Profile Description: Describe to the c			
	lepth needed to document the indicator o	r confirm the absence	of indicators.)
Depth Matrix (inches) Color (moist) %	Redox Features	1 a a 2 T a . d . m a	Domestra
	Color (moist) % Type ¹	Loc ² Texture	Remarks
0-12 104R3/2 100		<u> 5,2</u>	
12+			Compec 4.0 ,
10.			1.0 7
			·
}			
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, MS=Masked Sand Grain	ns. ² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:		Indicators	for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Below Surface (S8) (LRR I	R. 2 cm 1	Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B)		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surface (S9) (LRR R, MLF		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (LRR K, L		Surface (S7) (LRR K, L, M)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)		llue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		Park Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Surface (F6)		anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		ont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		Spodic (TA6) (MLRA 144A, 145, 149B)
	Nedex Depressions (1 5)		arent Material (F21)
Sandy Redoy (S5)			
Sandy Redox (S5) Stripped Matrix (S6)			
Stripped Matrix (S6)	OB)	Very S	hallow Dark Surface (TF12)
	19B)	Very S	
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14		Very S	ihallow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14	9 9B) wetland hydrology must be present, unless d	Very S	ihallow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14 Indicators of hydrophytic vegetation and Restrictive Layer (if observed):		Very S	ihallow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14 Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14 Indicators of hydrophytic vegetation and Restrictive Layer (if observed):		Very S	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14 Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches):		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type: Depth (inches): Remarks:		Very S Other	challow Dark Surface (TF12) (Explain in Remarks)

Project/Site: Heritage Wind	City/County: Orleans County Sampling Date: 08/14/19
Applicant/Owner: Heritage Wind, LLC (Apex Clean Energy)	State: NY Sampling Point: FA008@WET1
Investigator(s): AS, JK	Section, Township, Range: Town of Barre
Landform (hillside, terrace, etc.): DITCH Local	relief (concave, convex, none): CONCAVE Slope %: 0-5
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.1388190915	Long: -78.2503439995 Datum: WGS84
Soil Map Unit Name: Churchville silt loam, 0 to 2 percent slopes	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 distur	
Are Vegetation, Soil, or Hydrology naturally problems	
SUMMARY OF FINDINGS – Attach site map showing sam	
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
Referenced in Report as: 1F	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor ((C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres	on Living Roots (C3) X Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced In	on (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in	n Tilled Soils (C6) X Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)Other (Explain in Remar	
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _X Depth (inches):	: <u> </u>
Water Table Present? Yes No X Depth (inches):	:
Saturation Present? Yes No X Depth (inches):	: Wetland Hydrology Present? Yes X No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	

VEGETATION – Use scientific names of plants.

	Absolute	Dominant	Indicator	
ree Stratum (Plot size: 30-foot radius)	% Cover	Species?	Status	Dominance Test worksheet:
. Ulmus americana	40	Yes	FACW	Number of Dominant Species
·		· ——		That Are OBL, FACW, or FAC:5 (A)
·		· ——		Total Number of Dominant
·				Species Across All Strata: 8 (B)
i		·		Percent of Dominant Species That Are OBL, FACW, or FAC: 62.5% (A/E
				Prevalence Index worksheet:
	40	=Total Cover		Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size: 15-foot radius)				OBL species 40 x 1 = 40
Rosa multiflora	10	Yes	FACU	FACW species 52 x 2 = 104
				FAC species15 x 3 =45
				FACU species 25 x 4 = 100
				UPL species0 x 5 =0
·				Column Totals: 132 (A) 289 (E
				Prevalence Index = B/A = 2.19
· <u></u>				Hydrophytic Vegetation Indicators:
	10	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
erb Stratum (Plot size: _ 5-foot radius _)				X 2 - Dominance Test is >50%
Boehmeria cylindrica	20	Yes	OBL	X 3 - Prevalence Index is ≤3.0 ¹
Lysimachia ciliata	2	No	FACW	4 - Morphological Adaptations ¹ (Provide supporti
Typha angustifolia	15	Yes	OBL	data in Remarks or on a separate sheet)
Rubus	10	Yes		Problematic Hydrophytic Vegetation ¹ (Explain)
Cirsium arvense	10	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
Scirpus atrovirens	5	No	OBL	be present, unless disturbed or problematic.
Solidago canadensis	5	No	FACU	Definitions of Vegetation Strata:
Phalaris arundinacea	10	Yes	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in
				diameter at breast height (DBH), regardless of heigh
0.				Sapling/shrub – Woody plants less than 3 in. DBH
1.				and greater than or equal to 3.28 ft (1 m) tall.
2.				
	77	=Total Cover		Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
Voody Vine Stratum (Plot size: 30-foot radius)		-		
. Vitis riparia	15	Yes	FAC	Woody vines – All woody vines greater than 3.28 ft height.
				Hydrophytic
				Vegetation Present? Yes X No
·	 15	=Total Cover		100 <u>A</u> 100
	10	- I Olai COVEI		

SOIL Sampling Point FA008@WET1

Profile Desci Depth	•	o the de	•	i <mark>ment tl</mark> c Featur		ator or co	onfirm the absence o	f indicators.)
(inches)	Matrix Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	10YR 3/2	100	Color (moist)	70	Турс		Loamy/Clayey	Remarks
3-12	10YR 6/2	90	7.5YR 5/8	10	С	M	Loamy/Clayey	Prominent redox concentrations
12-18	10YR 6/2	60	7.5YR 5/8	30		M	Loamy/Clayey	Prominent redox concentrations
	10YR 3/2	10						
¹ Type: C=Co	ncentration, D=Depl	etion, RN	/I=Reduced Matrix, M	IS=Mas	ked Sand	d Grains.	² Location: F	L=Pore Lining, M=Matrix.
Hydric Soil II			Daharahaa Dalaa	0	(00) (or Problematic Hydric Soils ³ :
Histosol (A1) pedon (A2)		Polyvalue Below		ce (58) (LKK K,		ıck (A10) (LRR K, L, MLRA 149B) rairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa) (LRR R	, MLRA 1		icky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		High Chroma S		-			ie Below Surface (S8) (LRR K, L)
Stratified	Layers (A5)		Loamy Mucky I	Mineral	(F1) (LR	R K, L)	Thin Da	rk Surface (S9) (LRR K, L)
	Below Dark Surface	(A11)	Loamy Gleyed		F2)			nganese Masses (F12) (LRR K, L, R)
	rk Surface (A12)		X Depleted Matrix					nt Floodplain Soils (F19) (MLRA 149B)
	ucky Mineral (S1)		Redox Dark Su					podic (TA6) (MLRA 144A, 145, 149B)
Sandy Gi	eyed Matrix (S4)		Pepleted Dark Redox Depress					ent Material (F21) allow Dark Surface (F22)
	Matrix (S6)		Marl (F10) (LRI		0)			explain in Remarks)
Dark Surf				,,				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
2								
	hydrophytic vegetati ayer (if observed):	on and v	etland hydrology mu	ist be pr	esent, ui	nless dist	urbed or problematic.	
Type:	ayer (ii observed).							
Depth (in	ches):						Hydric Soil Prese	nt? Yes <u>X</u> No
Remarks:								
			-					CS Field Indicators of Hydric Soils,
version 7.0, 2	2015 Effata. (Http://w	ww.nics.	usda.gov/Internet/FS	SE_DOC	JUIVIEINI	S/IIICS 14.	2p2_051293.docx)	

AAETEWAD DETEKNINATI	ION DATA FORM - Northcentral	and Northeast Region
Project/Site: Heritage Wind Farm	City/County: Orleans	Sampling Date: 5/3/19
Applicant/Owner: Apey		State: NY Sampling Point: DP-028
Investigator(s): Mike Bistolo & Trisler	Reteron_ Section, Township, Range:_	canping can
Landform (hillslope, terrace, etc.): Depression		
Subregion (LRR or MLRA): LRR R Lat:	43.139542	Siope (%). U
Soil Map Unit Name: ChA, Churchille silfloa		
Are climatic / hydrologic conditions on the site typical for		
Are Vegetation $\frac{9}{2}$, Soil $\frac{1}{2}$, or Hydrology $\frac{1}{2}$	significantly disturbed? Are "Norma"	ll Circumstances" present? Yes No
Are Vegetation N , Soil N , or Hydrology N	_ naturally problematic? (If needed,	explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	p showing sampling point locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? YesX	No Is the Sampled Area	1.
Hydric Soil Present? Yes 💢	No within a Wetland?	Yes <u> </u>
Wetland Hydrology Present? Yes	No If yes, optional Wetlan	d Site ID: Welland-088
Remarks: (Explain alternative procedures here or in a	separate report.)	
PSS datepoint to Wetlerd-0	49 &	
Referenced in Report as: 1F		
	•	
HYDDOLOGY		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check a		Surface Soil Cracks (B6)
l -a	/ater-Stained Leaves (B9)	✓ Drainage Patterns (B10)
——————————————————————————————————————	quatic Fauna (B13) arl Deposits (B15)	Moss Trim Lines (B16)
	ydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
	xidized Rhizospheres on Living Roots (C3)	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
	resence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
· —	ecent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
	nin Muck Surface (C7)	Shallow Aquitard (D3)
-	ther (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	() ,	FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes NoX D	epth (inches):	
Water Table Present? Yes X No D	epth (inches): 🔗 "	, ,
Saturation Present? Yes X No D	epth (inches):%" Wetland i	lydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well	aerial photos, previous inspections), if ava	ilable:
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, and protos, protosos inspections, it are	
Remarks:		

VEGETATION Coc determine married of plante.				
20 01-		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30-C+ -)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:(A)
2				
				Total Number of Dominant Species Across All Strata: (B)
3				Species Across All Strata: (B)
4				Percent of Dominant Species
				Percent of Dominant Species That Are OBL, FACW, or FAC: (OOO/o (A/B)
5				4.44.44
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov		OBL species x 1 =
1 m A .		- Total Cov	EI	
Sapling/Shrub Stratum (Plot size: 154+ (_	FACW species x 2 =
1. Cornus alba	70	УУ	FACW	FAC species x 3 =
				FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				Coldinii Totals.
4				Prevalence Index = B/A =
5				Trovalorios most
6.				Hydrophytic Vegetation Indicators:
		-		1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
		= Total Cov	er	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5-4- c)				
	35	V	FACW	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
1. Phaloris arundinacea				I
2. Sairpus Cy perinus	30	У	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Cornus albe	20	У	FAW	¹ Indicators of hydric soil and wetland hydrology must
		N	OBL	be present, unless disturbed or problematic.
4. Juneus effusus	19		03	
5				Definitions of Vegetation Strata:
				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
6				at breast height (DBH), regardless of height.
7				
8				Sapling/shrub - Woody plants less than 3 in. DBH
				and greater than or equal to 3.28 ft (1 m) tall.
9				Herb - All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11				
'				Woody vines - All woody vines greater than 3.28 ft in
12				height.
	100	= Total Cov	er	
Woody Vine Stratum (Plot size: 30-4+ ~)				
voody vine stratum (Plot size:)				,
1				
,				Hydrophytic
				Vegetation Present? Yes No
3				Present? Tes_X No
4				
	0	= Total Cov	er	
	-	- Total Cov	——————————————————————————————————————	
Remarks: (Include photo numbers here or on a separate	sneet.)			
				•

Profile Desc	cription: (Describe	to the der	th needed to docu	ment the in	ndicator o	r confirm	the absence	of indicators.)		
Depth	Matrix			x Features						
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹ _	Loc ²	Texture	Remarks		
0-5	10YR Z/						SiL			
5-11	10 yr4/1	95	5 4/2 5/4	_5_	<u>C</u>	M	SICL			
11-20	10 1/24/1	60	7.51/2 C/G	40	<u> </u>	M				
					<u></u>					
¹Type: C=Co	oncentration, D=Dep	letion RM	=Reduced Matrix. M	S=Masked	Sand Grai	ns.	² Location:	PL=Pore Lining, M=Matrix.		
Hydric Soil I			Trouble Managing	- Madrida	-			for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Belov		S8) (LRR	R,		uck (A10) (LRR K, L, MLRA 149B)		
	pipedon (A2)		MLRA 149B; Thin Dark Surfa	,	DD D MII	DA 440D\		Prairie Redox (A16) (LRR K, L, R) ucky Peat or Peat (S3) (LRR K, L, R)		
Black His	n Sulfide (A4)		Loamy Mucky N					urface (S7) (LRR K, L, M)		
Stratified	Layers (A5)		Loamy Gleyed			,		ue Below Surface (S8) (LRR K, L)		
	Below Dark Surface	e (A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)		
	rk Surface (A12)		Redox Dark Su		7)			anganese Masses (F12) (LRR K, L, R)		
	lucky Mineral (S1) leyed Matrix (S4)		Depleted Dark : Redox Depress		()			ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)		
	edox (S5)		Nodox Doproo	10110 (1 0)				rent Material (F21)		
	Matrix (S6)						Very Shallow Dark Surface (TF12)			
Dark Sur	face (S7) (LRR R, N	ILRA 1491	3)				Other (Explain in Remarks)		
³ Indicators of	hydrophytic vegetat	ion and we	tland hydrology mus	t be preser	nt, unless	disturbed	or problematic			
	ayer (if observed):									
Type:	Clan									
Depth (inc	thes):						Hydric Soil	Present? Yes No No		
Remarks:										

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region Project/Site: Heritage Wind Farm City/County: Orleans Sampling Date: 5/31/19 State: NY Sampling Point: DP- ØZG Apex. Applicant/Owner: Investigator(s): Mike Bastedo & Tisken Poleran Section, Township, Range: Town of Barre Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convey Slope (%):0-3 Subregion (LRR or MLRA): LRR R Lat: <u>U3.139364</u> Long: <u>-78.750561</u> Datum: NAD'83 Soil Map Unit Name: ChA, Churchville sitt Loam, O to 2 percent slopes NWI classification: Not mopped 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 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 _____ No X Is the Sampled Area within a Wetland? Hydric Soil Present? Yes _____ No 🗙 Wetland Hydrology Present? Yes _____ No % If yes, optional Wetland Site ID: Remarks: (Explain alternative procedures here or in a separate report.) Udad delepoint for Nethon - DOS Referenced in Report as: 1F **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) ___ Surface Soil Cracks (B6) Surface Water (A1) ___ Water-Stained Leaves (B9) __ Drainage Patterns (B10) ___ High Water Table (A2) ___ Aquatic Fauna (B13) ___ Moss Trim Lines (B16) ___ Saturation (A3) ___ Marl Deposits (B15) __ Dry-Season Water Table (C2) ___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) ___ Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) ___ Saturation Visible on Aerial Imagery (C9) _ Drift Deposits (B3) MA Presence of Reduced Iron (C4) ___ Stunted or Stressed Plants (D1) __ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) ___ Iron Deposits (B5) ___ Thin Muck Surface (C7) Shallow Aquitard (D3) ___ Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) ___ FAC-Neutral Test (D5) Field Observations: Yes ____ No __X Depth (inches): ~ Surface Water Present? Water Table Present? Yes ____ No X Depth (inches): Saturation Present? Yes ____ No __ > Depth (inches): Wetland Hydrology Present? Yes _____ No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No wetland hydrology was observed and the datapoint

VEGETATION — Osc scientific flames of plante.	^ h = al4a	Dominant Indicator	
Tree Stratum (Plot size: 30-4+ c)		Species? Status	Dominance Test worksheet:
			Number of Dominant Species
1			That Are OBL, FACW, or FAC:(A)
2			Total Number of Dominant
3			Species Across All Strata: (B)
4			Percent of Dominant Species
			That Are OBL, FACW, or FAC: (A/B)
5			
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
	0	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15-Ft /			FACW species x 2 =
			FAC species x 3 =
1			FACU species x 4 =
2			UPL species x 5 =
3			Column Totals: (A) (B)
4			Column Totals
			Prevalence Index = B/A =
5			Hydrophytic Vegetation Indicators:
6			1 - Rapid Test for Hydrophytic Vegetation
7			2 - Dominance Test is >50%
		_ = Total Cover	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5-C+ c)	7	V D/	4 - Morphological Adaptations ¹ (Provide supporting
1. Zea mays		Y UPL	data in Remarks or on a separate sheet)
2. Lolium perenne		N FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3			¹ Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
6			at breast height (DBH), regardless of height.
7			O III A A A A A A A A A A A A A A A A A
8			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9			
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11.			Size, and woody plants loss than 5.26 it uni.
			Woody vines - All woody vines greater than 3.28 ft in
12			height.
72 A.	_/5_	_ = Total Cover	
Woody Vine Stratum (Plot size: 30-4 /			
1.			
2			Hydrophytic
2			Vegetation Yes No
3			17000111
4			
	0	_ = Total Cover	·
Remarks: (Include photo numbers here or on a separate	sheet.)		
	,	1	
Vegetation is distribul	Cours	re do top	10th wastaken in an
	1	- (
active agrealities field	7		
,0			
			•

l	cription: (Describe	to the dep	th needed to docur	nent the i	ndicator c	or confirm	n the absence	of indicators.)
Depth _(inches)	Matrix Color (moist)	%	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks
0-3	10/23/2	100						ixemano
3-7	10 YR 3/3	100					CI	
7-10	10/25/1	50	51R5/8	40		n_	<u> </u>	
	10767		10 yr 3/2	10		<u> </u>		
10+		-	10112 12	10	<u></u>	M		Compaction
107								Compaction
		· ——						
								
			···					
¹Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	=Masked	Sand Grai	ins.	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil I	Indicators:							for Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A2)	•	Polyvalue Below MLRA 149B)	/ Surfa c e (S8) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
Black Hi	• •		Thin Dark Surfac					flucky Peat or Peat (S3) (LRR K, L, R)
_	n Sulfide (A4)		Loamy Mucky M			L)		urface (S7) (LRR K, L, M)
	i Layers (A5) i Below Dark Surface	∋ (A11)	Loamy Gleyed N Depleted Matrix					lue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)
Thick Da	ark Surface (A12)	. , .	Redox Dark Sur	face (F6)			Iron-Ma	anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1) leyed Matrix (S4)	-	Depleted Dark S Redox Depression		7)			ont Floodplain Soils (F19) (MLRA 149B)
	edox (S5)	-	Nedox Depressi	uris (Fo)				Spodic (TA6) (MLRA 144A, 145, 149B) arent Material (F21)
	Matrix (S6)	. .					Very S	hallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, N	ILRA 149B)				Other (Explain in Remarks)
		ion and wet	land hydrology must	be preser	nt, unless o	disturbed	or problematic	
	ayer (if observed): Clan							
Type: Depth (inc				•			Hydric Soil	Present? Yes No X
Remarks:							Hyunc Son	Present? TesNo
C_{λ}		dial	51		1			
Juil	s one	Or Sh	nrbel beca	mse	The	-d	e tepoins	t was taken in
				\circ	_		0	wes reasons
On	active a	1512	. Itural	feel.	1 6	\	1	
	-	U			Ca	urn)		

	RM – Northcentral and Northeast Region
Project/Site: Heritage Wind Farm City/	County: Orleans Sampling Date: 5/31/19
Applicant/Owner: Apen	State: NY Sampling Point: DP-030
Investigator(s): Mike Bushedo 4 Tristen Relemon Sect	ion, Township, Range: Town of Barre
Landform (hillslope, terrace, etc.): Degrees ion Local re	elief (concave, convex, none): Slope (%):_ & -5
Subregion (LRR or MLRA): LRR R Lat: 43.138714	
Soil Map Unit Name: ChA, Churshulle Silt loam, 0 to 2 pe	
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation _ N _ , Soil _ N _ , or Hydrology _ (N _ significantly distu	
Are Vegetation _ \(\mathcal{N} \) , Soil _ \(\mathcal{N} \) , or Hydrology _ \(\mathcal{N} \) naturally problem	natic? (If needed, explain any answers in Remarks.)
	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? YesX No	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID: Washard - 00%
Remarks: (Explain alternative procedures here or in a separate report.)	
PFO date point for wetend-000	(
,	
Referenced in Report as: 1F	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave High Water Table (A2) Aquatic Fauna (B13)	_ , ,
X High Water Table (A2) Aquatic Fauna (B13) ✓ Saturation (A3) Marl Deposits (B15)	Moss Trim Lines (B16) Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Od	
_ , •	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	· · · · —
Algal Mat or Crust (B4) Recent Iron Reductio	
Iron Deposits (B5) Thin Muck Surface (C	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rer	· · · · · · · · · · · · · · · · · · ·
Sparsely Vegetated Concave Surface (B8) Field Observations:	➤ FAC-Neutral Test (D5)
Surface Water Present? Yes No Y Depth (inches):	
Water Table Present? Yes X No Depth (inches): 6	
Saturation Present? Yes \rightarrow No Depth (inches): 6'	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	
Describe Necorded Data (stream gauge, monitoring well, acrial prictes, pre	vious irispections), ii available.
Remarks:	

				Y
Tree Stratum (Plot size: 30-C+ ~)	Absolute	Dominant Species?		Dominance Test worksheet:
		∨ ✓	FACW	Number of Dominant Species That Are ORL FACW or FAC: (A)
1. Ulmus anexeana				That Are OBL, FACW, or FAC: (A)
2. Fraxins fennsylvanica		<u> </u>	FACW	Total Number of Dominant
3. Acer Saccharrann	15	<u> </u>	FALW	Species Across All Strata: (B)
4				Percent of Dominant Species 10 19/
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	100	= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15-C+ c				FACW species x 2 =
1. Ulmus americana	35	У	FACW	FAC species x 3 =
2. Cratagus Clus-galli		У	FAC	FACU species x 4 =
•				UPL species x 5 =
3				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
	50	= Total Cov	er	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5-f+ c)	29	V	o A 1	4 - Morphological Adaptations ¹ (Provide supporting
1. Eutrochum macalatum			OBL	data in Remarks or on a separate sheet)
2. Toxicodendron radicans	15_		FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Galium palastre	10	<u>~\</u>	OBL	¹ Indicators of hydric soil and wetland hydrology must
4. Equislam palastre	10	N	FACW	be present, unless disturbed or problematic.
5. Rosa multiflom		N	FACU	Definitions of Vegetation Strata:
	-		17.00	The state of the s
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7				
8				Sapting/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				and greater than or equal to 3.20 it (1 iii) tail.
10				Herb - All herbaceous (non-woody) plants, regardless of
				size, and woody plants less than 3.28 ft tall.
11				Woody vines - All woody vines greater than 3.28 ft in
12				height.
_	60	= Total Cov	er er	
Woody Vine Stratum (Plot size:)				
1				
· · · · · · · · · · · · · · · · · · ·				Hydrophytic /
2				Vegetation No.
3			·	Present? Yes No
4				
	0_	= Total Cov	er er	ı
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: DP-030

Profile Des	cription: (Describe t	to the dep	th needed to docui	ment the i	ndicator	or confirn	the absence	of indicators.)
Depth	Matrix			x Feature				·
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-6	10/122/1	100	·				SiL	Mixed w/ organics
6-12	104841	95	7.5 /2 4/6	_5_	<u></u>	m	SICL	
12-20	10/24/1	50	5YR 6/4	40	<u></u>	M	<u> </u>	
			104242	10	<u>C</u>	M		
	;							
			: '					
¹ Type: C=Co	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ins.	² Location:	PL=Pore Lining, M=Matrix.
Histosol			Polyvalue Below	y Surface /	(SQ) /I DD	D		for Problematic Hydric Soils ³ :
	oipedon (A2)	-	MLRA 149B)		(36) (LKK	κ,		uck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
Black Hi	stic (A3)	_	Thin Dark Surfa	ce (S9) (L l	RR R, ML	RA 149B)		ucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	Loamy Mucky M	lineral (F1)	(LRR K,			urface (S7) (LRR K, L, M)
	Layers (A5)	_	Loamy Gleyed N				Polyvalı	ue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix					ırk Surface (S9) (LRR K, L)
	rk Surface (A12)	_	Redox Dark Sur					nganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)	-	Depleted Dark S		7)			nt Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4) edox (S5)	-	Redox Depressi	ons (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
	Matrix (S6)							rent Material (F21)
	face (S7) (LRR R, ML	-RA 149B)						allow Dark Surface (TF12) Explain in Remarks)
3Indicators of	hydrophytia yagatatia	n and wall	and budgalani,	h		-11-4 -1- · 1		,
Restrictive I	hydrophytic vegetational	n and well	and nydrology must	be preser	nt, uniess	disturbed	or problematic.	
Type:	Clan							
Depth (inc							Hydric Soil P	Present? Yes X No
Remarks:							riyunc son r	resent! res // No
			•					
								1

