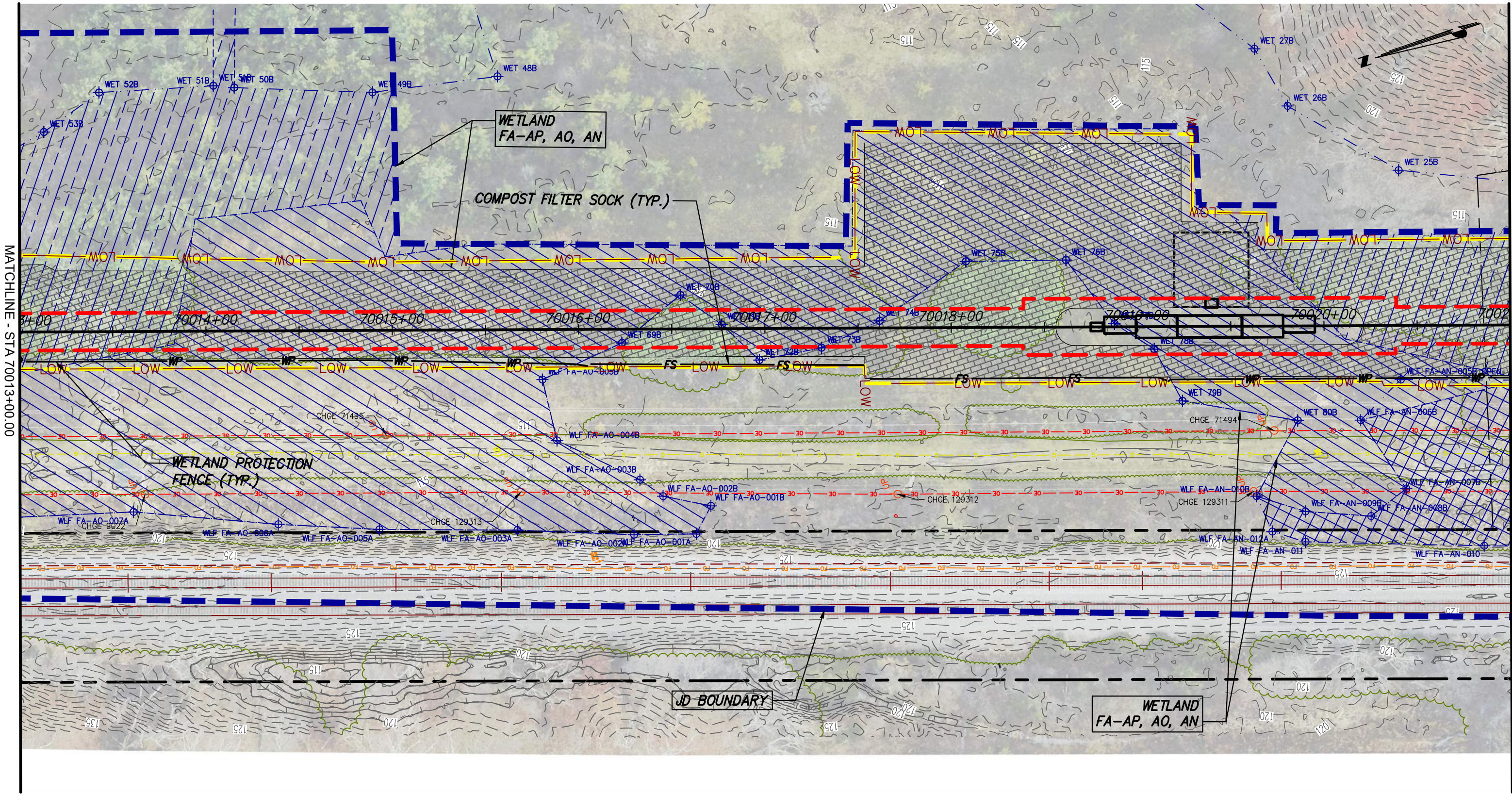
File: P:\120174-CHPE_CABLE_INSTALL-KIEWIT\60_CAD\20_ENGINEERING_CAD_FILES\PACKAGE_7A\NY_ENVIRONMENTAL_(EROSION_CONTROL)\01_KCE\SHEET_FILES\PACKAGE_7A_C_401-408.DWG Saved: 6/20/2023 11:08:33 AM Plotted: 6/20/2023 11:13:57 AM Current User: Benson Lam LastSavedBy: blon

1

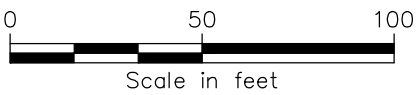
2

3

4



STA. 70013+00.00 TO STA. 70021+00.00 PLAN VIEW
SCALE: 1" = 50'



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

	06/19/2023	ISSUED FOR CONSTRUCTION SUBMISSION				SL	JL		
No.	DATE	SUBMITTAL / REVISION DESCRIPTION				DB	APP		

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 11 (PACKAGE 7A) - CSX: CATSKILL
EROSION AND SEDIMENT CONTROL PLAN
STA. 70013+00.00 TO STA. 70021+00.00

KIEWIT PROJECT NO.		21162
KC PROJECT NO.		120174
DRAWING NO.		C-402
DRAWN BY:	BL	DESIGNED BY: SL
APPROVED BY:	JL	SCALE AS SHOWN
DATE	06/19/2023	SH.NO. OF