WEILAND DEIERWINA HON D	A I A FORW - Northcentral and Northeast Region
Project/Site: Heritage Wind Farm	City/County: Orleans Sampling Date: 6/4/19
Applicant/Owner: Apex	State: NY Sampling Point: DP-Q33
	Section, Township, Range: Donat Berre
	Local relief (concave, convex, none): Concave Slope (%):
Subregion (LRR or MLRA): LRR R Lat: 43.14	
Soil Map Unit Name: Ca, Canandargha Sorts	NWI classification: PFS1 E
Are climatic / hydrologic conditions on the site typical for this time	of year? YesX No (If no, explain in Remarks.)
Are Vegetation \mathcal{N} , Soil \mathcal{N} , or Hydrology \mathcal{N} signific	antly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation \mathcal{L} , Soil \mathcal{L} , or Hydrology \mathcal{L} natural	ly problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ving sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes 8 No	within a Wetland? Yes No
Wetland Hydrology Present? Yes ★ No	If yes, optional Wetland Site ID: Detland - 014
Remarks: (Explain alternative procedures here or in a separate	report.)
PFD delepoint for wetlend- co	14
140 00000000000000000000000000000000000	
Referenced in Report as: 1K	i
referenced in report as. The	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap	ply) Surface Soil Cracks (B6)
	ned Leaves (B9) Drainage Patterns (B10)
★ High Water Table (A2)	— · · · · · · · · · · · · · · · · · · ·
X Saturation (A3) Mari Depo	 ,
	Sulfide Odor (C1) Crayfish Burrows (C8) hizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
· · · · · · · · · · · · · · · · · · ·	thizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) of Reduced Iron (C4) Stunted or Stressed Plants (D1)
	n Reduction in Tilled Soils (C6) Geomorphic Position (D2)
1	Surface (C7) Shallow Aquitard (D3)
	lain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _X Depth (inc	
Water Table Present? Yes X No Depth (inc	
Saturation Present? Yes No Depth (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections), if available:
· · ·	
Remarks:	
	,
,	
	·
	,

Tree Stratum (Plot size: 30-47)	Absolute			Dominance Test worksheet:
		Species?	Status	Number of Dominant Species
1. Populus deltaites	70	У	FAC	That Are OBL, FACW, or FAC:(A)
2. Acer saccharinum		У	FACW	
				Total Number of Dominant
3. Ulmus americana	<u>40</u>	<u>y</u>	FACW	Species Across All Strata: (B)
4				Percent of Deminant Species
1				Percent of Dominant Species That Are OBL, FACW, or FAC: 108% (A/B)
5				That Ale Obe, I AOV, OI I AO.
6	4.5			Barriela de la descripción de
1				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	170	= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15-ft)				FACW species x 2 =
	-		_	
1. Ulmas americano	_ 30	<u> </u>	FACW	FAC species x 3 =
2. Acer Succharinum	7.0		(74.)	FACU species x 4 =
			PAW	UPL species x 5 =
3				
4				Column Totals: (A) (B)
*-				B
5				Prevalence Index = B/A =
i e e e e e e e e e e e e e e e e e e e				Hydrophytic Vegetation Indicators:
6				• • •
7				1 - Rapid Test for Hydrophytic Vegetation
	50	= Total Cov	or	∠ 2 - Dominance Test is >50%
ι _σ Λ.		- Total Cov	CI	3 - Prevalence Index is ≤3.01
Herb Stratum (Plot size: 5-ft)				4 - Morphological Adaptations¹ (Provide supporting
1. Fraxinus pennsylvanica	10	У	FACW	data in Remarks or on a separate sheet)
				, , , , , , , , , , , , , , , , , , , ,
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3				¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
				Sapling/shrub – Woody plants less than 3 in. DBH
8				and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb - All herbaceous (non-woody) plants, regardless of
				size, and woody plants less than 3.28 ft tall.
11				NY 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
12				Woody vines – All woody vines greater than 3.28 ft in
				height.
,	10	= Total Cove	er	
Woody Vine Stratum (Plot size: 39-ft /)				
1,				
2				Hydrophytic
				Vegetation Present? Yes No
3				Present? TesNO
4				
	0	7-1-10		į.
		= Total Cove	er	
Remarks: (Include photo numbers here or on a separate s	sheet.)			
		,		

	Matrix	to the de	pth needed to docur	ment the in	dicator	or confirm	the absence	of indicators.)
epth nches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	_Loc ²	Texture	Remarks
3-0								Organies
)-6	10 ye 4/,	40	7.51/25/8	20	C	m	C	
05.5	10/24/1	60	10 YR5/1	20	\overline{C}	m	C	
			2.5466	io	Ċ	m		
	***		5484/4	10	C	m		
				•				
		· 			·			
	·							
								,

			******					<u> </u>
pe: C=Coi	ncentration, D=Depl	letion, RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	ins.	² Location	: PL=Pore Lining, M=Matrix.
dric Soil In	ndicators:							for Problematic Hydric Soils ³ :
Histosol ((A1) ipedon (A2)		Polyvalue Belov MLRA 149B)		58) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
Black Hist			Thin Dark Surfa		R R, ML	RA 149B)		flucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Loamy Mucky M	fineral (F1)			Dark S	surface (S7) (LRR K, L, M)
	Layers (A5) Below Dark Surface	. (Δ11)	Loamy Gleyed I Depleted Matrix					llue Below Surface (S8) (LRR K, L)
	k Surface (A12)	(A11)						ark Surface (S9) (LRR K, L)
Thick Dar			Redux Dark Sur	race (F6)			Iron-Ma	anganese Masses (F12) (LRR K. L. F
	ucky Mineral (S1)		Redox Dark Sur Depleted Dark S)			
Sandy Mu Sandy Gle	ucky Mineral (S1) eyed Matrix (S4)			Surface (F7))		Piedmo	ont Floodplain Soils (F19) (MLRA 149 Spodic (TA6) (MLRA 144A, 145, 149 l
Sandy Mu Sandy Gle Sandy Re	ucky Mineral (S1) eyed Matrix (S4) edox (S5)		Depleted Dark S	Surface (F7))		Piedmo Mesic : Red Pa	ont Floodplain Soils (F19) (MLRA 149 Spodic (TA6) (MLRA 144A, 145, 149) arent Material (F21)
Sandy Mu Sandy Gle Sandy Re Stripped M	ucky Mineral (S1) eyed Matrix (S4)	ILRA 1491	Depleted Dark S Redox Depressi	Surface (F7))		Piedmo Mesic : Red Pa Very S	anganese Masses (F12) (LRR K, L, R ont Floodplain Soils (F19) (MLRA 149 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedmo Mesic : Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 149 Spodic (TA6) (MLRA 144A, 145, 149 l arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedmo Mesic : Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 149 Spodic (TA6) (MLRA 144A, 145, 149I arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 148 Spodic (TA6) (MLRA 144A, 145, 149) arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedmo Mesic : Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 149 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 148 Spodic (TA6) (MLRA 144A, 145, 149) arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 148 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 145 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 145 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 145 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 144 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa icators of h trictive La ype:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 144 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 145 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 145 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 145 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 145 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 145 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 145 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)
Sandy Mu Sandy Gle Sandy Re Stripped M Dark Surfa dicators of h strictive La Type:	ucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):		Depleted Dark S Redox Depressi	Surface (F7) ions (F8)		disturbed	Piedme Mesic Mesic Red Pa Very S Other (ont Floodplain Soils (F19) (MLRA 145 Spodic (TA6) (MLRA 144A, 145, 149 arent Material (F21) hallow Dark Surface (TF12) (Explain in Remarks)

WEILAND DETERMINATION DATE	A FORM - Northcentral and Northeast	Region
Project/Site: Heritage Wind Farm	City/County: Orleans	Sampling Date: 6/4/19
Applicant/Owner: Apex	State: NY	Sampling Point: DP- 034
	Section, Township, Range: Town of Bu	_ camping rount
Landform (hillslope, terrace, etc.): Toeslope L		
Subregion (LRR or MLRA): LRR R Lat: 43.1479		
Soil Map Unit Name: LK, Lakemont Silty Clay lown, O h		
Are climatic / hydrologic conditions on the site typical for this time of y		
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil or Hydrology naturally p	problematic? (If needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area	
Hydric Soil Present? Yes X No	within a Wetland? Yes	
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID: Wet	end-014
Remarks: (Explain alternative procedures here or in a separate rep	ort.)	
Drun at solot a getto de	9/1/	
PEM octopolit for Wetland	019	
Referenced in Report as: 1K		
Referenced in Report as. 118		
	77-00-00-00-00-00-0	
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)) Surface Soil (Cracks (B6)
Surface Water (A1) Water-Stained		terns (B10)
High Water Table (A2) Aquatic Fauna	· · · · · · · · · · · · · · · · · · ·	
Saturation (A3) Marl Deposits		Vater Table (C2)
Water Marks (B1)Sediment Deposits (B2)→ Hydrogen SulfOxidized Rhize		ows (C8) sible on Aerial Imagery (C9)
Drift Deposits (B3)	- , , —	ressed Plants (D1)
,	eduction in Tilled Soils (C6)	
Iron Deposits (B5) Thin Muck Sur		
Inundation Visible on Aerial Imagery (B7) Other (Explain		phic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	<u></u> FAC-Neutral ⊂	Test (D5)
Field Observations:		
Surface Water Present? Yes NoX Depth (inches	•	
Water Table Present? Yes No X Depth (inches		Y
Saturation Present? Yes No Depth (inches (includes capillary fringe)	s): Wetland Hydrology Present	? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:	
Remarks:		11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		;

VEGETATION - Ose scientific names of plants	•			Sampling Point,
710	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size: 30-Ft ~)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1,				That Are OBL, FACW, or FAC:(A)
2				
				Total Number of Dominant Species Across All Strata: (B)
3		<u> </u>		
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Barrier and Indonesia de la contra
				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	<u> </u>	= Total Cov	/er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15-ft /				FACW species x 2 =
1. Salix nigre	5	У	OBL	FAC species x 3 =
				FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6				, , , ,
7				1 - Rapid Test for Hydrophytic Vegetation
	5	= Total Co	ver .	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0¹
1. Glycene strate	90	У	OBL	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2. Egustum acvense		\sim	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
o IS		\sim	FACW	
3. Eupetorium per Polistum			TACO	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				be present, amos distorbed of presistants.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
7				Outlined to the Management land them 2 in DRH
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb – All herbaceous (non-woody) plants, regardless of
				size, and woody plants less than 3.28 ft tall.
11				Woody vines - All woody vines greater than 3.28 ft in
12				height.
	100	= Total Co	ver	
Woody Vine Stratum (Plot size: 30-4+1)				
, interest in the second of th				
1				Hydrophytic
2				d sai maa lasim
3				Present? Yes No
4				
	0	= Total Co		
		= Total Co	vei	
Remarks: (Include photo numbers here or on a separate	sneet.)			
Vegetation is diesturbed be	cave	the	datas	and was taken in an
			7	
agricultural field				
U				

Profile Des	cription: (Describe	to the de	oth needed to docu	ment the i	ndicator	or confirm	the absence of	indicators.)	
Depth (inches)	Matrix			x Features		. 2	- .		
(inches)	Color (moist)		7.5 Ye 3/3		Type ¹	Loc²	Texture	Remarks	
0-6		90		10		PL	<u>CL</u>		
6-10	7.544/1	<u>70 </u>	5 yr 3/4	30	<u>_</u>	M			
10-10	7.5/R5/8	<u>60</u>	5 YR 444	20	$\underline{\nu}$	M	<u> </u>		
			10/R5/1	20	<u>D</u>	M			
									
									
			·····						
									
¹ Type: C=Co	oncentration, D=Depl	etion, RM:	Reduced Matrix, MS	S=Masked	Sand Gra	ins.		L=Pore Lining, M=Matrix.	
Histosol			Polyvalue Belov	u Surface (C0\ /I DD	В		Problematic Hydric Soils ³ :	
-	oipedon (A2)		MLRA 149B)		30) (LKK	κ,		k (A10) (LRR K, L, MLRA 149B) irie Redox (A16) (LRR K, L, R)	
Black His	• •		Thin Dark Surfa				5 cm Muc	ky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4) Layers (A5)		Loamy Mucky M Loamy Gleyed M	lineral (F1) Matrix (F2)	(LRR K,	L)		ace (S7) (LRR K, L, M) Below Surface (S8) (LRR K, L)	
Depleted Below Dark Surface (A11)X Depleted Matrix (F3)							Thin Dark Surface (S9) (LRR K, L)		
Thick Dark Surface (A12) Redox Dark Surface (F6)								ganese Masses (F12) (LRR K, L, R)	
	leyed Matrix (S4)		Depleted Dark S Redox Depressi)			Floodplain Soils (F19) (MLRA 149B) odic (TA6) (MLRA 144A, 145, 149B)	
Sandy R	edox (S5)			()				nt Material (F21)	
	Matrix (S6)	L DA 4405						low Dark Surface (TF12)	
Daik Gui	face (S7) (LRR R, M	LKA 149E	·)				Other (Exp	olain in Remarks)	
³ Indicators of	hydrophytic vegetation	on and we	tland hydrology must	be presen	t, unless	disturbed o	or problematic.		
	ayer (if observed):								
Type: Depth (inc	hoes: b						Uhadata Osu Osa	X N	
Remarks:	nes)						Hydric Soil Pre	esent? Yes < \ No	
			•						
						1.			

WETLAND DETERMINATION DATA FO	RM – Northcentral and Northeast Region				
Project/Site: Heritage Wind Farm City/	County: Orleans Sampling Date: 6/4/M				
Applicant/Owner: Apex	State: NY Sampling Point: DP- 0.35				
Investigator(s): Mike Bushes & Kyle Kozlowski Sect	ion, Township, Range: Town of Barre				
	lief (concave, convex, none): Convex Slope (%): 3-8				
Subregion (LRR or MLRA): LRR R Lat: 43.14862 3	1 ong: -78.225331 Datum: NAD'83				
Soil Man Unit Name: ChA. Churchville Silt Com. O to 7 Dag	rent slopes NWI classification: Not mapped				
Are climatic / hydrologic conditions on the site typical for this time of year?					
Are Vegetation \underline{y} , Soil $\underline{\lambda}$, or Hydrology $\underline{\lambda}$ significantly disturbed by Significant di					
Are Vegetation, Soil	Are Normal Circumstances present? Tes 77 No				
Are vegetation, Soil to Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing san	mpling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area				
Hydric Soil Present? Yes No X	within a Wetland? Yes No X				
Wetland Hydrology Present? Yes No >	If yes, optional Wetland Site ID:				
Remarks: (Explain alternative procedures here or in a separate report.)					
Upland donte point for Vetre	rd-014				
Referenced in Report as: 1K					
•					
HYDROLOGY					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water-Stained Leave	Surface Soil Cracks (B6)				
High Water Table (A2) Aquatic Fauna (B13)	· · · · · · · · · · · · · · · · · ·				
Saturation (A3) Marl Deposits (B15)					
Water Marks (B1) Hydrogen Sulfide Od					
	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3) Presence of Reduced	i i i i i i i i i i i i i i i i i i i				
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)					
Iron Deposits (B5) Thin Muck Surface (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Ren	<u> </u>				
Inundation Visible on Aerial Imagery (B7) Other (Explain in Ren Sparsely Vegetated Concave Surface (B8)	marks) Microtopographic Relief (D4) FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes No Depth (inches): -	·				
Water Table Present? Yes No Depth (inches): -					
Saturation Present? Yes No Depth (inches): -	Wetland Hydrology Present? Yes No				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:				
	,,				
Remarks:					
Normand.					
No wetrand hallology was	is observal at the date point				
\sim	Company of the Mark Jank				

VEGETATION - Use scientific flames of plants.				
20 / 1		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30-4+ -)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5				1110(110 002, 1710), 011710
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Co		OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15-ft c)				FACW species x 2 =
				FAC species x 3 =
1				FACU species x 4 =
2				UPL species x 5 =
3				
4				Column Totals: (A) (B)
				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				l
	\mathcal{Q}	= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5-C+ C)				3 - Prevalence Index is ≤3.0¹
1. Lolium perenne	60		FACU	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2. Danus carofa			NI	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Taraxacum officiale		AJ	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Taraxacum perstinete	1.0	<u>,</u>		be present, unless disturbed or problematic.
4. Euthemic grammifolier 5. Echinocophis laborta	10		- PAL	Definitions of Versitation Strates
5. Echihecytis lobata	_5_	_//	FALW	Definitions of Vegetation Strata:
6				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub - Woody plants less than 3 in. DBH
				and greater than or equal to 3.28 ft (1 m) tall.
9				Herb - All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12.				height.
·	80	= Total Co	ver	
Woody Vine Stratum (Plot size: 30-f+ ^)				
voody vine Stratum (Plot size:)				
1				Livelianhytia
2				Hydrophytic Vegetation
3.				Present? Yes No
4				
		= Total Co		ı
Demorker (Include photo numbers here or on a congrete	shoot)	_ = TOTAL CO		
Remarks: (Include photo numbers here or on a separate				
Vegetation is disturbed because	e Ho	de fo	. <i>£</i> √00	us taken in an althe
_	100	, , , , , ,	, , ,	
agricultural frew				
Dances consta is not indexed	50	it w	on like	t be used for any
Calculations				
(alm lation)				

Processor of Problematic Matrix (As) Deleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Depleted Matrix (S4) Sandy Redox (S5) Stripped Matrix (S4) Dark Surface (S7) (LRR R, MLRA 149B) Stripped Matrix (S4) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Stripped Matrix (S4) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky M	(inches)	Matrix		Red	ox Features		_			
ppe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Concentration		Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²		Rema	arks
rpe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. dric Soil Indicators: Histosoil (A1) Histic Epipedon (A2) Black Histic (A3) Stratified Layers (A5) Depleted Below Dark Surface (S9) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, L) Depleted Below Dark Surface (S7) (LRR K, L, M) Depleted Below Dark Surface (S9) Thin Dark Surface (S9) Thin Dark Surface (S9) Thin Dark Surface (S7) Thin Dark Surface (S7) Thin Dark Surface (S7) Thin Dark Surface (S9) Thin Dark Surface (S9) Thin Dark Surface (S7) Thin Dark Surface (S9) T	9-10		100					<u>CL</u>		
ppe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. dric Soll Indicators: Histosol (A1) Histosol (A1) Histosol (A2) Histosol (A2) Black Histic (A3) Histosol (A3) Stratified Layers (A5) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Redox Dark Surface (F7) Sandy Mucky Mineral (F1) (LRR K, L) Polyvalue Below Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8) Dark Surface (S7) (LRR K, L) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) And Yedox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	0-20	104R 3/1	80	7.5 YR 5/6	10	_C	M	CL		
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dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (if observed): Type: N/A			I RA 149R	n						
strictive Layer (if observed): Type: N/A	_ Dain Oan	acc (or) (ERRY II)	LIVA 1400	,				Other ((Explain in Nemarks)	
Туре:		hd	on and we	tland hydrology mu	st be preser	nt, unless	disturbed of	or problematio		

Depth (inches): Hydric Soil Present? Yes No										\
	strictive La Type: Depth (inch	ayer (if observed): N/iA						Hydric Soil	Present? Yes	No ×
	strictive La Type: Depth (inch	ayer (if observed): N/iA						Hydric Soil	Present? Yes	No <u>~</u>
	strictive La Type: Depth (inch	ayer (if observed): N/iA						Hydric Soil	Present? Yes	No ×
	strictive La Type: Depth (inch	ayer (if observed): N/iA						Hydric Soil	Present? Yes	No X
	strictive La Type: Depth (inch	ayer (if observed): N/iA						Hydric Soil	Present? Yes	No ×
	strictive La Type: Depth (inch	ayer (if observed): N/iA						Hydric Soil	Present? Yes	No X
	strictive La Type: Depth (inch	ayer (if observed): N/iA						Hydric Soil	Present? Yes	No *
	strictive La Type: Depth (inch	ayer (if observed): N/iA						Hydric Soil	Present? Yes	No X
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	strictive La Type: Depth (inch	ayer (if observed): N/iA						Hydric Soil	Present? Yes	No ×

Project/Site: Heritage Wind	City/County: Orleans County Sampling Date: 04-29-2019					
Applicant/Owner: Heritage Wind, LLC (Apex Clean Energy)	State: NY Sampling Point: JME1U					
Investigator(s): JM,JK	Section, Township, Range: Town of Barre					
Landform (hillside, terrace, etc.): Flat Local	relief (concave, convex, none): None Slope %: 0-5					
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.202636	Long: -78.119954 Datum: WGS84					
Soil Map Unit Name: Churchville silt loam, 0 to 2 percent slopes	NWI classification: UPL					
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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 Hydrologysignificantly distur						
Are Vegetation, Soil, or Hydrologynaturally problems	atic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.					
Lindrania da Variatatian Processo	In the Complet Avec					
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No X No X	Is the Sampled Area within a Wetland? Yes No X					
Wetland Hydrology Present? Yes No X	within a Wetland? Yes No _X If yes, optional Wetland Site ID:					
	il yes, optional wetiand Site ib.					
Remarks: (Explain alternative procedures here or in a separate report.)						
	Referenced in Report as: 3J					
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)					
Surface Water (A1) Water-Stained Leaves (
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)					
Saturation (A3) — Marl Deposits (B15)	Dry-Season Water Table (C2)					
Water Marks (B1) Hydrogen Sulfide Odor (· · · · · · · · · · · · · · · · · · ·					
Sediment Deposits (B2) Oxidized Rhizospheres						
Presence of Reduced Ir	——					
Algal Mat or Crust (B4) Recent Iron Reduction in						
Iron Deposits (B5) Thin Muck Surface (C7)						
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remar						
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)					
Field Observations:						
Surface Water Present? Yes No Depth (inches):						
Water Table Present? Yes No Depth (inches):						
Saturation Present? Yes No Depth (inches):	: Wetland Hydrology Present? Yes No _X_					
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:					
Remarks:						

VEGETATION – Use scientific names of plants. Sampling Point: JME1U Absolute Dominant Indicator Tree Stratum (Plot size: 30-foot radius) % Cover Species? Status **Dominance Test worksheet:** 1. **Number of Dominant Species** 2. That Are OBL, FACW, or FAC: 0 (A) 3. Total Number of Dominant 4. Species Across All Strata: 1 (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 0.0% (A/B) Prevalence Index worksheet: Multiply by: =Total Cover Total % Cover of: Sapling/Shrub Stratum (Plot size: 15-foot radius) OBL species x 1 = **FACW** species 0 x 2 = 0 0 2. FAC species x 3 = 0 40 3. FACU species x 4 = 160 0 4. UPL species x 5 = 5. Column Totals: 40 160 Prevalence Index = B/A = 4.00 6. **Hydrophytic Vegetation Indicators:** 7. 1 - Rapid Test for Hydrophytic Vegetation =Total Cover 2 - Dominance Test is >50% Herb Stratum (Plot size: 5-foot radius) 1. Solidago canadensis 40 Yes **FACU** 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations¹ (Provide supporting 2. data in Remarks or on a separate sheet) 3. 4. Problematic Hydrophytic Vegetation¹ (Explain) 5. ¹Indicators of hydric soil and wetland hydrology must 6. be present, unless disturbed or problematic. 7. **Definitions of Vegetation Strata:** 8. Tree - Woody plants 3 in. (7.6 cm) or more in 9. 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 40 =Total Cover of size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: 30-foot radius) Woody vines - All woody vines greater than 3.28 ft in 1. height. 2. Hydrophytic 3. Vegetation Yes Present? No X =Total Cover Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point JME1U

	•	the dep				tor or co	onfirm the absence of in	ndicators.)
Depth	Matrix			x Featur		. 2	- .	5
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
								_
¹Type: C=Co	ncentration, D=Deple	tion RM=	Reduced Matrix N	MS=Masl	ked Sand	Grains	² Location: PL=	Pore Lining, M=Matrix.
Hydric Soil I	•	tion, raw	Troduced Matrix, N	ivido	itou ourio	oraino.		Problematic Hydric Soils ³ :
Histosol (Polyvalue Belo	w Surfac	ce (S8) (I	RR R		(A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	_	MLRA 149B		CC (OO) (I	-1414 14,		ie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa	•	(I RR R	MI RA 1		y Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	-	High Chroma S		-			Below Surface (S8) (LRR K, L)
	Layers (A5)	-	Loamy Mucky					Surface (S9) (LRR K, L)
	Below Dark Surface	_ (Δ11)	Loamy Gleyed			· i · · · · · · ·		nese Masses (F12) (LRR K, L, R)
	rk Surface (A12)	(A11)	Depleted Matri		12)			Floodplain Soils (F19) (MLRA 149B)
	ucky Mineral (S1)	-	Redox Dark Su		·6)			dic (TA6) (MLRA 144A, 145, 149B)
	eyed Matrix (S4)	-	Depleted Dark					Material (F21)
	edox (S5)	-	Redox Depress					w Dark Surface (F22)
	Matrix (S6)	-	Marl (F10) (LR		3)			ain in Remarks)
		-	Mail (F10) (LK	K K, L)			Other (Expi	alli ili Nelliaiks)
Dark Sur	lace (ST)							
3Indicators of	hydrophytic yegototic	on and wa	tland hydrology mu	ict bo pr	occut ur	ologo dieti	urbad or problematic	
	hydrophytic vegetation ayer (if observed):	on and we	tiand hydrology mit	ist be bi	eseni, ui	iless disti	urbed of problematic.	
	ayer (ii observeu).							
Type:								
Depth (in	ches):						Hydric Soil Present?	Yes No <u>X</u>
Remarks:						'		
								Field Indicators of Hydric Soils,
Version 7.0, 2	2015 Errata. (http://w\	ww.nrcs.u	sda.gov/Internet/F	SE_DOC	CUMENT	S/nrcs142	2p2_051293.docx)	

Project/Site: Heritage Wind	City/County: Orleans County Sampling Date: 4/29/2019				
Applicant/Owner: Heritage Wind, LLC (Apex Clean Energy)	State: NY Sampling Point: JME1W				
Investigator(s): JM, JK	Section, Township, Range: Town of Barre				
Landform (hillside, terrace, etc.): Floodplain Local	I relief (concave, convex, none): Concave Slope %: 0-5				
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.202456	Long: -78.119931 Datum: WGS84				
Soil Map Unit Name: Churchville silt loam, 0 to 2 percent slopes	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 distur					
Are Vegetation, Soil, or Hydrology naturally problems					
	npling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes X No Yes	Is the Sampled Area within a Wetland? Yes X No				
Wetland Hydrology Present? Yes X No No	If yes, optional Wetland Site ID:				
Remarks: (Explain alternative procedures here or in a separate report.) Heavy rains cased flooding in are during delineation	Referenced in Report as: 3J				
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)				
X Surface Water (A1) Water-Stained Leaves (
X High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)				
X Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)				
Water Marks (B1) Hydrogen Sulfide Odor					
Sediment Deposits (B2) Oxidized Rhizospheres	<u> </u>				
Drift Deposits (B3) Presence of Reduced Ir					
Algal Mat or Crust (B4) Recent Iron Reduction i					
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3)					
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remains)					
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes X No Depth (inches)): <u>10</u>				
Water Table Present? Yes X No Depth (inches)): 0				
Saturation Present? Yes X No Depth (inches)): 0 Wetland Hydrology Present? Yes X No				
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:				
Remarks:					
•					

VEGETATION – Use scientific names of plants. Sampling Point:

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:					
2.				Number of Dominant Species That Are OBL, FACW, or FAC:(A)					
3. 4.				Total Number of Dominant Species Across All Strata: 2 (B)					
5. 6.		·		Percent of Dominant Species That Are OBL, FACW, or FAC:100.0% (A/B)					
7.				Prevalence Index worksheet:					
		=Total Cover		Total % Cover of: Multiply by:					
Sapling/Shrub Stratum (Plot size: 15-foot radius)				OBL species0 x 1 =0					
1.				FACW species 70 x 2 = 140					
2.				FAC species 20 x 3 = 60					
3.		·		FACU species 0 x 4 = 0					
4.	•			UPL species 0 x 5 = 0					
5.				Column Totals: 90 (A) 200 (B)					
6.				Prevalence Index = B/A = 2.22					
7.				Hydrophytic Vegetation Indicators:					
		=Total Cover		1 - Rapid Test for Hydrophytic Vegetation					
<u>Herb Stratum</u> (Plot size: 5-foot radius)		•		X 2 - Dominance Test is >50%					
1. Cornus racemosa	10	No	FAC	X 3 - Prevalence Index is ≤3.0 ¹					
Phalaris arundinacea	60	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting					
Symphyotrichum novi-belgii	10	No	FACW	data in Remarks or on a separate sheet)					
4				Problematic Hydrophytic Vegetation ¹ (Explain)					
5. 6.		·		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
7.				Definitions of Vegetation Strata:					
8.				Trans. We asked back 2 in (7.0 and a mass in					
9.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.					
10 11.		·		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.					
12.									
	80	=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.					
Woody Vine Stratum (Plot size: 30-foot radius)		•		Woody vines – All woody vines greater than 3.28 ft in					
1. <u>Vitis riparia</u>	10	Yes	FAC	height.					
2.				Hydrophytic					
3.				Vegetation					
4.				Present?					
	10	=Total Cover							
Remarks: (Include photo numbers here or on a separ	rate sheet.)								

JME1W

SOIL Sampling Point JME1W

Profile Desci	ription: (Describe to	the de	pth needed to docu	ment th	ne indica	ator or c	confirm the absence of indicators.)
Depth	Matrix		Redox	(Featur	es		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-6	10yr 3/2	90	7.5yr 5/4	10	D	М	Loamy/Clayey
6-16	5yr 5/2	60	5yr 4/4	30	С	M	Loamy/Clayey Distinct redox concentrations
	10yr 3/2	10					
							·
							·
17			4-Dadward Matrix M				21 and in Plant Lining Managin
		tion, Ri	M=Reduced Matrix, M	i5=iviasi	ked Sand	Grains.	
Hydric Soil II			Dalamaka Dalam		(CO) (Indicators for Problematic Hydric Soils ³ :
Histosol (•		Polyvalue Belov		ce (58) (I	LKK K,	
	pedon (A2)		MLRA 149B)				? Coast Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa		-		
	Sulfide (A4)		High Chroma S				Polyvalue Below Surface (S8) (LRR K, L)
Stratified	Layers (A5)		Loamy Mucky N	Mineral ((F1) (LR I	R K, L)	Thin Dark Surface (S9) (LRR K, L)
X Depleted	Below Dark Surface	(A11)	Loamy Gleyed	Matrix (F2)		Iron-Manganese Masses (F12) (LRR K, L, R)
Thick Da	rk Surface (A12)		X Depleted Matrix	k (F3)			Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Mu	ucky Mineral (S1)		Redox Dark Su	rface (F	6)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	eyed Matrix (S4)		Depleted Dark				Red Parent Material (F21)
Sandy Re			Redox Depress				Very Shallow Dark Surface (F22)
	Matrix (S6)		Marl (F10) (LRF	`	-,		Other (Explain in Remarks)
Dark Surf				· · · · · · · · · · · · · · · · · · ·			
Baik Suii	ace (GT)						
		n and v	vetland hydrology mu	st be pr	esent, ur	nless dis	sturbed or problematic.
Type:	ayer (if observed):						
Depth (in	ches):						Hydric Soil Present? Yes X No
Remarks:							
	n is revised from Nort	hcentra	l and Northeast Regi	onal Su	pplemen	t Version	n 2.0 to include the NRCS Field Indicators of Hydric Soils,
			.usda.gov/Internet/FS				
	, .		•	_			· -

Project/Site: Heritage Wind	City/County: Orleans County Sampling Date: 4/29/2019
Applicant/Owner: Heritage Wind, LLC (Apex Clean Energy)	State: NY Sampling Point: JME2W
Investigator(s): JM,JK	Section, Township, Range: Town of Barre
Landform (hillside, terrace, etc.): Floodplain Local	relief (concave, convex, none): Concave Slope %: 0-5
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.202509	Long: -78.120064 Datum: WGS84
Soil Map Unit Name: Churchville silt loam, 0 to 2 percent slopes	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 distur	
Are Vegetation, Soil, or Hydrologynaturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
	Referenced in Report as: 3J
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
X Surface Water (A1) X Water-Stained Leaves (
X High Water Table (A2) Aquatic Fauna (B13)	X Moss Trim Lines (B16)
X Saturation (A3) — Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor	
Sediment Deposits (B2) Oxidized Rhizospheres	
Drift Deposits (B3) Presence of Reduced Ir	
Algal Mat or Crust (B4) Recent Iron Reduction in	
Iron Deposits (B5) Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remai	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inches)	
Water Table Present? Yes X No Depth (inches)	
Saturation Present? Yes X No Depth (inches)	:5 Wetland Hydrology Present? Yes X No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	
incinario.	

 VEGETATION – Use scientific names of plants.
 Sampling Point:

 JME2W

<u>Tree Stratum</u> (Plot size: <u>30-foot radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:				
1				Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)				
3. 4.				Total Number of Dominant Species Across All Strata: 2 (B)				
5 6				Percent of Dominant Species That Are OBL, FACW, or FAC:100.0% (A/B)				
7.				Prevalence Index worksheet:				
		=Total Cover		Total % Cover of: Multiply by:				
Sapling/Shrub Stratum (Plot size: 15-foot radius)		'		OBL species 0 x 1 = 0				
1.				FACW species 0 x 2 = 0				
2.				FAC species 115 x 3 = 345				
3.				FACU species 0 x 4 = 0				
4.				UPL species 0 x 5 = 0				
5.				Column Totals: 115 (A) 345 (B)				
				Prevalence Index = B/A = 3.00				
7			-	Hydrophytic Vegetation Indicators:				
<i>1.</i>		=Total Cover		1 - Rapid Test for Hydrophytic Vegetation				
Llock Stratum (Diatoiza: 5 faat radius)		- Total Gove.		X 2 - Dominance Test is >50%				
Herb Stratum (Plot size: 5-foot radius)	400	Voo	5 40	$\frac{X}{X}$ 2 - Dominance Test is >50% $\frac{X}{X}$ 3 - Prevalence Index is $\leq 3.0^{1}$				
1. Cornus racemosa	100	Yes	FAC	l 				
3.				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
4.				Problematic Hydrophytic Vegetation ¹ (Explain)				
5				¹ Indicators of hydric soil and wetland hydrology must				
6				be present, unless disturbed or problematic.				
7				Definitions of Vegetation Strata:				
8				Tree – Woody plants 3 in. (7.6 cm) or more in				
9.				diameter at breast height (DBH), regardless of height.				
10.				Sapling/shrub – Woody plants less than 3 in. DBH				
11.				and greater than or equal to 3.28 ft (1 m) tall.				
12.								
	100	=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
Woody Vine Stratum (Plot size: 30-foot radius)				Woody vines – All woody vines greater than 3.28 ft in				
1. Vitis riparia	15	Yes	FAC	height.				
2				United the discountry of the state of the st				
3				Hydrophytic Vegetation				
4				Present? Yes X No				
	15	=Total Cover						
Remarks: (Include photo numbers here or on a separ	ate sheet.)	,						
*								

SOIL Sampling Point JME2W

		o the de				ator or co	onfirm the absence o	f indicators.)
Depth (inches)	Matrix	%		k Featur		Loc ²	Toytura	Domorko
(inches)	Color (moist)		Color (moist)	<u>%</u>	Type ¹	LOC	Texture	Remarks
0-10	10YR 3/2	100					Loamy/Clayey	
10-18	10YR 6/2	60	5YR 5/6	30	<u>C</u>	<u>M</u>	Loamy/Clayey	Prominent redox concentrations
	10YR 3/2	10						
								
¹ Type: C=Co	ncentration, D=Deple	etion, RN	/I=Reduced Matrix, M	IS=Mas	ked Sand	d Grains.		L=Pore Lining, M=Matrix.
Hydric Soil Ir			5 5.		(00) (or Problematic Hydric Soils ³ :
Histosol (•		Polyvalue Belo		ce (S8) (LKK K,		roirio Rodov (A16) (LRR K. L. R.)
Black His	pedon (A2)		Thin Dark Surfa		(I RR R	MI RA 1		rairie Redox (A16) (LRR K, L, R) ucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		High Chroma S		-		· —	e Below Surface (S8) (LRR K, L)
	Layers (A5)		Loamy Mucky I					k Surface (S9) (LRR K, L)
	Below Dark Surface	(A11)	Loamy Gleyed			· · · · · · , — /		nganese Masses (F12) (LRR K, L, R)
	rk Surface (A12)	(, , , ,	X Depleted Matrix		/			nt Floodplain Soils (F19) (MLRA 149B)
	ucky Mineral (S1)		Redox Dark Su		6)			podic (TA6) (MLRA 144A, 145, 149B)
	eyed Matrix (S4)		Depleted Dark					ent Material (F21)
Sandy Re			Redox Depress					allow Dark Surface (F22)
	Matrix (S6)		Marl (F10) (LR)		,			xplain in Remarks)
Dark Surf				, ,				,
³ Indicators of	hydrophytic vogotatie	on and w	otland bydrology mu	ist ha ni	ocont III	aloce diet	urbod or problematic	
	ayer (if observed):	JII allu v	venand hydrology mu	ist be bi	esent, ui	iless dist	urbed or problematic.	
Type:								
Depth (in	ches):						Hydric Soil Preser	nt? Yes X No
Remarks:								
	n is revised from Nor 2015 Errata. (http://w							CS Field Indicators of Hydric Soils,
V 0101011 7.0, 2	10 TO Endia. (http://ww	WW.11100.	dodd.gov/intolliou i	DE_BO	JOINILITI	0/11/00 1-1	2p2_001200.d00x)	

Project/Site: Heritage Wind	City/County: Orleans County Sampling Date: 6/10/2					
Applicant/Owner: Heritage Wind, LLC (Apex Clean Energy)	State: NY Sampling Point: JMO@1U					
Investigator(s): JM, AS	Section, Township, Range: Town of Barre					
	relief (concave, convex, none): None Slope %: 0					
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.179472	Long: -78.196766 Datum: WGS84					
Soil Map Unit Name: Lyons soils, 0 to 3 percent slopes	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 Hydrologysignificantly distur						
Are Vegetation, Soil, or Hydrologynaturally problems						
SUMMARY OF FINDINGS – Attach site map showing sam	ipling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area					
Hydric Soil Present? Yes No X	within a Wetland? Yes No X					
Wetland Hydrology Present? Yes No X	If yes, optional Wetland Site ID:					
Remarks: (Explain alternative procedures here or in a separate report.)						
	Referenced in Report as: 2B					
HYDROLOGY						
	Consendant India share (minimum of true un original)					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water Steined Leaves (A2)	Surface Soil Cracks (B6)					
Surface Water (A1) Water-Stained Leaves (
High Water Table (A2) — Aquatic Fauna (B13) — Marl Deposits (B15)	Moss Trim Lines (B16)					
Saturation (A3) — Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Odor	C1) Dry-Season Water Table (C2) Crayfish Burrows (C8)					
Sediment Deposits (B2) Sediment Deposits (B2) Oxidized Rhizospheres	· · · · · · · · · · · · · · · · · · ·					
Drift Deposits (B3) Presence of Reduced In						
Algal Mat or Crust (B4) Recent Iron Reduction i						
1 						
<u> </u>						
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remai						
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)					
Field Observations:						
Surface Water Present? Yes No X Depth (inches)						
Water Table Present? Yes No X Depth (inches)						
Saturation Present? Yes No X Depth (inches)	Wetland Hydrology Present? Yes No X					
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:					
Remarks:						
Tremains.						

VEGETATION – Use scientific names of plants.

	Absolute	Dominant	Indicator					
ree Stratum (Plot size: 30-foot radius)	% Cover	Species?	Status	Dominance Test worksheet:				
·				Number of Dominant Species				
				That Are OBL, FACW, or FAC: 0 (A)				
				Total Number of Dominant				
				Species Across All Strata: 1 (B)				
<u> </u>								
				Percent of Dominant Species				
				That Are OBL, FACW, or FAC: 0.0% (A/E				
				Prevalence Index worksheet:				
		=Total Cover		Total % Cover of: Multiply by:				
apling/Shrub Stratum (Plot size: 15-foot radius)				OBL species10 x 1 =10				
				FACW species 0 x 2 = 0				
				FAC species0 x 3 =0				
				FACU species 50 x 4 = 200				
				UPL species 0 x 5 = 0				
				Column Totals: 60 (A) 210 (E				
				Prevalence Index = $B/A = 3.50$				
				Hydrophytic Vegetation Indicators:				
		=Total Cover		1 - Rapid Test for Hydrophytic Vegetation				
orb Stratum (Diet aire). E feet radius.		Total Gover	2 - Dominance Test is >50%					
erb Stratum (Plot size: 5-foot radius)	40		E4011					
Zea mays	40	Yes	FACU	3 - Prevalence Index is ≤3.0 ¹				
Plantago major	10	No	FACU	4 - Morphological Adaptations (Provide supp				
Ranunculus sceleratus	10	No	OBL	data in Remarks or on a separate sheet)				
·				Problematic Hydrophytic Vegetation ¹ (Explain)				
				¹ Indicators of hydric soil and wetland hydrology must				
				be present, unless disturbed or problematic.				
				Definitions of Vegetation Strata:				
-				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height				
				diameter at breast height (DBH), regardless of height				
0.				Sapling/shrub – Woody plants less than 3 in. DBH				
1				and greater than or equal to 3.28 ft (1 m) tall.				
2.				Herb – All herbaceous (non-woody) plants, regardles				
	60	=Total Cover		of size, and woody plants less than 3.28 ft tall.				
/oody Vine Stratum (Plot size: 30-foot radius)				Woody vines – All woody vines greater than 3.28 ft i				
				height.				
				Hydrophytic				
				Vegetation Present? Yes No X				
		=Total Cover		Present? Yes No X				
•								

SOIL Sampling Point JMO@1U

	• •	o the de	•			ator or co	onfirm the absence o	f indicators.)
Depth	Matrix	0/		K Featur		1 - 2	T 4	Damanta
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type ¹	Loc ²	Texture	Remarks
0-10	10yr 3/2	98	5yr 4/6	2	<u>C</u>	<u>M</u>	Loamy/Clayey	Prominent redox concentrations
10-14	7.5yr 5/3	<u>70</u>	7.5yr 6/8	30		M	Loamy/Clayey	Prominent redox concentrations
		<u> </u>			<u> </u>			
					<u> </u>			
¹Type: C=C	oncentration, D=Depl	etion, RN	 /=Reduced Matrix, M	IS=Mas	ked Sand	d Grains.	 ² Location: P	L=Pore Lining, M=Matrix.
Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy F Stripped Dark Su			Polyvalue Belo MLRA 149B Thin Dark Surfa High Chroma S Loamy Mucky I Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark Redox Depress Marl (F10) (LRI) ace (S9) ands (S Mineral Matrix (x (F3) urface (F Surface sions (Fa R K, L)	(LRR R 611) (LRR (F1) (LRI F2) 66) (F7)	, MLRA 1 R K, L) R K, L)	2 cm Mu Coast Pi 5 cm Mu Polyvalu Thin Dar Iron-Mar Piedmor Mesic Si Red Par Very Sha Other (E	or Problematic Hydric Soils ³ : cick (A10) (LRR K, L, MLRA 149B) rairie Redox (A16) (LRR K, L, R) cicky Peat or Peat (S3) (LRR K, L, R) de Below Surface (S8) (LRR K, L) rk Surface (S9) (LRR K, L) rganese Masses (F12) (LRR K, L, R) nt Floodplain Soils (F19) (MLRA 149B) podic (TA6) (MLRA 144A, 145, 149B) tent Material (F21) allow Dark Surface (F22) ixplain in Remarks)
Type: Depth (i	nches):						Hydric Soil Preser	nt? Yes No_X_
	m is revised from No 2015 Errata. (http://w		-					CS Field Indicators of Hydric Soils,

Project/Site:	Heritage Wind	City/Coun	nty: O	rleans County		Sampling Date	e: 06/10/2019		
Applicant/Owner:	Heritage Wind, LLC	C (Apex Clean Energy)		State:	New York	Sampling Poir	nt: JMO@1W		
Investigator(s):	JM, AS		Township, Range:			wn of Barre			
Landform (hillslope, terrace, etc):	Floodplain	Local relief (conca	ive, convex, none):		none	SI	ope (%):Gentle (0-5%		
Subregion (LRR or MLRA): LRR I	- Central Great Lakes Fore:	ests Lat: 43.	179120	Long:	-78.196766	 5 Da	atum: WGS 1984		
Soil Map Unit Name: Lyons soils,	0 to 3 percent slopes				WI classificat	ion: PFO			
Are climatic / hydrologic conditions	on the site typical for this tim	ne of year? Yesx	(No	(If no, expla	in in Remark	s.)			
Are Vegetation, Soil	, or Hydrology	significantly disturbed	? Are "N	ormal Circumst	ances" prese	nt? Yes	X No		
Are Vegetation, Soil	, or Hydrology	_naturally problematic?	? (If nee	ded, explain an	y answers in	Remarks.)			
SUMMARY OF FINDINGS	- Attach site map sho	wing sampling po	oint locations,	transects, i	mportant	features, et	C.		
Hydrophytic Vegetation Present?	? Yes X	No	Is the Sampled A	Area					
Hydric Soil Present?	Yes X	No	within a Wetland	?	Yes X	No			
Wetland Hydrology Present?		No	If yes, optional We	etland Site ID: _	<u> </u>	Yes JMO			
Remarks: (Explain alternative pr	ocedures here or in a separa	. ,	erenced in Re	eport as: 2B	1				
HYDROLOGY									
Wetland Hydrology Indicators:	:								
Primary Indicators (minimum of	one required; check all that a	apply)		Sec	ondary Indica	ators (minimum	of two required)		
Surface Water (A1)	<u>X</u> W	Vater-Stained Leaves (E	39)	Surface Soil Cracks (B6)					
X High Water Table (A2)	A	Aquatic Fauna (B13)		Drainage Patterns (B10)					
X Saturation (A3)	M	/larl Deposits (B15)		Moss Trim Lines (B16)					
Water Marks (B1)	H	lydrogen Sulfide Odor ((C1)	Dry-Season Water Table (C2)					
Sediment Deposits (B2)	0	Oxidized Rhizospheres	on Living Roots (C3	(C3) Crayfish Burrows (C8)					
Drift Deposits (B3)	P	Presence of Reduced Iron	on (C4)		Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	R	Recent Iron Reduction in	n Tilled Soils (C6)	6) Stunted or Stressed Plants (D1)					
Iron Deposits (B5)		hin Muck Surface (C7)			Geomorphic	Position (D2)			
Inundation Visible on Aerial		Other (Explain in Remar	ks)		Shallow Aqu	ıitard (D3)			
Sparsely Vegetated Concav	/e Surface (B8)				Microtopogr	aphic Relief (D	4)		
					FAC-Neutra	I Test (D5)			
Field Observations:									
Surface Water Present?	Yes No X	Depth (inches):							
Water Table Present?	Yes X No	Depth (inches):	6						
Saturation Present?	Yes X No	Depth (inches):	2 Wet	land Hydrolog	y Present?	Yes X	No		
(includes capillary fringe)									
Describe Recorded Data (stream	າ gauge, monitoring well, aer	rial photos, previous ins	spections), if availab	ole:					

GETATION - Use scientific names of plants.				Т	Samp	ling Point	: <u>JM</u> C	D@1W		
				Dominance Test w	orksheet:					
				Number of Dominar	nt Species					
	Absolute	Dominant	Indicator	That Are OBL, FAC	W, or FAC:		4	(A)		
ree Stratum (Plot size: 30)	%Cover	Species?	Status							
. Ulmus americana / American elm	75	Yes	FACW	Total Number of Do	minant					
Populus tremuloides / Quaking aspen	30	Yes	FACU	Species Across All	Strata:		6	(B)		
3. Fraxinus pennsylvanica / Green ash	25	No	FACW	'		-		_ ` ′		
				Percent of Dominar	nt Species					
				That Are OBL, FAC	•		66.7	(A/E		
· i.						-	00.7	_ (, ,,		
·	-		-	Prevalence Index	worksheet:					
·	130	= Total Cove		Total % Cover	of:	Mul	tiply by:			
Capling/Chruh Stratum (Dlat aiza) 15		_ = 10tal Cove	·I	OBL species	0	x 1 =	0			
Sapling/Shrub Stratum (Plot size: 15)	10	Yes	FACW	FACW species	125	x 2 =	250			
. Ulmus americana / American elm	10	Yes	FACW	FAC species	40	x 3 =	120			
				FACU species	30	x 4 =	120			
•				UPL species	0	x5=	0			
				_ ·						
i				Column Totals:	195	(A)	490	(E		
i				Prevalence Ir	idex = B/A =		.5128			
7				Hydrophytic Vege	tation Indica	tore:				
	10	_ = Total Cove	r	1			tion			
lerb Stratum (Plot size: 1 Sq. M.)			FAC	1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50%						
. Toxicodendron radicans / Eastern poison ivy	40	Yes								
Polygonum virginianum / Jumpseed	20	Yes			3 - Prevalence Index ≤3.0¹					
3. Fraxinus pennsylvanica / Green ash	15	Yes	FACW	4 - Morphologi				ting		
				Problematic Hy	ydrophytic Ve	getation¹	(Explain)			
i										
·				¹ Indicators of hydric	¹Indicators of hydric soil and wetland hydrology must					
		-		be present, unless disturbed or problematic.						
				Definitions of Veg	etation Strat	а				
).										
0				Tree - Woody plant				eter at		
1.				breast height (DBH), regardless	of height.				
2				Sapling/shrub - W			3 in. DBH	and		
	75	_ = Total Cove	r	greater than or equ	al to 3.28 ft (1	1 m) tall.				
Voody Vine Stratum (Plot size:)				Herb - All herbaced	ous (non-woo	dy) plants	, regardle	ss of		
				size, and woody pla	ants less than	3.28 ft ta	II.			
·				Woody vines - All v	woody vines	greater th	an 3.28 ft	in		
				height.	•	-				
l										
	0	= Total Cove	r	Hydrophytic						
		_		Vegetation						
				Present?	Yes X					

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: JMO@1W

Profile Desci	ription: (Describe to th	ne depth ne	eded to document th	e indicator	or confirm	the abse	nce of indicator	s.)
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-9	10YR 3/1	100					Loamy/Clayey	
9-20	5YR 6/2	80	7.5YR 5/6	20	С	M	Loamy/Clayey	Silt/loam for deeper profile
¹Type: C=Cor	ncentration, D=Depletion	n, RM=Redu	iced Matrix, MS=Mask	red Sand Gra	ains.		²Loca	tion: PL=Pore Lining, M=Matrix.
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) pipedon (A2)	RA 149B)	Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed M X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR lineral (F1) (Matrix (F2) (F3) face (F6) Gurface (F7) ons (F8)	R R, MLRA	A 149B)	9B)	for Problematic Hydric Soils³: Muck (A10) (LRR K, L, MLRA 149B) t Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) alue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R) nont Floodplain Soils (F19) (MLRA 149B) c Spodic (TA6) (MLRA 144A, 145, 149B) Parent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Restrictive L	ayer (if observed):							
Type:								
Depth (inc	ches):		<u> </u>				Hydric Soil P	resent? Yes X No
Remarks:								
İ								

Project/Site:	Heritage Wind	City/Cou	nty: Orleans	County	Sampling Date:	06/12/2019
Applicant/Owner:	Heritage Wind	, LLC (Apex Clean Energy)		State: New York	Sampling Point:	SP06@1U
Investigator(s):	Sp Bk	Section,	Township, Range:	To	own of Barre	
Landform (hillslope, terrace, etc):	Flat	Local relief (conc	ave, convex, none):	none	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes	Forests Lat: 43.1573	Long	-78.1573	Datun	n: WGS 1984
Soil Map Unit Name:		Churchville silt loam		NWI classificat	ion:	
Are climatic / hydrologic condition	s on the site typical for th	is time of year? Yes	X No (If	no, explain in Remar	ks.)	
Are Vegetation X, Soil	X , or Hydrology	X significantly disturbed	d? Are "Normal	Circumstances" pres	ent? Yes	X No
Are Vegetation, Soil	, or Hydrology	naturally problemation	? (If needed, e	explain any answers in	n Remarks.)	
SUMMARY OF FINDINGS	- Attach site map	showing sampling p	oint locations, tran	sects, important	features, etc.	
Hydrophytic Vegetation Presen	t? Yes	No X	Is the Sampled Area			
Hydric Soil Present?	Yes	No X	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland			
Remarks: (Explain alternative p SP061U Ref	procedures here or in a sec erenced in Report	. ,				
HYDROLOGY	1					
Wetland Hydrology Indicator	 s:					
Primary Indicators (minimum of		hat apply)		Secondary India	cators (minimum of t	wo required)
Surface Water (A1)	one required, enteen air i	Water-Stained Leaves ((B9)		oil Cracks (B6)	
High Water Table (A2)	_	Aquatic Fauna (B13)	()		Patterns (B10)	
Saturation (A3)	_	Marl Deposits (B15)			Lines (B16)	
Water Marks (B1)	_	Hydrogen Sulfide Odor	(C1)		n Water Table (C2)	
Sediment Deposits (B2)	_	Oxidized Rhizospheres	` '		urrows (C8)	
Drift Deposits (B3)	_	Presence of Reduced In	ron (C4)	Saturation	Visible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)	_	Recent Iron Reduction	in Tilled Soils (C6)	Stunted or	Stressed Plants (D1	1)
Iron Deposits (B5)	_	Thin Muck Surface (C7)	Geomorph	ic Position (D2)	
Inundation Visible on Aeria	al Imagery (B7)	Other (Explain in Rema	irks)	Shallow Ad	quitard (D3)	
Sparsely Vegetated Conce	ave Surface (B8)	_ ` ` `		Microtopog	raphic Relief (D4)	
				FAC-Neutr	al Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	Depth (inches):				
Saturation Present?	Yes No X	_ · · ·	Wetland I	Hydrology Present?	Yes	No X
(includes capillary fringe)						
, , , , ,						
Describe Recorded Data (strea	ım gauge, monitoring wel	l, aerial photos, previous in	spections), if available:			
Remarks:						

VEGETATION - Use scientific names of plants.				Samı	pling Poin	nt: SP0	6@1U
Tree Stratum (Plot size:30) 1 2 3 4		_		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species	_	0	_ (A)
5. 6.				That Are OBL, FACW, or FAC:		0.0	_ (A/B)
6	0	= Total Cov	er	Prevalence Index worksheet: Total % Cover of: OBL species 0 FACW species 0 FAC species 0 FACU species 0 UPL species 0 Column Totals: 0 Prevalence Index = B/A =	x 1 = x 2 = _ x 3 = _ x 4 = _ x 5 = _ (A)	0 0 0 0 0 0 0	(B)
7	70	_ = Total Cov		Hydrophytic Vegetation Indicators of hydrophytic Vegetation Indicators of Hydrophytic Vegetation Indicators of Hydrophytic Vegetation Indicators of Hydric soil and we be present, unless disturbed or	ytic Veget % ons (Provi	ide suppor ¹ (Explain) lrology mus	
8	70	= Total Cov	er	Tree - Woody plants 3 in. (7.6 c breast height (DBH), regardless Sapling/shrub - Woody plants greater than or equal to 3.28 ft (Herb - All herbaceous (non-woosize, and woody plants less that Woody vines - All woody vines	m) or more of height less than (1 m) tall. ody) plant n 3.28 ft ta	t. 3 in. DBH ss, regardle all.	and ess of
Remarks: (Explain alternative procedures here or in a separa	0 te report.)	= Total Cov	er	Hydrophytic Vegetation Present? Yes	No) <u>X</u>	

SOIL Sampling Point: SP06@1U

Depth	Matrix			Features			ence of indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	- Texture	Remarks	
0-2	7.5 yr 5/4	90	7.5 yr 6/4	10	C Type	M	Loamy/Clayey	Kemark	<u> </u>
	7.5)1 0/1		7.0). 0.1						
Type: C=Cor	ncentration, D=Depletio	n, RM=Redi	uced Matrix, MS=Mask	ked Sand Gr	rains.		²Location: l	PL=Pore Lining, M=	=Matrix.
lydric Soil I	ndicatore		<u> </u>				Indicators for E	Problematic Hydric	n Soile ³ :
Black Hi Hydroge Stratified Depleted Thick Da Sandy N Sandy G Sandy R Stripped Dark Sui	(A1) Dipedon (A2) Stic (A3) En Sulfide (A4) Did Layers (A5) Did Below Dark Surface (A12) Mucky Mineral (S1) Dieyed Matrix (S4) Redox (S5) I Matrix (S6) I Matrix (S6) I Hydrophytic vegetation	.RA 149B)	Polyvalue Below Thin Dark Surfa Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LF dineral (F1) Matrix (F2) (F3) face (F6) Surface (F7) ons (F8)	RR R, MLRA	A 149B)	Coast Prair 5 cm Muck Dark Surfa Polyvalue I Thin Dark S Iron-Manga Piedmont I Mesic Spot Red Paren Very Shallo	(A10) (LRR K, L, lrie Redox (A16) (Ly Peat or Peat (S3) ce (S7) (LRR K, L) Below Surface (S8) Surface (S9) (LRR anese Masses (F12 Floodplain Soils (F1 dic (TA6) (MLRA at Material (F21) ow Dark Surface (Tlain in Remarks)	RR K, L, R) (LRR K, L, R) (LRR K, L) (K, L) (LRR K, L, F) (J) (LRR K, L, F) (MLRA 1491
Type:	ayer (if observed):								
Depth (in	ches):	2					Hydric Soil Preser	t? Yes	NoX

Project/Site:	Heritage Wind	City/Cou	inty: Orle	ans County	Sampling Date:	06/12/2019
Applicant/Owner:		LLC (Apex Clean Energy		State: New York	· · · · · —	SP06@1W
Investigator(s):	Sp Bk	Section,	Township, Range:	To	own of Barre	
Landform (hillslope, terrace, etc):	Flat	Local relief (cond	cave, convex, none):	concave	Slope (%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	- Central Great Lakes I	orests Lat: 43.1573	Lo	ng: -78.1516	Datum:	WGS 1984
Soil Map Unit Name: Churchville si	ilt loam			NWI classificati	on: PFO	
Are climatic / hydrologic conditions	on the site typical for thi	s time of year? Yes	X No	(If no, explain in Remark	ks.)	
Are Vegetation X, Soil	X , or Hydrology	X significantly disturbe	d? Are "Norr	nal Circumstances" pres	ent? Yes X	No
Are Vegetation, Soil	, or Hydrology	naturally problemation	c? (If needed	d, explain any answers ir	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map s	showing sampling p	oint locations, tra	ansects, important	features, etc.	
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Are	a		
Hydric Soil Present?	Yes X	No No	within a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetla	and Site ID:	SP061W	
Remarks: (Explain alternative pr	rocedures here or in a se	,	I			
HYDROLOGY						
Wetland Hydrology Indicators				0 1 1 1		
Primary Indicators (minimum of	one required; check all tr		(DO)		ators (minimum of tw	o requirea)
Surface Water (A1)		Water-Stained Leaves	(B9)		il Cracks (B6)	
X High Water Table (A2)		Aquatic Fauna (B13)			atterns (B10)	
Saturation (A3)	_	_ Marl Deposits (B15)	(04)		Lines (B16)	
X Water Marks (B1)	_	_ Hydrogen Sulfide Odor		 -	n Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres	. ,		ırrows (C8)	(CO)
Drift Deposits (B3)	_	Presence of Reduced I	` ,		Visible on Aerial Imag	
Algal Mat or Crust (B4)	_	Recent Iron Reduction	` '		Stressed Plants (D1)	
Iron Deposits (B5)		Thin Muck Surface (C7 Other (Explain in Rema	•		c Position (D2)	
Inundation Visible on Aerial	-	_ Other (Explain in Rema	arks)	Shallow Aq		
Sparsely Vegetated Concav	re Surface (B8)				raphic Relief (D4) al Test (D5)	
				FAC-Neutr	ai iesi (D5)	
Field Observations:						
Surface Water Present?	Yes NoX	Depth (inches):				
Water Table Present?	Yes X No	Depth (inches):	12			
Saturation Present?	Yes X No	Depth (inches):	1 Wetlar	d Hydrology Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Data (stream	n gauge, monitoring well	, aerial photos, previous ir	nspections), if available	:		
Remarks:						

				Dominance Test w	orksheet.			
	A h = = 1 t =	Daminant	lu di anton	Number of Dominal	-		0	(4)
T 0: 1 (DI : 00)	Absolute	Dominant	Indicator	That Are OBL, FAC	W, or FAC:		2	_ (A)
Tree Stratum (Plot size: 30)	%Cover	Species?	Status					
1. Acer rubrum / Red maple	50	Yes	<u>FAC</u>	Total Number of Do				
2. Prunus serotina / Black cherry	40	Yes	FACU	Species Across All	Strata:		4	_ (B)
3								
4				Percent of Dominar	nt Species			
5				That Are OBL, FAC	W, or FAC:		50.0	_ (A/B)
6								
7.				Prevalence Index	worksheet:			
	90	= Total Cov	/er	Total % Cover	of:	M	ultiply by:	
Sapling/Shrub Stratum (Plot size: 15)				OBL species	0	x 1 =	0	
1. Acer rubrum / Red maple	30	Yes	FAC	FACW species	0	x 2 =	0	
·	30			FAC species	80	x 3 =	240	
Carya ovata / Shag-bark hickory		Yes	FACU	FACU species	70	x 4 =	280	
3.				UPL species	0	x 5 =	0	
4				Column Totals:		_	520	(D)
5					150	(A) _		(B)
6				Prevalence Ir	idex = B/A =		3.4667	
7				Hydrophytic Vege	tation Indica	tore:		
	60	= Total Cov	er er					
Herb Stratum (Plot size: 1 Sq. M.)				1 - Rapid Test		-	lation	
1.				2 - Dominance		6		
2.				3 - Prevalence				
				4 - Morphologi	-	•		ting
				Problematic Hy	ydrophytic Ve	egetation	¹ (Explain)	
			 					
5		_		¹ Indicators of hydric	soil and we	tland hyd	Irology mus	st
6				be present, unless				
7				' '		•		
8				Definitions of Veg	etation Stra	ta		
9								
10				Tree - Woody plant	s 3 in. (7.6 c	m) or mo	re in diame	ter at
11				breast height (DBH), regardless	of heigh	t.	
12.				Sapling/shrub - W				and
		= Total Cov	ver	greater than or equ	al to 3.28 ft (1 m) tall.	O III. DDIT	ana
Woody Vine Stratum (Plot size: 30)		_						6
1.				Herb - All herbaced size, and woody pla				SS 01
2.		-						
-				Woody vines - All v	woody vines	greater t	han 3.28 ft	ın
3.		-		height.				
4								
	0	_ = Total Cov	er er	Hydrophytic				
				Vegetation			V	
				Present?	Yes	No	- X	
				i i				

SOIL Sampling Point: SP06@1W

Depth	Matrix		Redox	 Features 			_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-6	10 yr 3/2	90	7.5 yr 5/6	10	С	PL,M	Loamy/Clayey	
6-18	10 yr 6/1	60	7.5 yr 5/6	40	<u>C</u>	M	Loamy/Clayey	
Type: C=Con	ocentration, D=Depletion	n, RM=Redi	uced Matrix, MS=Masl	ced Sand Gra	ains.		²Location: F	PL=Pore Lining, M=Matrix.
Black His Hydrogei Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) ipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) I Below Dark Surface (A irk Surface (A12) lucky Mineral (S1) leyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, ML	.RA 149B)	Polyvalue Belov Thin Dark Surfa Loamy Mucky M Loamy Gleyed N X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR dineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ions (F8)	R R, MLR.	A 149B)	9B) 2 cm Muck Coast Prair 5 cm Muck Dark Surface Polyvalue E Thin Dark S Iron-Manga Piedmont F Mesic Spoo Red Parent Very Shallo Other (Expl	Problematic Hydric Soils ³ : (A10) (LRR K, L, MLRA 149B) ie Redox (A16) (LRR K, L, R) y Peat or Peat (S3) (LRR K, L, R) ce (S7) (LRR K, L) Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) inese Masses (F12) (LRR K, L, R) cloodplain Soils (F19) (MLRA 149B) it (TA6) (MLRA 144A, 145, 149B) it Material (F21) by Dark Surface (TF12) lain in Remarks)
	hydrophytic vegetation ayer (if observed):	and wetland	a nyarology must be p	resent, unies	s disturbed	or proble	matic.	
Type:	· · · · · · · · · · · · · · · · · · ·							
Depth (inc	ches):	18					Hydric Soil Presen	t? Yes X No
Remarks:							1	

Project/Site:	Heritage Wind	City/Coun	ity: Orleans C	ounty	Sampling Date:	06/12/2019
Applicant/Owner:	Heritage Wind, L	LC (Apex Clean Energy)		tate: New York	Sampling Point:	SP06@2U
Investigator(s):	Sp Bk	Section, T	ownship, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc):	Hillside	Local relief (conca	ve, convex, none):	convex	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Fo	rests Lat: 43.1573	Long: -7	78.1516	Datum	n: WGS 1984
Soil Map Unit Name: Churchville s	silt loam	•		NWI classification	n: PEM	
Are climatic / hydrologic conditions	on the site typical for this	time of year? Yes x	(No (If no,	explain in Remarks	s.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbed	? Are "Norma	al Circumstances" p	resent? Yes>	(No
Are Vegetation, Soil Are Vegetation, Soil	, or Hydrology	naturally problematic?	? (If needed, exp	lain any answers in	Remarks.)	
SUMMARY OF FINDINGS				cts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Area			
Hydric Soil Present?	Yes	No X	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Si	· · · · · · · · · · · · · · · · · · ·		
Remarks: (Explain alternative pr Sp062u Refe	ocedures here or in a separenced in Report a	. ,				
HYDROLOGY	1					
Wetland Hydrology Indicators	•					
Primary Indicators (minimum of		t apply)		Secondary Indic	ators (minimum of t	wo required)
Surface Water (A1)	ono roquirou, onook un tra	Water-Stained Leaves (E	39)		il Cracks (B6)	vo roquirou)
High Water Table (A2)	_	Aquatic Fauna (B13)	50)		atterns (B10)	
Saturation (A3)		Marl Deposits (B15)		Moss Trim I	` '	
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres	•	Crayfish Bu	, ,	
Drift Deposits (B3)	_	Presence of Reduced Iro	• ,		√isible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)	_	Recent Iron Reduction in	` '		Stressed Plants (D1	. ,
Iron Deposits (B5)	_	Thin Muck Surface (C7)	` '		c Position (D2)	,
Inundation Visible on Aerial	Imagery (B7)	Other (Explain in Remar		Shallow Aq	, ,	
Sparsely Vegetated Concav	ve Surface (B8)		,	Microtopogi	raphic Relief (D4)	
	, ,			FAC-Neutra	. , ,	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	- · · · /				
Saturation Present?	Yes No X	Depth (inches):	Wetland Hy	drology Present?	Yes	No X
(includes capillary fringe)						
, , , ,						
Describe Recorded Data (stream	n gauge, monitoring well, a	erial photos, previous ins	pections), if available:			
Remarks:						
romano.						

				Dominance Test worksheet:			
				Number of Dominant Species			
	Absoluto	Dominant	Indicator	•		2	(4)
Trace Structures (Plat size) 20	Absolute	Dominant	Indicator	That Are OBL, FACW, or FAC	· —	3	(A)
ree Stratum (Plot size: 30)	%Cover	Species?	Status				
Quercus macrocarpa / Bur oak	60	Yes	<u>FACU</u>	Total Number of Dominant			
Acer rubrum / Red maple	30	Yes	<u>FAC</u>	Species Across All Strata:		6	(B)
-							
				Percent of Dominant Species			
				That Are OBL, FACW, or FAC	·	50.0	(A/B
·				Duescalence Index workshoot			
				Prevalence Index worksheet		A It's a law law s	
	90	_ = Total Cove	er	Total % Cover of:		Multiply by:	
apling/Shrub Stratum (Plot size: 15)				OBL species 0	_ x 1 =	0	
Populus deltoides / Eastern cottonwood	20	Yes	FAC	FACW species 0	_ x 2 =	0	
Prunus serotina / Black cherry	10	Yes	FACU	FAC species 80	_ x 3 =	240	
				FACU species 110	_ x 4 =	440	
				UPL species 0	_ x 5 =	0	
				Column Totals: 190	(A)	680	(B
				Prevalence Index = B/A	=	3.5789	
	<u> </u>						
	30	= Total Cove		Hydrophytic Vegetation Indi	cators:		
erb Stratum (Plot size: 1 Sq. M.)				1 - Rapid Test for Hydrop	nytic Veg	etation	
Parthenocissus quinquefolia / Virginia creeper	40	Yes	FACU	2 - Dominance Test is >5	ე%		
Toxicodendron radicans / Eastern poison ivy	30	Yes	FAC	3 - Prevalence Index ≤3.0) ¹		
•				4 - Morphological Adapta	tions (Pro	vide suppo	rting
-				Problematic Hydrophytic	Vegetatio	n¹ (Explain))
	·			¹ Indicators of hydric soil and w	etland hy	drology mu	ıst
		- ·		be present, unless disturbed of	r problen	natic.	
				•			
				Definitions of Vegetation Str	ata		
)				Tree - Woody plants 3 in. (7.6	cm) or m	ore in diam	eter at
· <u> </u>				breast height (DBH), regardles	s of heig	ht.	
				Sapling/shrub - Woody plants	less tha	n 3 in. DBH	and
	70	_ = Total Cove	er	greater than or equal to 3.28 f	: (1 m) tal	I.	
oody Vine Stratum (Plot size:)				Herb - All herbaceous (non-wasize, and woody plants less th			ess of
				Woody vines - All woody vine	e areater	than 3 28 f	it in
	·			height.	s greater	ulali 5.20 i	t III
				lg			
	0	= Total Cove	<u></u>	Hydrophytic			
		5.2. 5576		Vegetation			
				Present? Yes	N	lo X	
				i i resenti i es	יו	w., ,,	

SOIL Sampling Point: SP06@2U

SUIL								Sampling	Politi. SP	200@20
Profile Desci	ription: (Describe to t	he depth ne	eded to document th	e indicator	or confirm	the abse	nce of indicators.)		
Depth	Matrix			Features				,		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Rem	narks	
0-8	10 yr 3/2	100			.,,,,,		Loamy/Clayey			
	10 11 0/2			· ———			<u>Lourny, olayoy</u>			
		·		·						
		·		·						
		·		·						
-	_		1							
-	_		1							
-	_		1							
		·		·						
		·		·						
·		· ——		·			· ·			
·		· ——		·			· ·			
¹Type: C=Cor	ncentration, D=Depletion	n, RM=Redu	uced Matrix, MS=Mask	ed Sand Gr	ains.		²Locatio	on: PL=Pore Lining	j, M=Matrix.	
Hydric Soil I	ndicatore:						Indicators f	or Problematic H	udric Soile3:	
Histosol			Polyvalue Below	Surface (S	8) (I PP P	MI RA 14		luck (A10) (LRR K		9B)
	oipedon (A2)		Thin Dark Surface	•	,		· —	Prairie Redox (A16		•
Black His			Loamy Mucky M					lucky Peat or Peat		-
	n Sulfide (A4)		Loamy Gleyed N	` ,	(=::::, =)			urface (S7) (LRR		_,,
, ,	Layers (A5)		Depleted Matrix	, ,				ue Below Surface		L)
	d Below Dark Surface (A11)	Redox Dark Sur	` '				ark Surface (S9) (. ,	-,
	ark Surface (A12)	,	Depleted Dark S	` ,				anganese Masses		K. L. R)
	lucky Mineral (S1)		Redox Depressi	, ,				ont Floodplain Soils	` , .	
	Gleyed Matrix (S4)			()				Spodic (TA6) (ML	. , .	-
	ledox (S5)							rent Material (F21)		, ,
	Matrix (S6)							nallow Dark Surfac		
	rface (S7) (LRR R, MI	_RA 149B)						Explain in Remarks	,	
	, , ,	,						•	,	
³ Indicators of	hydrophytic vegetation	and wetland	d hydrology must be pr	esent, unles	ss disturbed	or proble	matic.			
Restrictive L	ayer (if observed):									
Type:										
Depth (in	ches):	8					Hydric Soil Pre	esent? Yes _	No	X
Remarks:							•			
	Rock									

Project/Site:	Heritage Wind	City/Coun	ity: Orleans C	County	Sampling Date:	06/13/2019
Applicant/Owner:	Heritage Wind,	LC (Apex Clean Energy)		State: New York	Sampling Point:	SP08@1U
Investigator(s):	Sp Bk	Section, T	ownship, Range:	To	own of Barre	
Landform (hillslope, terrace, etc):	Hillside	Local relief (conca	ve, convex, none):	convex	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes F	orests Lat: 43.161992	Long:	-78.153108	Datum	n: WGS 1984
Soil Map Unit Name:		Lyons silt loam		NWI classificati	on:	
Are climatic / hydrologic condition	s on the site typical for this	s time of year? Yes X	No (If no	o, explain in Remar	ks.)	
Are Vegetation X, Soil	X , or Hydrology	X significantly disturbed	? Are "Normal C	ircumstances" pres	ent? Yes>	K No
Are Vegetation, Soil	, or Hydrology	naturally problematic?	? (If needed, exp	olain any answers ir	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map s	howing sampling po	oint locations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Area			
Hydric Soil Present?	Yes	No X	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland S	· · · · · · · · · · · · · · · · · · ·		
Remarks: (Explain alternative p Sp 08-1u Refe	rocedures here or in a seperenced in Report	. ,				
HYDROLOGY	1					
Wetland Hydrology Indicators	*:					
Primary Indicators (minimum of		at apply)		Secondary Indic	ators (minimum of t	wo required)
Surface Water (A1)	,	Water-Stained Leaves (E	39)		il Cracks (B6)	
High Water Table (A2)		Aquatic Fauna (B13)	-,		atterns (B10)	
Saturation (A3)	_	Marl Deposits (B15)			Lines (B16)	
Water Marks (B1)	_	Hydrogen Sulfide Odor (C1)	Dry-Seasor	n Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bu	irrows (C8)	
Drift Deposits (B3)		Presence of Reduced Iro	on (C4)	Saturation	Visible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)		Recent Iron Reduction in	Tilled Soils (C6)	Stunted or	Stressed Plants (D1	.)
Iron Deposits (B5)		Thin Muck Surface (C7)		Geomorphi	c Position (D2)	
Inundation Visible on Aeria	l Imagery (B7)	Other (Explain in Remar	ks)	Shallow Aq	uitard (D3)	
Sparsely Vegetated Conca	ve Surface (B8)			Microtopog	raphic Relief (D4)	
				FAC-Neutra	al Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	_ ' '				
Saturation Present?	Yes No X	Depth (inches):	Wetland Hy	drology Present?	Yes	No X
(includes capillary fringe)		_ · · · /				
, , , ,						
Describe Recorded Data (stream	m gauge, monitoring well,	aerial photos, previous ins	pections), if available:			
Remarks:						

GETATION - Use scientific names of plants.				Sampli	ing Point:	SPC)8@1U
ree Stratum (Plot size:30) Acer rubrum / Red maple	Absolute %Cover 20	Dominant Species? Yes	Indicator Status FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant		1	_ (A)
				Species Across All Strata:		2	_ (B)
		_		Percent of Dominant Species That Are OBL, FACW, or FAC:		50.0	_ (A/B)
				Prevalence Index worksheet:			
	20	= Total Cov	er	Total % Cover of:	Multi	iply by:	
apling/Shrub Stratum (Plot size: 15)		_		OBL species 0	x 1 =	0	
				FACW species 0	x 2 =	0	
				FAC species20	x 3 =	60	
				FACU species 0	x 4 =	0	
`- 			<u> </u>	UPL species 0	x 5 =	0	
`- 					(A)	60	(E
				Prevalence Index = B/A =		3.0	<u> </u>
erb Stratum (Plot size: 1 Sq. M.) Glycine max / Soybean	20	= Total Cov		Hydrophytic Vegetation Indicat 1 - Rapid Test for Hydrophyti 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.0¹	ic Vegetat		
		_		4 - Morphological Adaptation Problematic Hydrophytic Vec	•		-
			- ————————————————————————————————————	¹Indicators of hydric soil and wetla be present, unless disturbed or p	-		st
			- 	Definitions of Vegetation Strata	1		
). 				Tree - Woody plants 3 in. (7.6 cm breast height (DBH), regardless of		in diame	eter at
2				Sapling/shrub - Woody plants le		in. DBH	and
/oody Vine Stratum (Plot size:30)		_ = Total Cov		greater than or equal to 3.28 ft (1 Herb - All herbaceous (non-wood size, and woody plants less than	ly) plants,	regardle	ss of
				Woody vines - All woody vines g			in
				neight.			
	0	= Total Cov	er	Hydrophytic Vegetation Present? Yes	No		

SOIL Sampling Point: SP08@1U

Profile Desci	ription: (Describe to the	ne depth ne	eded to document th	e indicator	or confirm	the abse	nce of indicators.)			
Depth	Matrix		Redox	Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Rema	rks	
0-18	10 yr 3/4	100					Loamy/Clayey			
Гуре: C=Cor	ncentration, D=Depletio	n, RM=Redu	ced Matrix, MS=Mask	ked Sand Gra	ains.		² Location	: PL=Pore Lining, I	M=Matrix.	
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped	(A1) pipedon (A2)	,	Polyvalue Below Thin Dark Surface Loamy Mucky M Loamy Gleyed N Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR) lineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7)	R R, MLRA		2 cm Muc Coast Pra 5 cm Muc Dark Surl Polyvalue Thin Dark Iron-Mane Piedmont Mesic Sp Red Pare Very Sha	Problematic Hydek (A10) (LRR K, Lairie Redox (A16) eky Peat or Peat (Stace (S7) (LRR K, Lairie Redox (LRR K, LRR K, L	., MLRA 149 (LRR K, L, F (3) (LRR K, I L) 8) (LRR K, I RR K, L) 12) (LRR K F19) (MLRA A 144A, 145,	R) L, R) L) (, L, R) . 149B)
Restrictive L	hydrophytic vegetation ayer (if observed):	and wetland	I hydrology must be pr	resent, unles	s disturbed	or proble	matic.			
Type: Depth (in	ches):	18					Hydric Soil Prese	ent? Yes	No _	Х
Remarks:	Clay impaction									

Project/Site:	Heritage Wind	City/Count	ty: Orleans 0	County	Sampling Date:	06/13/2019
Applicant/Owner:	Heritage Wind, LL	.C (Apex Clean Energy)		State: New York	Sampling Point:	SP08@1W
Investigator(s):	Sp Bk	Section, To	ownship, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc):	Hillside	Local relief (concav	ve, convex, none):	concave	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes For	ests Lat: 43.161992	Long:	-78.153108	Datum	n: WGS 1984
Soil Map Unit Name:	I	Lyons silt loam		NWI classificatio	n: PFO	
Are climatic / hydrologic conditions	s on the site typical for this t	ime of year? Yes X	No (If n	o, explain in Remark	(s.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbed?	? Are "Normal C	ircumstances" prese	ent? Yes>	K No
Are Vegetation, Soil	, or Hydrology	naturally problematic?	(If needed, ex	olain any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map she	owing sampling po	int locations, transe	ects, important	features, etc.	
Hydrophytic Vegetation Present	? Yes X	No	Is the Sampled Area			
Hydric Soil Present?	Yes X	No	within a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland S	ite ID:	SP08-1w	-
Remarks: (Explain alternative p	rocedures here or in a sepa erenced in Report a	. ,				
HYDROLOGY						
Wetland Hydrology Indicators	:					
Primary Indicators (minimum of	one required; check all that	apply)		Secondary Indica	ators (minimum of t	wo required)
Surface Water (A1)		Water-Stained Leaves (B	39)	Surface Soi	l Cracks (B6)	
High Water Table (A2)		Aquatic Fauna (B13)		Drainage Pa	atterns (B10)	
Saturation (A3)		Marl Deposits (B15)		Moss Trim L	_ines (B16)	
Water Marks (B1)		Hydrogen Sulfide Odor (0	C1)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres of	n Living Roots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)	_	Presence of Reduced Iro	n (C4)	Saturation \	/isible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)		Recent Iron Reduction in	Tilled Soils (C6)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)		Thin Muck Surface (C7)		Geomorphic	Position (D2)	
Inundation Visible on Aeria	I Imagery (B7)	Other (Explain in Remark	(s)	Shallow Aqu	uitard (D3)	
Sparsely Vegetated Conca	ve Surface (B8)			Microtopogr	raphic Relief (D4)	
				FAC-Neutra	l Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	Depth (inches):				
Saturation Present?	Yes No X	Depth (inches):	Wetland Hy	drology Present?	Yes	No X
(includes capillary fringe)		. , ,				
. , , ,						
Describe Recorded Data (stream	m gauge, monitoring well, a	erial photos, previous insp	pections), if available:			
Remarks:						

VEGETATION - Use scientific names of plants. Sampling Point: SP08@1W **Dominance Test worksheet: Number of Dominant Species** Absolute Dominant Indicator That Are OBL, FACW, or FAC: 4 (A) %Cover Species? Status Tree Stratum (Plot size: 1. Fraxinus pennsylvanica / Green ash FACW **Total Number of Dominant** 2. Acer rubrum / Red maple 30 FAC Species Across All Strata: 5 (B) 4. Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 100 = Total Cover x 1 = OBL species Sapling/Shrub Stratum (Plot size: 130 FACW species x 2 = 1. Cornus amomum / Silky dogwood 50 **FACW** Yes 90 x 3 = FAC species 270 10 No **FACW** 2. Fraxinus pennsylvanica / Green ash 55 FACU species x 4 = 220 10 No FAC 3. Ulmus rubra / Slippery elm UPL species 0 x 5 = 4. Lonicera japonica / Japanese honeysuckle 5 FACU Column Totals: 275 (A) 2.7273 Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** 75 = Total Cover 1 - Rapid Test for Hydrophytic Vegetation Herb Stratum (Plot size: __ 1 Sq. M.) X 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations (Provide supporting ___ Problematic Hydrophytic Vegetation¹ (Explain) 4. ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 8. **Definitions of Vegetation Strata** 9. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: Herb - All herbaceous (non-woody) plants, regardless of 1. Parthenocissus quinquefolia / Virginia creeper FACU size, and woody plants less than 3.28 ft tall. 2. Toxicodendron radicans / Eastern poison ivy FAC Woody vines - All woody vines greater than 3.28 ft in 3. 100 = Total Cover Hydrophytic Vegetation Present? Yes ____ No ____

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: SP08@1W

	•		eded to document th		or commi	tile abou	nice of indicator	3.,
Depth (inches)	Matrix Color (moist)	%	Color (moist)	K Features %	Type1	Loc²	Texture	Remarks
0-18	10 yr 4/2	70	10 yr 5/3	30	Type ¹ RM	M	Loamy/Clayey	Reductions in the matrix
	ncentration, D=Depletio	DM=Dad	rood Matrix MS-Mask	- Cond Cond Cond Cond Cond Cond Cond Cond			21 202	tion: DI =Doro Lining M=Matrix
lydric Soil II	· '	n, Rivi=Redi	uced Matrix, MS=Masi	Red Sand Gr	ains.			stion: PL=Pore Lining, M=Matrix.
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	oipedon (A2)	.RA 149B)	Polyvalue Below Thin Dark Surfa Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR dineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) fons (F8)	R R, MLRA	A 149B)	Coas 5 cm Dark Polyv Thin I Iron-N Piedr Mesic Red I Very	Muck (A10) (LRR K, L, MLRA 149B) t Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) ralue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R) mont Floodplain Soils (F19) (MLRA 149B c Spodic (TA6) (MLRA 144A, 145, 149B Parent Material (F21) Shallow Dark Surface (TF12) r (Explain in Remarks)
Restrictive L	ayer (if observed):		, a					
Type: Depth (in	ches):	18					Hydric Soil P	resent? Yes X No
demarks:	Impaction							

Project/Site:	Heritage Wind	City/Cour	nty: Orleans C	county	Sampling Date:	06/13/2019
Applicant/Owner:	Heritage Wind,	LLC (Apex Clean Energy)	•	State: New York	· · · · —	SP08@2U
Investigator(s):	Sp Bk	Section, ⁷	Township, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc):	Hillside	Local relief (conca	ave, convex, none):	concave	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes F	orests Lat: 43.158899	Long:	-78.149826	Datum	: WGS 1984
Soil Map Unit Name:		Lyons silt loam		NWI classification	on:	
Are climatic / hydrologic condition	s on the site typical for this	s time of year? Yes)	K No (If no	o, explain in Remark	s.)	
Are Vegetation X, Soil	X , or Hydrology	X significantly disturbed	Are "Normal C	ircumstances" prese	ent? Yes X	(No
		naturally problematic		olain any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map s	howing sampling po	oint locations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Area			
Hydric Soil Present?	Yes	No X	within a Wetland?	Yes	No X	_
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Si	te ID:		
Remarks: (Explain alternative p Sp082u	·	. ,				
	erenced in Report	as: 2Z				
HYDROLOGY						
Wetland Hydrology Indicators	s:					
Primary Indicators (minimum of	one required; check all th	at apply)		Secondary Indica	ators (minimum of ty	vo required)
Surface Water (A1)	_	Water-Stained Leaves (B9)	Surface Soi	l Cracks (B6)	
High Water Table (A2)	_	Aquatic Fauna (B13)		Drainage Pa	atterns (B10)	
Saturation (A3)	_	Marl Deposits (B15)		Moss Trim L	ines (B16)	
Water Marks (B1)	_	Hydrogen Sulfide Odor	(C1)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	_	Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)	_	Presence of Reduced In	on (C4)	Saturation \	/isible on Aerial Ima	gery (C9)
Algal Mat or Crust (B4)	_	Recent Iron Reduction in	n Tilled Soils (C6)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)	_	Thin Muck Surface (C7)		Geomorphic	Position (D2)	
Inundation Visible on Aeria	l Imagery (B7)	Other (Explain in Remai	rks)	Shallow Aqu	uitard (D3)	
Sparsely Vegetated Conca	ve Surface (B8)			Microtopogr	raphic Relief (D4)	
				FAC-Neutra	l Test (D5)	
Field Observations:						
Surface Water Present?	Yes No _ X	Depth (inches):				
Water Table Present?	Yes No X	Depth (inches):				
Saturation Present?	Yes No X	Depth (inches):	Wetland Hy	drology Present?	Yes	No X
(includes capillary fringe)						
Describe Recorded Data (strea	m gauge, monitoring well.	aerial photos, previous ins	spections), if available:			
	5 5 ,g //s ,	, , , , , , , , , , , , , , , , , , , ,	. ,,			
Remarks:						

EGETATION - Use scientific names of plants.				Sampling Point: SP08@20
ree Stratum (Plot size: 30)	Absolute %Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
<u> </u>				Total Number of Dominant Species Across All Strata: 1 (B)
			- <u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/I
i. 				Prevalence Index worksheet:
	0	= Total Cov	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0
·				FACW species 0 x 2 = 0
				FAC species 0 x 3 = 0
l				FACU species 10 x 4 = 40
				UPL species 0 x 5 = 0
j				Column Totals: (A) (
5.				Prevalence Index = B/A = 4.0
derb Stratum (Plot size: 1 Sq. M.)	0	= Total Cov	er	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
. Glycine max / Soybean	80	Yes		3 - Prevalence Index ≤3.0¹
Zea mays ssp. mays / Corn	10	No No		4 - Morphological Adaptations (Provide supporting
3. Arctium minus / Common burdock	10	No	FACU	Problematic Hydrophytic Vegetation¹ (Explain)
l		_		
5				¹Indicators of hydric soil and wetland hydrology must
S				be present, unless disturbed or problematic.
		_		Definitions of Vegetation Strata
)				
10 11				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2		= Total Cov		Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
Noody Vine Stratum (Plot size:30)		_		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
 <u>.</u>				
 J.				Woody vines - All woody vines greater than 3.28 ft in height.
 -				noight.
	0	= Total Cov	er	Hydrophytic Vegetation
				Present? Yes No X
Remarks: (Explain alternative procedures here or in a separa	ate report.)			

SOIL Sampling Point: SP08@2U

Profile Descr	ription: (Describe to t	he depth ne	eded to document th	e indicator	or confirm	the abse	ence of indicators.)		
Depth	Matrix			Features			,		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks	
0-8	10 yr 3/3	100					Loamy/Clayey		
8-18	5 yr 6/3	80	7.5 yr 6/6	20	С	М	Loamy/Clayey		
							<u></u>		
			-				- <u>- </u>		
							· — —		
		·							
							·		
		·							
		· ——							
							·		
¹Type: C=Con	centration, D=Depletion	n, RM=Red	uced Matrix, MS=Mask	ed Sand Gr	ains.		²Location	: PL=Pore Lining, M=N	Matrix.
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) sipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) I Below Dark Surface (A12) lucky Mineral (S1) leyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, MI	_RA 149B)	Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Surf Depleted Dark S Redox Depression	ce (S9) (LR ineral (F1) (flatrix (F2) (F3) face (F6) urface (F7) ons (F8)	R R, MLRA (LRR K, L)	(149B)	9B) 2 cm Muc Coast Pra 5 cm Muc Dark Suri Polyvalue Thin Dark Iron-Man Piedmont Mesic Sp Red Pare Very Sha Other (Ex	Problematic Hydric ck (A10) (LRR K, L, N airie Redox (A16) (LF cky Peat or Peat (S3) face (S7) (LRR K, L) a Below Surface (S8) (Surface (S9) (LRR I ganese Masses (F12) t Floodplain Soils (F19) odic (TA6) (MLRA 14 ant Material (F21) llow Dark Surface (TF kplain in Remarks)	ILRA 149B) RR K, L, R) (LRR K, L, R) (LRR K, L) K, L) (LRR K, L, R) (LRR K, L, R) (MLRA 149B) 44A, 145, 149B)
Restrictive L	ayer (if observed):								
Type:	-								
Depth (inc	ches):	18					Hydric Soil Prese	ent? Yes	NoX
Remarks:	mpaction								

Project/Site:	Heritage Wind	City/Coun	ty: Orleans C	ounty	Sampling Date:	06/13/2019
Applicant/Owner:	Heritage Wind, I	LC (Apex Clean Energy)	S	tate: New York	Sampling Point:	SP08-2W
Investigator(s):	Sp Bk	Section, T	ownship, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc):	Hillside	Local relief (conca	ve, convex, none):	concave	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes F	orests Lat: 43.1613	Long:	-78.1506	Datum	n: WGS 1984
Soil Map Unit Name:		Lyons silt loam	_	NWI classification	n: PEM	
Are climatic / hydrologic condition	s on the site typical for this	time of year? Yes X	No (If no	, explain in Remark	(s.)	
Are Vegetation X, Soil	X , or Hydrology	x significantly disturbed	? Are "Normal Ci	rcumstances" prese	ent? Yes X	(No
Are Vegetation, Soil	, or Hydrology	naturally problematic?	(If needed, exp	lain any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map s	nowing sampling po	int locations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Presen	t? Yes X	No	Is the Sampled Area			
Hydric Soil Present?	Yes X	No	within a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Si	te ID:	Sp 08-2w	<u>-</u>
Remarks: (Explain alternative p	orocedures here or in a sep erenced in Report	. ,				
HYDROLOGY						
Wetland Hydrology Indicators	s:					
Primary Indicators (minimum of		at apply)		Secondary Indic	ators (minimum of t	wo required)
X Surface Water (A1)		Water-Stained Leaves (E	39)		l Cracks (B6)	<u></u>
X High Water Table (A2)		Aquatic Fauna (B13)	,		atterns (B10)	
X Saturation (A3)		Marl Deposits (B15)		Moss Trim I	` ,	
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres	•	Crayfish Bu	, ,	
Drift Deposits (B3)	_	Presence of Reduced Iro	• ,		√isible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)	_	Recent Iron Reduction in	` '		Stressed Plants (D1	. ,
Iron Deposits (B5)	_	Thin Muck Surface (C7)	,		c Position (D2)	,
Inundation Visible on Aeria	al Imagery (B7)	Other (Explain in Remark	ks)	Shallow Aq	` ,	
Sparsely Vegetated Conca	ave Surface (B8)	. , ,	,	Microtopogi	raphic Relief (D4)	
	, ,			FAC-Neutra	. , ,	
Field Observations:						
Surface Water Present?	Yes X No	Depth (inches):	6			
Water Table Present?	Yes X No	Depth (inches):	8			
Saturation Present?	Yes X No	Depth (inches):	3 Wetland Hy	drology Present?	Yes X	No
(includes capillary fringe)		_ ' \ /		0,		
, , , ,						
Describe Recorded Data (strea	m gauge, monitoring well,	aerial photos, previous ins	pections), if available:			
Remarks:						
romano.						

Absolute %Cover	Dominant	Indicator	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:		-	
	Species?	Status		_	5	_ (A)
5	Yes	OBL	Total Number of Dominant			
			Species Across All Strata:		5	_ (B)
			Percent of Dominant Species			
			That Are OBL, FACW, or FAC:		100.0	_ (A/B
			Prevalence Index worksheet	:		
5	= Total Cov	er	Total % Cover of:	N	fultiply by:	
	_		OBL species 5	_ x 1 =	5	
40	Yes	FACW	FACW species 40	x 2 =	80	
20	Yes	FAC	FAC species 90	x 3 =	270	
			FACU species 0	x 4 =	0	
			UPL species 0	x 5 =	0	
			Column Totals: 135	(A)	355	(E
	_		Prevalence Index = B/A	=	2.6296	
			Hydrophytic Vegetation Indi	cators:		
60	_ = lotal Cov	er	1 - Rapid Test for Hydropl	nytic Veg	etation	
				-		
			3 - Prevalence Index ≤3.0	1		
30	Yes	FAC	4 - Morphological Adaptat	ions (Pro	vide suppor	tina
						-
				3	(
			¹Indicators of hydric soil and w	etland hy	drology mus	st
	_	_				
			Definitions of Vegetation Str	ata		
						eter at
			Sapling/shrub - Woody plants	less tha	n 3 in. DBH	and
70	= Total Cov	er				
			Herb - All herbaceous (non-wo	ody) plai an 3.28 ft	nts, regardle tall.	ss of
						in
			height.	J		
	= Total Cov	er	Hydrophytic			
	_ 10141 001	0.	Vegetation	X N	lo	
	5 40 20 60 40 30	5 = Total Cov 40 Yes 20 Yes 60 = Total Cov 40 Yes 30 Yes 70 = Total Cov	5 = Total Cover 40	Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Total % Cover of: OBL species 5 FACW species 5 FACW species 90 FAC species 0 UPL species 0 Column Totals: 135 Prevalence Index = B/A Hydrophytic Vegetation India 1 - Rapid Test for Hydropt X 2 - Dominance Test is >50 3 - Prevalence Index ≤3.0 4 - Morphological Adaptat Problematic Hydrophytic V 'Indicators of hydric soil and w be present, unless disturbed o Definitions of Vegetation Str Tree - Woody plants 3 in. (7.6 breast height (DBH), regardless Sapling/shrub - Woody plants greater than or equal to 3.28 ft Herb - All herbaceous (non-woize, and woody plants less that Woody vines - All woody vine height. D = Total Cover Hydrophytic Hydrophytic Hydrophytic	Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: MOBL species 5 x 1 = FACW species 40 x 2 = FACW species 90 x 3 = FACU species 0 x 4 = UPL species 0 x 5 = Column Totals: 135 (A) Prevalence Index = B/A = ### Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Veg X 2 - Dominance Test is >50% 3 - Prevalence Index ≤ 3.0¹ 4 - Morphological Adaptations (Pro Problematic Hydrophytic Vegetation **Indicators of hydric soil and wetland hy be present, unless disturbed or problem #### Definitions of Vegetation Strata **Tree - Woody plants 3 in. (7.6 cm) or m breast height (DBH), regardless of heig Sapling/shrub - Woody plants less than greater than or equal to 3.28 ft (1 m) tal #### Herb - All herbaceous (non-woody) plants size, and woody plants less than 3.28 ft Woody vines - All woody vines greater height. ##### Definitions of Vegetation ##### Definitions of Vegetation Strata **Tree - Woody plants less than 3.28 ft Woody vines - All woody vines greater height. ###################################	Species Across All Strata: 5

SOIL Sampling Point: SP08-2W

Profile Descr	ription: (Describe to th	ne depth nee	eded to document th	e indicator	or confirm	the abse	nce of indicators	s.)
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-16	10 yr 4/1	100					Loamy/Clayey	
16-20	5 yr 6/3	90	5 yr 6/1	10	D	М	Loamy/Clayey	
¹Type: C=Con	ncentration, D=Depletio	n, RM=Redu	ced Matrix, MS=Mask	ed Sand Gra	ains.		²Locat	tion: PL=Pore Lining, M=Matrix.
Black His Hydroger Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) sipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) I Below Dark Surface (A12) lucky Mineral (S1) sleyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, ML)	RA 149B)	Polyvalue Below Thin Dark Surface Loamy Mucky M X Loamy Gleyed M X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depression hydrology must be pression	ce (S9) (LRi lineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ons (F8)	R R, MLRA LRR K, L)	A 149B)	9B) 2 cm l Coast 5 cm l Dark \$ Polyva Thin E Iron-N Piedm Mesic Red P Very \$ Other	for Problematic Hydric Soils ³ : Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) alue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R) nont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B) Parent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Restrictive L. Type:	ayer (if observed):							
, , <u> </u>	ches):	18					Hydric Soil Pr	resent? Yes X No
Remarks:								

Project/Site:	Heritage Wind	City/Cou	nty: Orleans	County	Sampling Date:	06/13/2019
Applicant/Owner:	Heritage Wind	, LLC (Apex Clean Energy)		State: New York	Sampling Point:	SP10-1U
Investigator(s):	Sp Bk	Section,	Township, Range:	To	own of Barre	
Landform (hillslope, terrace, etc):	Lowland & Hillsio	de Local relief (conc	ave, convex, none):	convex	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes	Forests Lat: 43.157418	Long:	-78.172383	Datun	n: WGS 1984
Soil Map Unit Name:		Churchville silt loam		NWI classificati	on:	
Are climatic / hydrologic condition	s on the site typical for th	is time of year? Yes	X No (If	no, explain in Remar	ks.)	
		X significantly disturbe		Circumstances" pres	ent? Yes <u>></u>	K No
Are Vegetation, Soil _	, or Hydrology	naturally problemation	? (If needed, e	xplain any answers ir	n Remarks.)	
SUMMARY OF FINDINGS	- Attach site map	showing sampling p	oint locations, trans	sects, important	features, etc.	
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Area			
Hydric Soil Present?	Yes X	No No	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland			-
Remarks: (Explain alternative p Sp10-1u Refe	rocedures here or in a se	. ,				
HYDROLOGY						
Wetland Hydrology Indicators	*!					
Primary Indicators (minimum of		hat apply)		Secondary Indic	ators (minimum of t	wo required)
Surface Water (A1)		Water-Stained Leaves	(B9)		il Cracks (B6)	
High Water Table (A2)	_	Aquatic Fauna (B13)	(-)		atterns (B10)	
Saturation (A3)	_	Marl Deposits (B15)			Lines (B16)	
Water Marks (B1)	_	Hydrogen Sulfide Odor	(C1)	Dry-Season	n Water Table (C2)	
Sediment Deposits (B2)	_	Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	_	Presence of Reduced I	ron (C4)	Saturation	Visible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)	_	Recent Iron Reduction	in Tilled Soils (C6)	Stunted or	Stressed Plants (D1	1)
Iron Deposits (B5)	_	Thin Muck Surface (C7)	Geomorphi	c Position (D2)	
Inundation Visible on Aeria	l Imagery (B7)	Other (Explain in Rema	arks)	Shallow Ac	uitard (D3)	
Sparsely Vegetated Conca	ve Surface (B8)	_		Microtopog	raphic Relief (D4)	
				FAC-Neutra	al Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	Depth (inches):				
Saturation Present?	Yes No X	Depth (inches):	Wetland I	Hydrology Present?	Yes	No X
(includes capillary fringe)						
Describe Recorded Data (streat	m gauge, monitoring wel	l, aerial photos, previous in	spections), if available:			
Remarks:						

				Sam	pling Poi	nt: S	P10-1U
Absolute %Cover	Dominant Species?	Indicator Status	Number of Dominal That Are OBL, FAC	nt Species SW, or FAC:		0	(A)
						0	(B)
						div/0	(A/B)
					M	ultiply by	
0	_ = Total Cov	er	-				
					-		
					-		
			· —		-		
					-		
	_				-		
· ·	_		_		-		(B)
						41170	
0			1 - Rapid Test 2 - Dominance 3 - Prevalence 4 - Morphologi	for Hydrophy Test is >50° Index ≤3.0¹ cal Adaptatio	ytic Vege % ons (Prov	vide suppo	-
	_	<u> </u>			-		ıst
			Definitions of Veg	etation Stra	ta		
							neter at
	_						1 and
	_		Herb - All herbaced	ous (non-woo	ody) plan	ts, regard	less of
			Woody vines - All height.	woody vines	greater	than 3.28	ft in
0	= Total Cov	er	Hydrophytic Vegetation Present?	Yes	N	o <u>X</u>	_
ate report.)							
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	%Cover Species? 0 = Total Cov 1 = Total Cov 1 = Total Cov 1 = Total Cov	%Cover Species? Status 0 = Total Cover 0 = Total Cover 0 = Total Cover 0 = Total Cover	Absolute Dominant Indicator %Cover Species? Status Total Number of Dominant That Are OBL, FACUS pecies Across All Percent of Dominant That Are OBL, FACUS pecies Across All Percent of Dominant That Are OBL, FACUS pecies FACW species FACW species FACUS pecies UPL species UPL species UPL species Column Totals: Prevalence In Prevalence In Prevalence In Prevalence In The Indicators of hydric be present, unless Definitions of Veg Tree - Woody plant breast height (DBH Sapling/shrub - W greater than or equivalence In Prevalence In The Indicators of North Present?	Absolute Dominant Indicator Species? Status	Absolute Dominant Indicator %Cover Species? Status Total Number of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: MOBL species 0 x1 = FACW species 0 x4 = UPL species 0 x5 = Column Totals: 0 (A) Prevalence Index = B/A = UPL species 1 x5 = Column Totals: 0 (A) Prevalence Index ≤3.0¹ 4 - Morphological Adaptations (Prophytic Vegetation Indicators: "Indicators of hydric soil and wetland hybe present, unless disturbed or problem." Definitions of Vegetation Strata Tree - Woody plants 3 in. (7.6 cm) or motherast height (DBH), regardless of height stream or equal to 3.28 ft (1 m) tall Herb - All herbaceous (non-woody) plan size, and woody vines related theight. Definition Present? Yes Note that the species of the present of the prophytic Vegetation Present? Yes Note that the present that the present? Yes Note that the present that the pre	Absolute Dominant Indicator %Cover Species? Status Total Number of Dominant Species That Are OBL, FACW, or FAC: 0 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 Percent of Dominant Species That Are OBL, FACW, or FAC: div/0 Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x1 = 0 FACW species 0 x2 = 0 FACW species 0 x3 = 0 FACW species 0 x4 = 0 UPL species 0 x5 = 0 Column Totals: 0 (A) 0 Prevalence Index = B/A = div/0 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.0¹ 4 - Morphological Adaptations (Provide support of the Hydrophytic Vegetation Strata) "Indicators of hydric soil and wetland hydrology may be present, unless disturbed or problematic." Definitions of Vegetation Strata Tree - Woody plants 3 in. (7.6 cm) or more in diam breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DB-greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regard size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 height. Hydrophytic Vegetation Present? Yes No X

SOIL Sampling Point: SP10-1U

	ription: (Describe to t	ne deptir ne			or commi	tile abse	nice of mulcators.		
Depth	Matrix			Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remark	S
0-8	10 yr 3/4	100					Loamy/Clayey		
8-18	10 yr 6/2	70	10 yr 5/6	30	C	M	Loamy/Clayey		
Type: C=Cor	ncentration, D=Depletic	on, RM=Red	uced Matrix, MS=Mask	ked Sand Gr	ains.		²Location:	PL=Pore Lining, M:	=Matrix.
Hydric Soil I								Problematic Hydri	
Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Su	pipedon (A2) stic (A3) en Sulfide (A4) d Layers (A5) d Below Dark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) I Matrix (S6) rface (S7) (LRR R, MI	_RA 149B)	Polyvalue Below Thin Dark Surfar Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR lineral (F1) Matrix (F2) (F3) face (F6) Surface (F7) ons (F8)	RR R, MLRA	149B)	Coast Pra 5 cm Mucl Dark Surfa Polyvalue Thin Dark Iron-Mang Piedmont Mesic Spc Red Parer Very Shall Other (Exp	(A10) (LRR K, L, Irie Redox (A16) (Let Redox (A16) (Let Redox (A16) (Let Redox (A16) (LR K, Let Redox (A16) (LR K,	LRR K, L, R)) (LRR K, L, R) -)) (LRR K, L) R K, L) 2) (LRR K, L, F 19) (MLRA 149E
	hydrophytic vegetation	and wetland	d hydrology must be pi	resent, unles	ss disturbed	or proble	matic.		
Type:	, 5. (2200.104).								
Depth (in	ches):	18					Hydric Soil Prese	nt? Yes	No X
Remarks:									

Project/Site:	Heritage Wind	City/County:	Orleans Count	.y	Sampling Date:	06/13/2019
Applicant/Owner:	Heritage Wind, LLC	C (Apex Clean Energy)	State:	New York	Sampling Point:	SP10-1W
Investigator(s):	Sp Bk	Section, Towns	ship, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc	c): Channel (active)	Local relief (concave, c	onvex, none):	convex	Slope ((%):Gentle (0-5%
Subregion (LRR or MLRA): LI	RR L - Central Great Lakes Fore	ests Lat: 43.157335	Long:	-78.172376	Datum	WGS 1984
Soil Map Unit Name:	Chu	rchville silt loam	1	NWI classification	on: R4	ISB
Are climatic / hydrologic conditi	ions on the site typical for this tir	ne of year? Yes X	No (If no, exp	plain in Remark	s.)	
Are Vegetation X, Soil	X , or Hydrology X	significantly disturbed?	Are "Normal Circum	าstances" prese	ent? Yes X	No
Are Vegetation, Soil	X, or Hydrology	_naturally problematic?	(If needed, explain	any answers in	Remarks.)	
SUMMARY OF FINDING	SS - Attach site map sho	wing sampling point	locations, transects	, important	features, etc.	
Hydrophytic Vegetation Pres	ent? Yes X	No Is ti	ne Sampled Area			
Hydric Soil Present?			nin a Wetland?	Yes X	No	
Wetland Hydrology Present?			es, optional Wetland Site ID):	SP10-1w / SP12-1w	1
Àctive drainage	e procedures here or in a separa e channel from adjacent fields eferenced in Report as	,				
HYDROLOGY						
Wetland Hydrology Indicat	oro:					
	ors. of one required; check all that a	annly)	9	econdary Indic	ators (minimum of tw	(o required)
X Surface Water (A1)	· · · · · · · · · · · · · · · · · · ·	Vater-Stained Leaves (B9)	<u> </u>		l Cracks (B6)	o required)
X High Water Table (A2)		Aquatic Fauna (B13)	_		atterns (B10)	
X Saturation (A3)		Marl Deposits (B15)	_	Moss Trim L	, ,	
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	_		Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres on Liv	ving Roots (C3)	Crayfish Bu	` ,	
X Drift Deposits (B3)		Presence of Reduced Iron (C			/isible on Aerial Ima	nery (C9)
Algal Mat or Crust (B4)		Recent Iron Reduction in Tille	<i>'</i>		Stressed Plants (D1)	5 , (,
Iron Deposits (B5)		hin Muck Surface (C7)			Position (D2)	
Inundation Visible on A		Other (Explain in Remarks)	_	Shallow Aqu	` '	
Sparsely Vegetated Cor		outer (Explain in Francis)	_		aphic Relief (D4)	
	(20)		_	FAC-Neutra	. , ,	
			_		,	
Field Observations:						
Surface Water Present?	YesX_ No	Depth (inches): 6				
Water Table Present?	Yes X No	Depth (inches): 6				
Saturation Present?	Yes X No	Depth (inches): 1	Wetland Hydrole	ogy Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Data (str	ream gauge, monitoring well, ae	rial photos, previous inspecti	ons), if available:			
Remarks: Silt stained leav	/es					

VEGETATION - Use scientific names of plants.				Sampling Point: SP10-1W
Tree Stratum (Plot size:30) 1 2 3 4 5				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)
6				Prevalence Index worksheet:
7		= Total Cov		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:				OBL species 80 x 1 = 80 FACW species 0 x 2 = 0 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 80 (A) 80 (B) Prevalence Index = B/A = 1.0
7	0 80		OBL	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.0¹ 4 - Morphological Adaptations (Provide supporting
3				Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8		- 	·	Definitions of Vegetation Strata Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12	80	= Total Cov		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.
··	0	= Total Cov	er	Hydrophytic Vegetation Present? Yes X No
Remarks: (Explain alternative procedures here or in a separat	e report.)			

SOIL Sampling Point: SP10-1W

SUIL								Sampling Point. SP10-177
Profile Desci	ription: (Describe to t	he depth ne	eded to document the	e indicator	or confirm	the abse	nce of indicators.)	
Depth	Matrix			Features			,	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	- Texture	Remarks
0-6	10 yr 3/2	100					Loamy/Clayey	
10-20	5 yr 4/4	90	5 yr 6/2	10		М	Loamy/Clayey	
							·	
							·	
				-	·			
				-	·			
				-	·			
				-	·			
							- 	
							- 	
							- 	
¹Type: C=Cor	ncentration, D=Depletion	n, RM=Redu	uced Matrix, MS=Mask	ed Sand Gr	ains.		²Location	: PL=Pore Lining, M=Matrix.
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) pipedon (A2)	_RA 149B)	Polyvalue Below Thin Dark Surface Loamy Mucky Mi Loamy Gleyed M X Depleted Matrix Redox Dark Surf Depleted Dark S Redox Depression	ce (S9) (LR inneral (F1) flatrix (F2) (F3) face (F6) urface (F7) ons (F8)	RR R, MLRA	A 149B)	9B) 2 cm Muc Coast Pra 5 cm Muc Dark Surf Polyvalue Thin Dark Iron-Mang Piedmont Mesic Sp X Red Pare Very Shal Other (Ex	r Problematic Hydric Soils ³ : ck (A10) (LRR K, L, MLRA 149B) cairie Redox (A16) (LRR K, L, R) cky Peat or Peat (S3) (LRR K, L, R) face (S7) (LRR K, L) ce Below Surface (S8) (LRR K, L) ce Surface (S9) (LRR K, L) ganese Masses (F12) (LRR K, L, R) tf Floodplain Soils (F19) (MLRA 149B) control (TA6) (MLRA 144A, 145, 149B) cent Material (F21) Illow Dark Surface (TF12) ceplain in Remarks)
Restrictive L	ayer (if observed):							
Type:								
Depth (in	ches):	20					Hydric Soil Prese	ent? Yes X No
Remarks:								

Project/Site:	Heritage Wind	City/Cour	nty: Orleans C	ounty	Sampling Date:	06/13/2019		
Applicant/Owner:	Heritage Wind,	LLC (Apex Clean Energy)	S	tate: New York	Sampling Point:	SP13-1U		
Investigator(s):	Sp Bk	Section, 7	Township, Range:	To	own of Barre			
Landform (hillslope, terrace, etc):	Flat	Local relief (conca	ave, convex, none):	none	Slope	(%):Gentle (0-5%		
Subregion (LRR or MLRA): LRR	L - Central Great Lakes F	orests Lat: 43.163339	Long:	-78.167769	Datum	n: WGS 1984		
Soil Map Unit Name:		Hilton loam		NWI classificati	on:			
Are climatic / hydrologic condition	s on the site typical for thi	s time of year? Yes>	K No (If no	, explain in Remarl	ks.)			
Are Vegetation X, Soil	X , or Hydrology	X significantly disturbed	? Are "Normal Ci	rcumstances" prese	ent? Yes>	(No		
Are Vegetation X, Soil	X , or Hydrology	X naturally problematic	? (If needed, exp	lain any answers in	Remarks.)			
SUMMARY OF FINDINGS	- Attach site map s	howing sampling po	oint locations, transe	cts, important	features, etc.			
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Area					
Hydric Soil Present?	Yes X	No	within a Wetland?	Yes	No X			
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Si			-		
Remarks: (Explain alternative p Sp13-1u Refe	rocedures here or in a seperenced in Report	. ,						
HYDROLOGY								
Wetland Hydrology Indicators								
Primary Indicators (minimum of		at apply)		Secondary Indic	ators (minimum of t	wo required)		
Surface Water (A1)	,	Water-Stained Leaves (I	B9)	X Surface So	•			
High Water Table (A2) High Water Table (A2) Aquatic Fauna (B13)			-,		atterns (B10)			
Saturation (A3)		Marl Deposits (B15)		Moss Trim Lines (B16)				
Water Marks (B1)		Hydrogen Sulfide Odor ((C1)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Oxidized Rhizospheres	on Living Roots (C3)	·				
Drift Deposits (B3)		Presence of Reduced In	<u> </u>					
Algal Mat or Crust (B4)		Recent Iron Reduction in	<u> </u>					
Iron Deposits (B5)		Thin Muck Surface (C7)	· / — · /					
Inundation Visible on Aeria	al Imagery (B7)	Other (Explain in Remar	·ks)	_				
Sparsely Vegetated Conca	ve Surface (B8)	_		Microtopog	raphic Relief (D4)			
				FAC-Neutra	al Test (D5)			
Field Observations:								
Surface Water Present?	Yes No X	Depth (inches):						
Water Table Present?	Yes No X	Depth (inches):						
Saturation Present?	Yes No X	Depth (inches):	Wetland Hyd	drology Present?	Yes	No X		
(includes capillary fringe)		_ · · · /						
. , , ,								
Describe Recorded Data (stream	m gauge, monitoring well,	aerial photos, previous ins	spections), if available:					
Remarks:								
ixemains.								

VEGETATION - Use scientific names of plants.				S	ampling Poir	nt: SF	213-1U
Tree Stratum (Plot size:30) 12345				Dominance Test workshee Number of Dominant Specie That Are OBL, FACW, or FA Total Number of Dominant Species Across All Strata: Percent of Dominant Specie That Are OBL, FACW, or FA	s C: s	0 1 0.0	_ (A) _ (B) (A/B)
6				Prevalence Index workshe	et·		
7		= Total Cov		Total % Cover of:		ultiply by:	
Capling/Chruh Stratum (Diet size: 15		_ = 10tal Cov	er	OBL species 0	x 1 =	0	
Sapling/Shrub Stratum (Plot size: 15)				FACW species 0	x 2 =	0	
1				FAC species 0	x 3 =	0	
2				FACU species 0	x 4 =	0	
4				UPL species 0	x 5 =	0	
				Column Totals: 0	(A)	0	(B)
5.				Prevalence Index = B/		div/0	(-)
6		_				4.170	
7	5	Yes		Hydrophytic Vegetation Inc 1 - Rapid Test for Hydro 2 - Dominance Test is > 3 - Prevalence Index ≤3 4 - Morphological Adap Problematic Hydrophyti ¹Indicators of hydric soil and be present, unless disturbed Definitions of Vegetation S Tree - Woody plants 3 in. (7.)	phytic Vege 50% .01 eations (Prov c Vegetation wetland hyd or problema	vide suppor 1 (Explain) drology mu atic.	st
11.				breast height (DBH), regardl			
12.	5			Sapling/shrub - Woody plan greater than or equal to 3.28			and
Woody Vine Stratum (Plot size:		-		Herb - All herbaceous (non- size, and woody plants less Woody vines - All woody vin	woody) plant than 3.28 ft t	ts, regardle tall.	
3.	_	-		height.			
4.	0	= Total Cov	er	Hydrophytic Vegetation Present? Yes	No	o <u>X</u>	
Remarks: (Explain alternative procedures here or in a separat	e report.)						

SOIL Sampling Point: SP13-1U

SUIL								-	sampling Poli	ii. <u>3P</u>	13-10
Profile Desc	ription: (Describe to t	he depth ne	eded to document th	e indicator	or confirm	the abse	nce of indicators	.)			
Depth	Matrix			Features				,			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture		Remarks	3	
0-10	10 yr 3/2	100		·			Loamy/Clayey				
¹Type: C=Cor	ncentration, D=Depletio	n, RM=Redu	ıced Matrix, MS=Mask	ed Sand Gr	ains.		²Locati	ion: PL=Po	re Lining, M	-Matrix.	
Black Hi Hydroge Stratified Depleted Thick Da Sandy N Sandy R Stripped Dark Sui	(A1) pipedon (A2)	.RA 149B)	Polyvalue Below Thin Dark Surface Loamy Mucky M Loamy Gleyed N Depleted Matrix Redox Dark Surface Depleted Dark S Redox Depression	ce (S9) (LR ineral (F1) (Aatrix (F2) (F3) face (F6) curface (F7) ons (F8)	R R, MLRA	A 149B)	9B) 2 cm M Coast 5 cm M Dark S Polyva Thin D Iron-M Piedm Mesic Red Pa Very S Other (Muck (A10) Prairie Rec Mucky Peat Surface (S7 Ilue Below ark Surface anganese ont Floodp Spodic (TA arent Mate	k Surface (T	MLRA 149 .RR K, L, R) (LRR K, L) (LRR K, L 2) (LRR K, E 2) (LRR K, E 9) (MLRA 144A, 145,	R) L, R) L) , L, R) 149B)
Restrictive I	.ayer (if observed):										
Type:	, (22301104).										
Depth (in	ches):	10					Hydric Soil Pro	esent?	Yes	No _	X
Remarks:	Impactiuon										

Project/Site:	Heritage Wind	City/Cou	nty: Orleans	County	Sampling Date:	06/13/2019
Applicant/Owner:	Heritage Wind, LLC	(Apex Clean Energy)	•	State: New York	· · · -	SP13-1W
Investigator(s):	Sp Bk	Section,	Township, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc):	Bowl-shaped depresssion	Local relief (conc	ave, convex, none):	concave	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR L	Central Great Lakes Fores	sts Lat: 43.163228	Long:	-78.167286		: WGS 1984
Soil Map Unit Name:	Арр	leton silt loam,		NWI classification	on: P	PUB
Are climatic / hydrologic conditions	on the site typical for this tim	ne of year? Yes	X No (If i	no, explain in Remark	(s.)	
Are Vegetation , Soil	, or Hydrology	significantly disturbed	d? Are "Normal (Circumstances" prese	ent? Yes X	. No
	, or Hydrology		? (If needed, ex	xplain any answers in	Remarks.)	
SUMMARY OF FINDINGS -	Attach site map show	- wing sampling p	oint locations, trans	ects, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X I	No	Is the Sampled Area			
Hydric Soil Present?	Yes X I	No	within a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland	Site ID:	Sp13-1w	
Remarks: (Explain alternative pro Pond in middle of w		,				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of o	· · · · · · · · · · · · · · · · · · ·		(DO)		ators (minimum of tv	vo requirea)
Surface Water (A1)		/ater-Stained Leaves ((89)		l Cracks (B6)	
High Water Table (A2)		quatic Fauna (B13)			atterns (B10)	
X Saturation (A3)		arl Deposits (B15)	(04)	Moss Trim L	` ,	
Water Marks (B1)		ydrogen Sulfide Odor	` '		Water Table (C2)	
Sediment Deposits (B2)		xidized Rhizospheres	• , ,	Crayfish Bu	` '	(CO)
Drift Deposits (B3)		resence of Reduced Ir	` '		/isible on Aerial Ima	
Algal Mat or Crust (B4) Iron Deposits (B5)		ecent Iron Reduction i	` '		Stressed Plants (D1) c Position (D2))
Inundation Visible on Aerial		hin Muck Surface (C7) ther (Explain in Rema		Shallow Aqu	` ,	
Sparsely Vegetated Concav		iller (Explain in Nema	185)		raphic Relief (D4)	
Sparsely vegetated Coricav	e Surface (Do)			FAC-Neutra	. ,	
				FAC-Neulia	ii lest (D5)	
Field Observations:						
Surface Water Present?		Depth (inches):				
Water Table Present?	Yes NoX I	Depth (inches):				
Saturation Present?	Yes X No 1	Depth (inches):	1 Wetland H	lydrology Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Data (stream	gauge, monitoring well, aeri	al photos, previous in	spections), if available:			
Remarks:						

Free Stratum (Plot size:30) 2 3 5 6			Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 Total Number of Dominant	_ (A)
3. 1. 5.					
·				Species Across All Strata: 2	_ (B)
-				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0	_ (A/E
				Prevalence Index worksheet:	
	0	= Total Cov	er	Total % Cover of: Multiply by:	
sapling/Shrub Stratum (Plot size:15)	· <u> </u>			OBL species 40 x 1 = 40	
·				FACW species 30 x 2 = 60	
				FAC species 0 x 3 = 0	
				FACU species 0 x 4 = 0	
				UPL species 0 x 5 = 0	
				Column Totals: 70 (A) 100	(
				Prevalence Index = B/A = 1.4286	
erb Stratum (Plot size: 1 Sq. M.)	0	= Total Cov	 er	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation	
Acorus calamus / Sweetflag	40	Yes	OBL	X 2 - Dominance Test is >50%	
. Phragmites australis / Common reed	30	Yes	FACW	3 - Prevalence Index ≤3.0¹	
				4 - Morphological Adaptations (Provide suppor Problematic Hydrophytic Vegetation¹ (Explain)	•
·				¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	st
				Definitions of Vegetation Strata	
). 		-		Tree - Woody plants 3 in. (7.6 cm) or more in diame breast height (DBH), regardless of height.	eter at
2				Sapling/shrub - Woody plants less than 3 in. DBH	and
Voody Vine Stratum (Plot size:30)	70	_ = Total Cov		greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardle size, and woody plants less than 3.28 ft tall.	ess of
				Woody vines - All woody vines greater than 3.28 ft height.	: in
·	0	= Total Cov	er	Hydrophytic Vegetation	
				Present? Yes No	

SOIL Sampling Point: SP13-1W

Durfile Decem		h - d 4h		. !!!		. 411		
Depth	ription: (Describe to to Matrix	ne aeptn nee		e indicator Features	or contirm	i the abse	ence of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	- Texture	Remarks
0-6	10 3/1	90	7.5 yr 4/6	10	C Type	PL,M	Loamy/Clayey	Remarks
6-18	10.5 yr 3/1	70	7.5 yr 4/6	30		M	Loamy/Clayey	
0-10	10.5 yr 5/1	10	7.5 y14/0			IVI	Loanly/Clayey	
		· -						
		· ·						
		· ·						
		· —— ·						
							· ——— —	
¹Type: C=Cor	ncentration, D=Depletion	n, RM=Reduc	ced Matrix, MS=Mask	ed Sand Gr	ains.		²Location	n: PL=Pore Lining, M=Matrix.
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) pipedon (A2)	A11)	Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed N X Depleted Matrix Redox Dark Surl Depleted Dark S Redox Depression	te (S9) (LR inneral (F1) (flatrix (F2) (F3) face (F6) urface (F7) ons (F8)	R R, MLR <i>I</i> (LRR K, L)	A 149B)	9B) 2 cm Muc Coast Pr. 5 cm Muc Dark Sur Polyvalue Thin Darl Iron-Man Piedmon Mesic Sp Red Pare Very Sha Other (Ex	r Problematic Hydric Soils ³ : ck (A10) (LRR K, L, MLRA 149B) airie Redox (A16) (LRR K, L, R) cky Peat or Peat (S3) (LRR K, L, R) face (S7) (LRR K, L) e Below Surface (S8) (LRR K, L) k Surface (S9) (LRR K, L) aganese Masses (F12) (LRR K, L, R) at Floodplain Soils (F19) (MLRA 149B) bodic (TA6) (MLRA 144A, 145, 149B) ent Material (F21) allow Dark Surface (TF12) xplain in Remarks)
Restrictive L	ayer (if observed):							
Depth (inc	ches):	18	<u></u>				Hydric Soil Pres	ent? Yes X No
Remarks:								
l								

Project/Site:	Heritage Wind	City/Cour	nty:	Orleans Coun	ty	Sampling Date:	06/25/2019		
Applicant/Owner:	Heritage Wind, L	LC (Apex Clean Energy)				Sampling Point:	JKJ@1U		
Investigator(s):	AS, JK	Section,	Township, Rang	e:	To	own of Barre			
Landform (hillslope, terrace, etc):	Flat		ave, convex, nor	ne):	concave	Slope	e (%):Gentle (0-5%		
Subregion (LRR or MLRA): LRR L	- Central Great Lakes Fo	rests Lat:		Long:		Datu	m: WGS 1984		
Soil Map Unit Name:		Lyons silt loam			NWI classificati	on:	`		
Are climatic / hydrologic conditions	on the site typical for this	time of year? Yes	X No_	(If no, ex	plain in Remarl	ks.)			
Are Vegetation, Soil	, or Hydrology	significantly disturbed	d? Are	e "Normal Circun	nstances" pres	ent? Yes	X No		
Are Vegetation, Soil	, or Hydrology	naturally problematic	?? (If	needed, explain	any answers ir	Remarks.)			
SUMMARY OF FINDINGS -	Attach site map sh	owing sampling p	oint location	ns, transects	, important	features, etc.			
Hydrophytic Vegetation Present?	Yes X	No	Is the Sample	ed Area					
Hydric Soil Present?	Yes	No X	within a Wetla	and?	Yes	No X			
Wetland Hydrology Present?	Yes X	No	If yes, optiona	l Wetland Site ID	· · · · · · · · · · · · · · · · · · ·				
Remarks: (Explain alternative pro	ocedures here or in a separenced in Report a	,							
HYDROLOGY	1								
Wetland Hydrology Indicators:									
Primary Indicators (minimum of o		t apply)		S	econdary Indic	ators (minimum of	two required)		
Surface Water (A1)	no roquirou, oncon un una	Water-Stained Leaves ((B9)			il Cracks (B6)	two roquirou)		
High Water Table (A2) High Water Table (A2) Aquatic Fauna (B13)			(20)	_		atterns (B10)			
Saturation (A3)	Marl Deposits (B15)			Moss Trim Lines (B16)					
Water Marks (B1)		Hydrogen Sulfide Odor	(C1)	Dry-Season Water Table (C2)					
Sediment Deposits (B2)		Oxidized Rhizospheres	. ,	· · · · · · · · · · · · · · · · ·					
Drift Deposits (B3)	_	Presence of Reduced Ir	•	_ , , , , , , , , , , , , , , , , , , ,					
Algal Mat or Crust (B4)		Recent Iron Reduction i	in Tilled Soils (C	<u> </u>					
Iron Deposits (B5)		Thin Muck Surface (C7))	Geomorphic Position (D2)					
Inundation Visible on Aerial	Imagery (B7)	Other (Explain in Rema	rks)	_	Shallow Aq	uitard (D3)			
Sparsely Vegetated Concav	e Surface (B8)				Microtopog	raphic Relief (D4)			
				_	FAC-Neutra	al Test (D5)			
Field Observations:									
Surface Water Present?	Yes No X	Depth (inches):							
Water Table Present?	Yes No X	Depth (inches):							
Saturation Present?	Yes No X	Depth (inches):		Wetland Hydrol	ogy Present?	Yes	No X		
(includes capillary fringe)				-					
Describe Recorded Data (stream	gauge, monitoring well, a	aerial photos, previous in	spections), if ava	ailable:					
Remarks:									

Absolute Dominant Species?	Number That Are Status Total Nu Species Percent That Are Prevale Total Nu Species Percent That Are Prevale Total Nu Species Percent That Are Total Nu Species Total	species 0 ecies 0 pecies 5 ecies 0 Totals: 5 revalence Index = E hytic Vegetation In	es AC: eet: x 1 = x 2 = x 3 = x 4 = x 5 = (A) andicators:	0 0 20	(A) (B) (A/B)
1	Total Nu Species Percent That Are Prevale Total Nu Species Percent That Are Prevale Total Nu Species FACUS FACUS UPL species Column Pr Hydrop 1 -	of Dominant Specie OBL, FACW, or Face Index workship tal % Cover of: ecies 0 species 0 species 0 species 5 species 0 Totals: 5 revalence Index = E	AC:	0.0 Multiply by: 0 0 0 20 0 20	(A/B)
4	That Are Prevale Tof OBL spe FACW s FAC spe FACU s UPL spe Column Pr Hydrop 1 -	e OBL, FACW, or Factor Index workshitted % Cover of: ecies 0 species 0 pecies 5 ecies 0 Totals: 5 revalence Index = E	AC:	Multiply by: 0 0 0 20 20	
7	Tot OBL spe FACW s FAC spe FACU s UPL spe Column Pr	tal % Cover of: ecies	x 1 = x 2 = x 3 = x 4 = x 5 = (A) 3/A = ndicators:	0 0 0 20 0 20	(B)
Sapling/Shrub Stratum (Plot size: 15) 1.	OBL spe FACW s FAC spe FACU sl UPL spe Column Pr	ecies 0 species 0 ecies 0 pecies 5 ecies 0 Totals: 5 revalence Index = E	x 1 = x 2 = x 3 = x 4 = x 5 = (A) andicators:	0 0 0 20 0 20	(B)
1.	FACW s FAC spe FACU s UPL spe Column Pr Hydrop	species 0 ecies 0 pecies 5 ecies 0 Totals: 5 revalence Index = E hytic Vegetation In	x 2 = x 3 = x 4 = x 5 = (A)	0 0 20 0 20	(B)
2. 3. 4. 5. 6. 7. 0 = Total Covered the stratum (Plot size: 1 Sq. M.) 1. Zea mays / Corn 10 Yes 2. Poa pratensis / Kentucky blue grass 5 Yes 3. 4. 5. 6	FAC spe FACU spe UPL spe Column Pr Hydrop	ecies 0 pecies 5 ecies 0 Totals: 5 revalence Index = E	x 3 = x 4 = x 5 = (A) B/A =	0 20 0 20	(B)
2	FAC spe FACU sp UPL spe Column Pr Hydrop 1 -	pecies 5 ecies 0 Totals: 5 revalence Index = E hytic Vegetation II	x 4 = x 5 = (A) B/A =	20 0 20	(B)
3.	UPL spe Column Pr Hydrop 1 -	ecies 0 Totals: 5 revalence Index = E	x 5 = (A) B/A =	0 20	(B)
4. 5. 6. 7. 0 = Total Covered the following stratum (Plot size: 1 Sq. M.) 1. Zea mays / Corn 10 Yes 2. Poa pratensis / Kentucky blue grass 5 Yes 3. 4. 5. 6.	Column Pr Hydrop 1 - 1 -	Totals: 5 revalence Index = E hytic Vegetation In	(A) B/A =	20	(B)
5. 0 6. 0 7. 0 Herb Stratum (Plot size: 1 Sq. M.) 1. Zea mays / Corn 10 Yes 2. Poa pratensis / Kentucky blue grass 5 Yes 3. 4. 5. 6.	Pr Hydrop 1 -	revalence Index = E	B/A =		(B)
6.	Pr Hydrop 1 -	hytic Vegetation li	ndicators:	4.0	
Herb Stratum (Plot size: 1 Sq. M.) 1. Zea mays / Corn 10 Yes 2. Poa pratensis / Kentucky blue grass 5 Yes 3.	1-	-			
Herb Stratum (Plot size: 1 Sq. M.) 1. Zea mays / Corn	1-	-			
1. Zea mays / Corn 10 Yes 2. Poa pratensis / Kentucky blue grass 5 Yes 3.		Rapid Test for Hydi	rophytic Vec	getation	
2. Poa pratensis / Kentucky blue grass 5 Yes 3. 4. 5. 6.	2 -	Dominance Test is		•	
3		Prevalence Index ≤			
4	FACU I —	Morphological Ada		ovide suppo	rtina
5		blematic Hydrophy			-
6.		,,		(,
<u> </u>	Indicate	ors of hydric soil an	d wetland h	vdrology mi	ıst
7.		ent, unless disturbe			
8		ons of Vegetation	Strata		
9					
10. 11.	Tree - W	Voody plants 3 in. (` neight (DBH), regar			eter at
12	Sapling	/shrub - Woody pla			l and
15 = Total Cove	r greater	than or equal to 3.2	28 ft (1 m) ta	ıll.	
Woody Vine Stratum (Plot size:	-:	All herbaceous (non d woody plants less			ess of
2.		vines - All woody v	ines greate	r than 3.28	ft in
3	height.	,	Ü		
4.		la dia			
0 = Total Cov					
	Vegetat Present			Na V	
	Procent	t? Yes	!	NO X	-

SOIL Sampling Point: JKJ@1U

Profile Descr	ription: (Describe to th	ne depth ned	eded to document th	e indicator	or confirm	the abse	nce of indicators.)	
Depth	Matrix		Redox	Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Re	emarks
0-14	7.5YR 3/2	100					Loamy/Clayey		
14-16	7.5YR 5/3	70	7.5YR 4/6	30	С	М	Loamy/Clayey		
							. <u></u> _		
							. <u></u> _		
							· <u></u> -		
							·		
							·		
¹Type: C=Con	ncentration, D=Depletio	n, RM=Redu	ced Matrix, MS=Mask	ked Sand Gra	ains.		² Locatio	on: PL=Pore Linir	ng, M=Matrix.
Black His Hydroger Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) pipedon (A2)	.RA 149B)	Polyvalue Below Thin Dark Surfar Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LRI lineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ons (F8)	R R, MLRA LRR K, L)	A 149B)	9B) 2 cm M Coast F 5 cm M Dark SI Polyval Thin Da Iron-Ma Piedmo Mesic S Red Pa Very Sh Other (I	Prairie Redox (A1 ucky Peat or Pea urface (S7) (LRI ue Below Surface ark Surface (S9) unganese Masse unt Floodplain So	K, L, MLRA 149B) (16) (LRR K, L, R) (17) (LRR K, L, R) (18) (LRR K, L) (18) (LRR K, L) (18) (LRR K, L) (18) (F12) (LRR K, L, R) (18) (F19) (MLRA 149B) (19) (MLRA 144B) (10) (10) (10) (10) (10) (10) (10) (10)
Restrictive L	ayer (if observed):								
Type:									
Depth (inc	ches):						Hydric Soil Pre	sent? Yes	NoX
Remarks:									

Project/Site:	Heritage Wind	City/Coun	ty: Orleans Co	ounty	Sampling Date: 0	6/25/2019
Applicant/Owner:	Heritage Wind, LI	LC (Apex Clean Energy)	St	ate: New York	Sampling Point:	JKJ@1W
Investigator(s):	JK, AS	Section, T	ownship, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc):	Ditch	Local relief (conca	ve, convex, none):	concave	Slope (%):	Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Fo	rests Lat: 43.181022	Long:	-78.202167	Datum:	WGS 1984
Soil Map Unit Name:		Lyons silt loam		NWI classification	on: R4SE	1
Are climatic / hydrologic conditions	on the site typical for this	time of year? Yes X	No (If no	explain in Remark	(s.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbed	? Are "Normal Cir	cumstances" prese	ent? Yes X	No
Are Vegetation, Soil	, or Hydrology	naturally problematic?	(If needed, expl	ain any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map sh	owing sampling po	oint locations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes X	No	Is the Sampled Area			
Hydric Soil Present?	Yes X	No	within a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Sit	e ID:	JKJ	
Remarks: (Explain alternative po	rocedures here or in a sepa erenced in Report a	. ,				
HYDROLOGY						
Wetland Hydrology Indicators						
Primary Indicators (minimum of		t apply)		Secondary Indica	ators (minimum of two r	equired)
X Surface Water (A1)	one required, erreen an and	Water-Stained Leaves (E	39)		l Cracks (B6)	<u> </u>
High Water Table (A2)		Aquatic Fauna (B13)	,		atterns (B10)	
X Saturation (A3)		Marl Deposits (B15)		Moss Trim I	` ,	
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres	,	Crayfish Bu	, ,	
Drift Deposits (B3)	_	Presence of Reduced Iro	on (C4)	Saturation \	/isible on Aerial Imager	y (C9)
Algal Mat or Crust (B4)	_	Recent Iron Reduction in	Tilled Soils (C6)	Stunted or S	Stressed Plants (D1)	, ,
Iron Deposits (B5)		Thin Muck Surface (C7)	, ,	Geomorphic	Position (D2)	
Inundation Visible on Aeria	I Imagery (B7)	Other (Explain in Remark	ks)	Shallow Aq	uitard (D3)	
Sparsely Vegetated Conca	ve Surface (B8)			Microtopogi	raphic Relief (D4)	
				FAC-Neutra	I Test (D5)	
Field Observations:						
Surface Water Present?	Yes X No	Depth (inches): 2 i	nches			
Water Table Present?	Yes X No	Depth (inches):	0			
Saturation Present?	Yes X No	Depth (inches):	0 Wetland Hyd	rology Present?	Yes X No)
(includes capillary fringe)		<u> </u>				
Describe Recorded Data (stream	n gauge, monitoring well, a	eriai photos, previous ins	pections), if available:			
Remarks:						

EGETATION - Use scientific names of plants.					Samp	ling Poir	nt: JK	J@1W
Free Stratum (Plot size: <u>30</u>) I.	Absolute %Cover	Dominant Species?	Indicator Status	Dominance Test wo Number of Dominan That Are OBL, FACV Total Number of Don	t Species V, or FAC:		2	_ (A)
2.				Species Across All S	Strata:		2	_ (B)
3				Percent of Dominant That Are OBL, FACV	•		100.0	_ (A/B)
7		_		Prevalence Index w	orksheet:			
	0	= Total Cov	er	Total % Cover			ultiply by:	
Sapling/Shrub Stratum (Plot size:15)				OBL species	35	x 1 = _	35	
·			_,	FACW species	75	x 2 = _	150	
·				FAC species	0	x 3 = _	0	
				FACU species	0	x 4 = _	0	
·				UPL species	0	x 5 = _	0	
				Column Totals:	110	(A) _	185	(B
				Prevalence Inc	dex = B/A =		1.6818	
·		= Total Cov		Hydrophytic Vegeta	ation Indica	tors:		
lerb Stratum (Plot size: 1 Sq. M.)		_ = 10tal C0V	Ci	X 1 - Rapid Test fo	or Hydrophy	tic Vege	tation	
. Mentha arvensis / American wild mint, Field mint	50	Voo	EACW/	X 2 - Dominance	Test is >50%	6		
Scirpus cyperinus / Woolgrass	25	Yes Yes	_ <u>FACW</u> OBL	3 - Prevalence I	Index ≤3.0¹			
	20	No		4 - Morphologic	al Adaptatio	ns (Prov	ide suppor	ting
. Phragmites australis / Common reed . Salix / Willow	10	No No	FACW	Problematic Hye	drophytic Ve	getation	¹ (Explain)	
	10		OBL					
. Asclepias incarnata / Swamp milkweed . Fraxinus pennsylvanica / Green ash	5	No No	OBL FACW	¹ Indicators of hydric	soil and wet	land hyd	drology mus	st .
			171011	be present, unless d	isturbed or p	oroblema	atic.	
				Definitions of Vege	tation Strat	a		
0 1				Tree - Woody plants breast height (DBH),				ter at
2.				Sapling/shrub - Wo	-	_		and
Joseph Vino Structure (Diet size) 20	120	_ = Total Cov	er	greater than or equa				
Voody Vine Stratum (Plot size:30)				Herb - All herbaceou size, and woody plar	us (non-woo nts less thar	dy) plan ı 3.28 ft t	ts, regardle tall.	ss of
				Woody vines - All w				in
3.				height.				
l	0	= Total Cov	er	Hydrophytic				
		_		Vegetation Present?	Yes X	. No	o	
Remarks: (Explain alternative procedures here or in a separa	ate report)							
ternance. (Explain alternative procedures here of in a separt	ato report.)							

SOIL Sampling Point: JKJ@1W

Profile Descr	ription: (Describe to t	he depth ne	eded to document the	e indicator o	or confirm	the abse	nce of indicators.)	1 3
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-3	7.5 YR 3/1	100					Loamy/Clayey	
3-8	7.5 YR 5/2	75	7.5YR 5/6	25	C	М	Loamy/Clayey	
							. <u> </u>	
							·	
							· ——— —	
							· 	
			·					
		· 						
		· 						
17	 ncentration, D=Depletion	- DM Ded					21	a. Di Dana Linia a M Matria
Type: C=Cor	icentration, D=Depletio	n, Rivi=Redi	uced Matrix, MS=Mask	ed Sand Gra	airis.		Location	n: PL=Pore Lining, M=Matrix.
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) pipedon (A2)	_RA 149B)	Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed M X Depleted Matrix Redox Dark Surf Depleted Dark S Redox Depression	ce (S9) (LRI ineral (F1) (I flatrix (F2) (F3) face (F6) urface (F7) ons (F8)	R R, MLRA LRR K, L)	. 149B)	9B) 2 cm Mu Coast Pi 5 cm Mu Dark Sui Polyvalu Thin Dar Iron-Mar Piedmor Mesic Si Red Par Very Sha Other (E	or Problematic Hydric Soils ³ : ack (A10) (LRR K, L, MLRA 149B) rairie Redox (A16) (LRR K, L, R) acky Peat or Peat (S3) (LRR K, L, R) rface (S7) (LRR K, L) ale Below Surface (S8) (LRR K, L) ack Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R) at Floodplain Soils (F19) (MLRA 149B) apodic (TA6) (MLRA 144A, 145, 149B) allow Dark Surface (TF12) axplain in Remarks)
Type:	ayer (if observed):							
Depth (inc	ches):	8	<u></u>				Hydric Soil Pres	sent? Yes X No
Remarks:							•	

Project/Site:	Heritage Wind	City/Cou	inty: Orleans C	ounty	Sampling Date:	06/27/2019
Applicant/Owner:	Heritage Wind	, LLC (Apex Clean Energy)) <u> </u>	tate: New York	Sampling Point:	JKN@1U
Investigator(s):	AS, JK	Section,	Township, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc):	Flat	Local relief (conc	ave, convex, none):	concave	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes	Forests Lat: 43.178357	Long:	-78.208933	Datum	: WGS 1984
Soil Map Unit Name: Lyons soils				NWI classification	on:	•
Are climatic / hydrologic condition	s on the site typical for th	nis time of year? Yes	X No (If no	, explain in Remark	(s.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbe	d? Are "Normal Ci	rcumstances" prese	ent? Yes X	(No
Are Vegetation, Soil _				lain any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map	showing sampling p	oint locations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Area			
Hydric Soil Present?	Yes	No X	within a Wetland?	Yes	No X	_
Wetland Hydrology Present?	Yes	NoX	If yes, optional Wetland Si	te ID:		
Remarks: (Explain alternative p	rocedures here or in a se	eparate report.)				
Refe	renced in Report	as: 1T				
HYDROLOGY						
Wetland Hydrology Indicators	s:					
Primary Indicators (minimum of	one required; check all t	hat apply)		Secondary Indica	ators (minimum of ty	wo required)
Surface Water (A1)	•	Water-Stained Leaves ((B9)	Surface Soi	l Cracks (B6)	
High Water Table (A2)	_	Aquatic Fauna (B13)	,	Drainage Pa	atterns (B10)	
Saturation (A3)	_	Marl Deposits (B15)		Moss Trim I	_ines (B16)	
Water Marks (B1)	_	Hydrogen Sulfide Odor	(C1)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	_	Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)	_	Presence of Reduced I	ron (C4)	Saturation \	/isible on Aerial Ima	igery (C9)
Algal Mat or Crust (B4)	_	Recent Iron Reduction	in Tilled Soils (C6)	_	Stressed Plants (D1	
Iron Deposits (B5)	_	Thin Muck Surface (C7))	Geomorphic	Position (D2)	
Inundation Visible on Aeria	I Imagery (B7)	Other (Explain in Rema	arks)	Shallow Aq	uitard (D3)	
Sparsely Vegetated Conca	ve Surface (B8)	_ ` ` `		Microtopogi	aphic Relief (D4)	
_ ` ` ` `				FAC-Neutra		
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X					
Saturation Present?	Yes No X		Wotland Hy	drology Present?	Yes	No X
(includes capillary fringe)	103 100	Deput (menes).		arology i resent:	103	<u> </u>
(includes capillary ininge)						
Describe Recorded Data (streat	m gauge, monitoring wel	l, aerial photos, previous in	spections), if available:			
,						
Remarks:						

EGETATION - Use scientific names of plants.				<u> </u>	g Point:	JKN@1U
				Dominance Test worksheet:		
				Number of Dominant Species		
	Absolute	Dominant	Indicator	That Are OBL, FACW, or FAC:	2	(A)
Free Stratum (Plot size:)	%Cover	Species?	Status			
I. <i>Malus</i> / Apple	40	Yes		Total Number of Dominant		
2. Fraxinus pennsylvanica / Green ash	30	Yes	FACW	Species Across All Strata:	6	(B)
3. Tilia americana / American basswood	30	Yes	FACU			
Prunus serotina / Black cherry	20	No	FACU	Percent of Dominant Species		
5.				That Are OBL, FACW, or FAC:	33.3	(A/B
5.		_				
				Prevalence Index worksheet:		
	120	= Total Cov	er	Total % Cover of:	Multiply by	/ :
Sapling/Shrub Stratum (Plot size: 15)		_		OBL species 0 x	1 = 0	
				FACW species 30 x	2 = 60)
				· —	3 = 22	5
2.			 	· —	4 = 36	
3.				· ———	5 = 0	
ł				· —	A) 64	
j				Prevalence Index = B/A =	3.3077	<u> </u>
S				Prevalence index - b/A -	3.3077	
,				Hydrophytic Vegetation Indicator	rs:	
	0	_ = Total Cov	er	1 - Rapid Test for Hydrophytic		
Herb Stratum (Plot size: 1 Sq. M.)				2 - Dominance Test is >50%	vogotation	
I. Arisaema / Jack in the pulpit	15	Yes		3 - Prevalence Index ≤3.0¹		
2				4 - Morphological Adaptations	(Dravida aun	norting
3				1 		
l				Problematic Hydrophytic Vege	etation, (Exbis	iin)
5.				4		
S				¹Indicators of hydric soil and wetlan		nust
7.				be present, unless disturbed or pro	blematic.	
3.				Definitions of Vegetation Strata		
).				Deminitions of Vegetation Strata		
0.				Tree Weady plants 2 in (7.6 am)	or more in die	motor of
·				Tree - Woody plants 3 in. (7.6 cm) breast height (DBH), regardless of		imeter at
			<u> </u>		-	
	15	= Total Cov	er	Sapling/shrub - Woody plants less greater than or equal to 3.28 ft (1 m		3H and
Noody Vine Stratum (Plot size: 30)		_ = 10tai 00v	CI .	,	•	
	75	V	FAC	Herb - All herbaceous (non-woody)		dless of
. Toxicodendron radicans / Eastern poison ivy	75	Yes	FAC	size, and woody plants less than 3.	.28 ft tall.	
2. Parthenocissus quinquefolia / Virginia creeper	40	Yes	FACU	Woody vines - All woody vines gre	eater than 3.2	8 ft in
3.				height.		
l						
	115	_ = Total Cov	er	Hydrophytic		
				Vegetation		
				Present? Yes	NoX	_
Described (Fourthing the month of the control of th	-4 ()			L		
Remarks: (Explain alternative procedures here or in a separa	ate report.)					

SOIL Sampling Point: JKN@1U Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features (inches) Color (moist) % Loc² Color (moist) Type¹ Texture Remarks 0-16 10YR 3/2 100 Loamy/Clayey ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix. **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils3: ___ Histosol (A1) Polyvalue Below Surface (S8) (LRR R,MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Dark Surface (S7) (LRR K, L) Stratified Layers (A5) Depleted Matrix (F3) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Manganese Masses (F12) (LRR K, L, R) ___ Redox Depressions (F8) Sandy Mucky Mineral (S1) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)

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

Restrictive Layer (if observed):	
Type:	_
Depth (inches):	

Hydric Soil Present?

s _____ No __X

US Army Corps of Engineers

Remarks:

Project/Site:	Heritage Wind	City/Cour	nty: Orleans C	ounty	Sampling Date:	06/27/2019
Applicant/Owner:	Heritage Wind, I	LC (Apex Clean Energy)	S	tate: New York	Sampling Point:	JKN@1W
Investigator(s):		Section,	Township, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc):		Local relief (conca	ave, convex, none):	concave	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes F	orests Lat: 43.1791	Long:	-78.2093	Datum	: WGS 1984
Soil Map Unit Name: Lyons soils				NWI classificatio	n: PFO	
Are climatic / hydrologic conditions	on the site typical for this	time of year? Yes;	X No (If n	o, explain in Remai	rks.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbed	? Are "Norr	nal Circumstances"	present? Yes X	No
Are Vegetation, Soil	, or Hydrology	naturally problematic	? (If needed, ex	kplain any answers	in Remarks.)	
SUMMARY OF FINDINGS	- Attach site map sl	howing sampling p	oint locations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes X	No	Is the Sampled Area			
Hydric Soil Present?	Yes X	No	within a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Si	te ID:	JKN	
Remarks: (Explain alternative pr	rocedures here or in a seperenced in Report	. ,				
HYDROLOGY	_					
Wetland Hydrology Indicators						
Primary Indicators (minimum of		at apply)		Secondary Indic	ators (minimum of t	vo required)
X Surface Water (A1)	one required, errock air are	Water-Stained Leaves (R9)		l Cracks (B6)	iro roquirou)
X High Water Table (A2)		Aquatic Fauna (B13)	20)		atterns (B10)	
X Saturation (A3)		Marl Deposits (B15)		Moss Trim I	` ,	
Water Marks (B1)		Hydrogen Sulfide Odor	(C1)		Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres	` '	Crayfish Bu	, ,	
Drift Deposits (B3)		Presence of Reduced Ir	• ,		/isible on Aerial Ima	gery (C9)
Algal Mat or Crust (B4)		Recent Iron Reduction i	` '		Stressed Plants (D1	. ,
Iron Deposits (B5)		Thin Muck Surface (C7)	` '		c Position (D2)	,
Inundation Visible on Aeria	I Imagery (B7)	Other (Explain in Rema		Shallow Aq	` '	
Sparsely Vegetated Conca	<u> </u>	. • (=.4	,		raphic Relief (D4)	
				FAC-Neutra	. , ,	
Field Observations:						
Surface Water Present?	Yes X No	Depth (inches):	2-12			
Water Table Present?	Yes X No	Depth (inches):	0			
Saturation Present?	Yes X No	Depth (inches):		drology Present?	Yes X	No
(includes capillary fringe)	<u></u>				<u>//</u>	
(erados sapinai) illigo)						
Describe Recorded Data (stream	n gauge, monitoring well,	aerial photos, previous in	spections), if available:			
Remarks:						

Absolute Dominant Indicator Species Status Number of Dominant Species Status That Are OBL, FACW, or FAC; 6 1 1 1 1 1 1 1 1 1	GETATION - Use scientific names of plants.				Sa	mpling Po	int: JKI	N@1W
Acer saccharinum / Silver maple					Number of Dominant Species		6	_ (A)
Prevalence Index worksheet: Total Kover	`` <u></u>	-						
Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7	·						_	
Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7	· · · · · ·	40	Yes	FACW	Species Across All Strata:		7	_ (B)
That Are OBL, FACW, or FAC: 85.7					Percent of Dominant Species			
Total Cover	j				That Are OBL, FACW, or FAC	ercent of Dominant Species nat Are OBL, FACW, or FAC: Total % Cover of: BL species 10 ACW species 130 AC species 25 ACU species 20 AC species 20 AC species 20 AC species 30 ACU species 4 = 80 PL species 90 PL species 185 ACU species 90 ACU spe	(A/E	
Sapling/Shrub Stratum (Plot size: 15 15 16 16 16 16 16 16	·		_		Prevalence Index workshee	t:		
Faximus pennsylvanica Oreen ash 20 Yes FACW FA		100	= Total Cov	ver	Total % Cover of:	N	/lultiply by:	
Faxinus pennsylvanica Green ash 20 Yes FACW FA	Sapling/Shrub Stratum (Plot size: 15)	_	_		OBL species 10	x 1 =	10	
FAC species 25 x 3 = 75	· · · · · · · · · · · · · · · · · · ·	20	Yes	FACW	FACW species 130	x 2 =	260	
FACU species 20 x 4 = 80 UPL species 0 x 5 = 0 Column Totals: 185 (A) 425 Prevalence Index = B/A = 2.2973 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index = 3.0' 4 - Morphological Adaptations (Provide supporting Problematic Hydrophytic Vegetation (Explain) 10 Yes OBL 10 Yes OBL 11 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide supporting Problematic Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation (Forvide Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Vegetation (Forvide Hydrophytic Vegetation) 1 - Rapid Test for Hydrophytic Veget					FAC species 25	x 3 =	75	
UPL species 0 x 5 = 0 Column Totals: 185 (A) 425 Prevalence Index = B/A = 2.2973 Hydrophytic Vegetation Indicators:	, ,			171011	FACU species 20	x 4 =	80	
Solution Stratum Column Totals: 185 (A) 425	-		_	 	UPL species 0	x 5 =	0	
Prevalence Index = B/A = 2.2973					Column Totals: 185	(A)	425	(I
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation								`
and a stratum (Plot size: 1 Sq. M. S					Hydrophytic Vegetation Ind	icators:		
Tree - Woody plants 3 in. (7.6 cm) or more in diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Parthenocissus quinquefolia / Virginia creeper Virginia cre		30	_ = Total Cov	er er	' ' '		etation	
Tree - Woody plants 3 in. (7.6 cm) or more in diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Parthenocissus quinquefolia / Virginia creeper 45 = Total Cover 10 Yes OBL 3 - Prevalence Index ≤3.0¹ 4 - Morphological Adaptations (Provide supporting the problematic Hydrophytic Vegetation '(Explain) (Problematic Hydrophytic Vegetation Strata) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata Tree - Woody plants 3 in. (7.6 cm) or more in diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. 45 = Total Cover Hydrophytic Vegetation	erb Stratum (Plot size: 1 Sq. M.)						otation	
4 - Morphological Adaptations (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain) 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 diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Parthenocissus quinquefolia / Virginia creeper 20 Yes FACU Woody vines - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Wegetation Tree - Woody plants 3 in. (7.6 cm) or more in diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft in height. Hydrophytic Vegetation	. Carex lupulina / Hop sedge	10	Yes	OBL				
Problematic Hydrophytic Vegetation¹ (Explain) 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 diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation					 -		wide suppoi	rtina
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata					<u> </u>	•		-
1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata Tree - Woody plants 3 in. (7.6 cm) or more in diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall. Parthenocissus quinquefolia / Virginia creeper 20 Yes FACU Woody vines - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation					Froblematic Hydrophytic	vegetatio	ii (Expiaiii)	
be present, unless disturbed or problematic. Definitions of Vegetation Strata Tree - Woody plants 3 in. (7.6 cm) or more in diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall. Parthenocissus quinquefolia / Virginia creeper 20 Yes FACU Woody vines - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation					1 Indicators of hydric soil and	watland by	drology my	o.t
Definitions of Vegetation Strata Definitions of Vegetation Strata Tree - Woody plants 3 in. (7.6 cm) or more in diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall. Parthenocissus quinquefolia / Virginia creeper 20 Yes FACU Woody vines - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation					•	-		SI
Tree - Woody plants 3 in. (7.6 cm) or more in diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall. Parthenocissus quinquefolia / Virginia creeper 20 Yes FACU Woody vines - All woody vines greater than 3.28 ft i height. Hydrophytic Vegetation					be present, unless disturbed	or problem	natic.	
Tree - Woody plants 3 in. (7.6 cm) or more in diamet breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall. Parthenocissus quinquefolia / Virginia creeper 20 Yes FACU Woody vines - All woody vines greater than 3.28 ft i height. Hydrophytic Vegetation					Definitions of Vegetation St	rata		
10 = Total Cover Greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall.	0.							eter at
Voody Vine Stratum (Plot size: 30)	2		= Total Cov	 /er				and
Parthenocissus quinquefolia / Virginia creeper 20 Yes FACU Woody vines - All woody vines greater than 3.28 ft i height. 45 = Total Cover Hydrophytic Vegetation						. ,		ess of
woody viries - All woody viries greater than 3.28 it is height.	. Toxicodendron radicans / Eastern poison ivy	25	Yes	FAC	size, and woody plants less the	nan 3.28 ft	tall.	
45 = Total Cover Hydrophytic Vegetation		20	Yes	FACU		es greater	than 3.28 f	: in
Vegetation		45	= Total Cov	er	Hydrophytic			
165 <u>X</u> 10				OI.	Vegetation	X N	Jo.	
emarks: (Explain alternative procedures here or in a separate report.)								

SOIL Sampling Point: JKN@1W

	ription: (Describe to the	ie deptii iie			COMMIN	tile abse	ince of infalcators.	
Depth	Matrix			Features			_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u></u> %	Type ¹	Loc²	Texture	Remarks
0-8	10YR 3/1	100					Loamy/Clayey	
8-18	10YR 6/1	80	7.5YR 5/8	20	<u> </u>	М	Loamy/Clayey	
Type: C=Con	ncentration, D=Depletio	n, RM=Redi		ed Sand Grai	ins.		² Location:	: PL=Pore Lining, M=Matrix.
Black His Hydroge Stratified Depleted	(A1) bipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) ti Below Dark Surface (A	A11)	Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed N X Depleted Matrix Redox Dark Sur	ce (S9) (LRR ineral (F1) (L fatrix (F2) (F3) face (F6)	R, MLRA		2 cm Muc Coast Pra 5 cm Muc Dark Surf Polyvalue Thin Dark	Problematic Hydric Soils ³ : k (A10) (LRR K, L, MLRA 149B) airie Redox (A16) (LRR K, L, R) kky Peat or Peat (S3) (LRR K, L, R) ace (S7) (LRR K, L) b Below Surface (S8) (LRR K, L) k Surface (S9) (LRR K, L)
Sandy M Sandy G Sandy R Stripped	ark Surface (A12) flucky Mineral (S1) fleyed Matrix (S4) fledox (S5) Matrix (S6) fface (S7) (LRR R, ML	.RA 149B)	Depleted Dark S	` ,			Piedmont Mesic Spo Red Pare Very Shal	ganese Masses (F12) (LRR K, L, R Floodplain Soils (F19) (MLRA 149B odic (TA6) (MLRA 144A, 145, 149B nt Material (F21) llow Dark Surface (TF12) splain in Remarks)
	hydrophytic vegetation		d hydrology must be pr	esent, unless	disturbed	or proble		,
Restrictive L Type: Depth (ind	ayer (if observed):						Hydric Soil Press	ent? Yes X No
Remarks:	Vernal pool habitat						1	

Project/Site:	Heritage Wind	City/County:	: Orleans Co	unty	Sampling Date:	06/27/2019
Applicant/Owner:	Heritage Wind, LI	LC (Apex Clean Energy)			Sampling Point:	JKP@1U
Investigator(s):	AS, JK	Section, Tov	vnship, Range:	To	own of Barre	
Landform (hillslope, terrace, etc):	Flat	Local relief (concave	e, convex, none):	none	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Fo	rests Lat: 43.1780	Long:	-78.2112	Datun	n: WGS 1984
Soil Map Unit Name:		Lyons silt loam		NWI classificati	on:	
Are climatic / hydrologic condition	s on the site typical for this	time of year? Yes X	No (If no,	explain in Remarl	ks.)	
Are Vegetation, Soil _	, or Hydrology	significantly disturbed?	Are "Normal Circ	cumstances" pres	ent? Yes>	K No
Are Vegetation, Soil	, or Hydrology	naturally problematic?	(If needed, expla	ain any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map sh	owing sampling poir	nt locations, transec	ts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes	No X Is	s the Sampled Area			
Hydric Soil Present?	Yes X	No w	vithin a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes	No X If	yes, optional Wetland Site			-
Remarks: (Explain alternative p	rocedures here or in a separenced in Report as	. ,				
HYDROLOGY						
Wetland Hydrology Indicators	3:					
Primary Indicators (minimum of		t apply)		Secondary Indic	ators (minimum of t	wo required)
Surface Water (A1)	, ,	Water-Stained Leaves (B9)		il Cracks (B6)	
High Water Table (A2)	_	Aquatic Fauna (B13)	,		atterns (B10)	
Saturation (A3)	_	Marl Deposits (B15)			Lines (B16)	
Water Marks (B1)	_	Hydrogen Sulfide Odor (C	1)	Dry-Seasor	n Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres on	Living Roots (C3)	Crayfish Bu	irrows (C8)	
Drift Deposits (B3)		Presence of Reduced Iron	(C4)	Saturation '	Visible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)		Recent Iron Reduction in T	illed Soils (C6)	Stunted or	Stressed Plants (D1	.)
Iron Deposits (B5)	_	Thin Muck Surface (C7)		Geomorphi	c Position (D2)	
Inundation Visible on Aeria	Il Imagery (B7)	Other (Explain in Remarks)	Shallow Aq	uitard (D3)	
Sparsely Vegetated Conca	ve Surface (B8)			Microtopog	raphic Relief (D4)	
				FAC-Neutra	al Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	· · · /				
Saturation Present?	Yes No X	Depth (inches):	Wetland Hyd	rology Present?	Yes	No X
(includes capillary fringe)		. , ,		0,		
, , , ,						
Describe Recorded Data (strea	m gauge, monitoring well, a	erial photos, previous inspe	ections), if available:			
Remarks:						

				Sampl	ing Poin	it: JKF	P@1U
%Cover	Dominant Species?	Indicator Status	Number of Dominant Sp That Are OBL, FACW, o Total Number of Domina	ecies r FAC: int		1	_ (A)
			Percent of Dominant Sp	ecies		25.0	_ (B) (A/B)
			Prevalence Index work	sheet:			
	= Total Cov				Мι	ultiply by:	
	_ = 10tal Cov	еі		0			
					_		
			· -		_		
					_		
	_				_		
	_		· -		_		(B)
						3.9	(b)
			Hydrophytic Vegetatio	n Indicat	ors:		
0	_ = Total Cov	er				ation	
					-		
15	Yes	UPL					
15	Yes	FACW			e (Prov	ide sunnor	tina
10	Yes	FACU		•	•		ung
10	Yes	UPL	Problematic Hydrop	niyac veç	getation	(Explain)	
							st .
			be present, unless dista	ibcu oi p	IODICITIE		
			Definitions of Vegetation	on Strata	1		
							eter at
50	= Total Cov					3 in. DBH	and
	_		Herb - All herbaceous (r	non-wood	ly) plant	s, regardle all.	ss of
	_		Woody vines - All wood height.	ly vines g	reater t	han 3.28 ft	in
0	= Total Cov	er	Hydrophytic Vegetation				
	0 15 15 10 10	Species?	%Cover Species? Status 0 = Total Cover 15 Yes UPL 15 Yes FACW 10 Yes FACU 10 Yes UPL	Absolute Dominant Indicator %Cover Species? Status Total Number of Dominant Species Across All Strat Percent o	Absolute	Absolute Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species

SOIL Sampling Point: JKP@1U

001L								Camping Forne: Ott @ 10
Profile Descr	iption: (Describe to t	he depth ne	eded to document the	e indicator	or confirm	the abse	ence of indicators.)	
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-2	10YR 3/2	100					Loamy/Clayey	
2-12	10YR 3/2	98	7.5YR 4/6	2	С	М	Loamy/Clayey	
12-18	7.5YR 5/2	85	7.5YR 5/6	15	С	М	Loamy/Clayey	
					. <u> </u>			
							<u> </u>	
	-		-				<u></u>	
	-		-				<u></u>	
	-						. <u> </u>	
							<u> </u>	
¹Type: C=Con	centration, D=Depletion	n, RM=Redu	uced Matrix, MS=Mask	ed Sand Gr	ains.		² Location	n: PL=Pore Lining, M=Matrix.
Black His Hydrogel Stratified Depleted Thick Da Sandy M Sandy G Sandy Re Stripped Dark Sur	(A1) ipedon (A2) stic (A3) n Sulfide (A4) Layers (A5) Below Dark Surface (A12) ucky Mineral (S1) leyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, MI	LRA 149B)	Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Surf Depleted Dark S Redox Depression	ce (S9) (LR ineral (F1) flatrix (F2) (F3) face (F6) urface (F7) ons (F8)	RR R, MLRA (LRR K, L)	(149B)	9B) 2 cm Muc Coast Pra 5 cm Muc Dark Sur Polyvalue Thin Dark Iron-Man Piedmon Mesic Sp Red Pare Very Sha Other (Ex	r Problematic Hydric Soils ³ : ck (A10) (LRR K, L, MLRA 149B) airie Redox (A16) (LRR K, L, R) cky Peat or Peat (S3) (LRR K, L, R) face (S7) (LRR K, L) e Below Surface (S8) (LRR K, L) k Surface (S9) (LRR K, L) ganese Masses (F12) (LRR K, L, R) t Floodplain Soils (F19) (MLRA 149B) bodic (TA6) (MLRA 144A, 145, 149B) ent Material (F21) allow Dark Surface (TF12) explain in Remarks)
	ayer (if observed):							
Type: Depth (inc	ches):						Hydric Soil Pres	ent? Yes X No
Remarks:							1	
İ								

Project/Site:	Heritage Wind	City/Cou	nty: Orleans C	ounty	Sampling Date:	06/27/2019		
Applicant/Owner:	Heritage Wi	nd, LLC (Apex Clean Energy)		tate: New York	Sampling Point:	JKP@1W		
Investigator(s):	AS, JK	Section,	Township, Range:	To	own of Barre			
Landform (hillslope, terrace, etc):			ave, convex, none):	none	Slope	(%):Gentle (0-5%		
Subregion (LRR or MLRA): LRR	L - Central Great Lake	es Forests Lat: 43.177331	Long:	-78.210774	Datum	n: WGS 1984		
Soil Map Unit Name:		Lyons silt loam	_	NWI classificat	ion: PFO			
Are climatic / hydrologic condition	s on the site typical for	this time of year? Yes	X No (If no	, explain in Remarl	ks.)			
Are Vegetation, Soil _	, or Hydrology	significantly disturbed	d? Are "Normal Ci	rcumstances" pres	ent? Yes >	(No		
Are Vegetation, Soil	, or Hydrology	naturally problemation	? (If needed, exp	lain any answers ir	Remarks.)			
SUMMARY OF FINDINGS	- Attach site ma	p showing sampling p	oint locations, transe	cts, important	features, etc.			
Hydrophytic Vegetation Presen	? Yes	X No	Is the Sampled Area					
Hydric Soil Present?	Yes	X No	within a Wetland?	Yes X	No			
Wetland Hydrology Present?	Yes	X No	If yes, optional Wetland Si	te ID:	JKP forested			
Remarks: (Explain alternative p	rocedures here or in a	. ,						
HYDROLOGY								
Wetland Hydrology Indicators	3 :							
Primary Indicators (minimum of		III that apply)		Secondary Indic	ators (minimum of t	wo required)		
Surface Water (A1)		Water-Stained Leaves ((B9)		il Cracks (B6)	. ,		
High Water Table (A2)		Aquatic Fauna (B13)	,	X Drainage Patterns (B10)				
Saturation (A3)		Marl Deposits (B15)		X Moss Trim Lines (B16)				
Water Marks (B1)		Hydrogen Sulfide Odor	(C1)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		X Oxidized Rhizospheres	on Living Roots (C3)	Living Roots (C3) Crayfish Burrows (C8)				
Drift Deposits (B3)		Presence of Reduced In	ron (C4)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)		Recent Iron Reduction i	in Tilled Soils (C6)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)		Thin Muck Surface (C7))	Geomorphic Position (D2)				
Inundation Visible on Aeria	al Imagery (B7)	Other (Explain in Rema	irks)	Shallow Aq	uitard (D3)			
Sparsely Vegetated Conca	ive Surface (B8)			Microtopog	raphic Relief (D4)			
				FAC-Neutra	al Test (D5)			
Field Observations:								
Surface Water Present?	Yes No	X Depth (inches):						
Water Table Present?	Yes No	X Depth (inches):						
Saturation Present?	Yes No	X Depth (inches):	Wetland Hy	drology Present?	Yes X	No		
(includes capillary fringe)						· <u></u>		
D 11 D 1 1 D 1 / /								
Describe Recorded Data (strea	m gauge, monitoring v	veii, aeriai photos, previous in	spections), if available:					
Remarks:								

			Sampling Point:JKP@1\
Absolute			Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:3 (A
	- - '		T. I. I. I. I.
85	Yes	FACW	Total Number of Dominant Species Across All Strata: 4 (B
			Percent of Dominant Species
			That Are OBL, FACW, or FAC: (A
			Prevalence Index worksheet:
85	= Total Cove	r	Total % Cover of: Multiply by:
	_		OBL species 35 x 1 = 35
40	Yes	FACW	FACW species 155 x 2 = 310
_			FAC species 10 x 3 = 30
			FACU species 0 x 4 = 0
		-	UPL species 0 x 5 = 0
			Column Totals: 200 (A) 375
			Prevalence Index = B/A = 1.875
			Hydrophytic Vegetation Indicators:
40	_ = lotal Cove	r	X 1 - Rapid Test for Hydrophytic Vegetation
	.,		X 2 - Dominance Test is >50%
			3 - Prevalence Index ≤3.0¹
			4 - Morphological Adaptations (Provide supporting
			Problematic Hydrophytic Vegetation¹ (Explain)
	No	FACW	
15	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
			Definitions of Vegetation Strata
			Tree - Woody plants 3 in. (7.6 cm) or more in diameter a breast height (DBH), regardless of height.
			Sapling/shrub - Woody plants less than 3 in. DBH and
145	_ = lotal Cove	Г	greater than or equal to 3.28 ft (1 m) tall.
10	Yes	FAC	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.
10	= Total Cove	r	Hydrophytic Vegetation
	85 85 40 40 80 20 15 15 15 10	%Cover Species? 85 Yes 85 = Total Cove 40 Yes 40 = Total Cove 80 Yes 20 No 15 Yes 10 Yes	%Cover Species? Status 85 Yes FACW 85 = Total Cover 40 Yes FACW 40 = Total Cover 80 Yes 20 No OBL 15 No FACW 15 No FACW 15 No FACW

SOIL Sampling Point: JKP@1W

Profile Descr	ription: (Describe to th	ne depth nee	ded to document th	e indicator	or confirn	1 the abse	nce of indicators	s.)
Depth	Matrix	•	Redox	Features				•
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-10	10YR 3/2	95	7.5YR 4/6	5	С	PL/M	Loamy/Clayey	
10-18	5YR 5/2	70	7.5YR 5/8	30	С	М	Loamy/Clayey	
						-		
						-	·	
						-	·	
	-			· ——			·	 -
¹Type: C=Cor	ncentration, D=Depletion	n RM=Reduc	red Matrix MS=Mask	ed Sand Gra		-	²l ocat	ion: PL=Pore Lining, M=Matrix.
1900.0 001	Depletion	II, I (WI I (COUC						
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) pipedon (A2)	RA 149B)	Polyvalue Below Thin Dark Surfar Loamy Mucky M Loamy Gleyed N X Depleted Matrix X Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LRi lineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ons (F8)	R R, MLR.	A 149B)	9B)	for Problematic Hydric Soils ³ : Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) Park Surface (S8) (LRR K, L) Park Surface (S9) (MLRA 149B) Parent Material (F21) Park Surface (TF12) Park Surface (TF12) Park Surface (TF12)
Restrictive L	ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soil Pr	resent? Yes X No
Remarks:								

Project/Site:	Heritage Wind	City/Cou	inty: Orleans C	County	Sampling Date:	06/27/2019
Applicant/Owner:	Heritage Wir	id, LLC (Apex Clean Energy)	-	State: New York	· · · · -	JKP@2W
Investigator(s):	AS, JK		Township, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc):	Flat	Local relief (conc	ave, convex, none):	none	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lake	s Forests Lat: 43.17757	Long:	-78.21102	Datum	: WGS 1984
Soil Map Unit Name:		Lyons silt loam		NWI classification	n: PEM	•
Are climatic / hydrologic condition	s on the site typical for	this time of year? Yes	X No (If no	o, explain in Remark	s.)	
Are Vegetation, Soil _	, or Hydrology	significantly disturbe	d? Are "Normal C	ircumstances" prese	ent? Yes X	(No
		naturally problemation	? (If needed, exp	olain any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map	showing sampling p	oint locations, transe	ects, important	features, etc.	
Hydrophytic Vegetation Presen	t? Yes	X No	Is the Sampled Area			
Hydric Soil Present?	Yes	X No	within a Wetland?	Yes X	No	_
Wetland Hydrology Present?	Yes	K No	If yes, optional Wetland S	ite ID:	JKP emergent	
Remarks: (Explain alternative p	rocedures here or in a	separate report.)				
Refe	renced in Repor	t as: 1T				
HYDROLOGY						
Wetland Hydrology Indicators	s:					
Primary Indicators (minimum of		I that apply)		Secondary Indica	ators (minimum of to	wo required)
Surface Water (A1)	'	Water-Stained Leaves ((B9)		l Cracks (B6)	
High Water Table (A2)		Aquatic Fauna (B13)	(-)		atterns (B10)	
Saturation (A3)		Marl Deposits (B15)		Moss Trim L	` ,	
Water Marks (B1)		Hydrogen Sulfide Odor	(C1)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)		X Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)		Presence of Reduced I	ron (C4)	Saturation \	/isible on Aerial Ima	igery (C9)
Algal Mat or Crust (B4)		Recent Iron Reduction	in Tilled Soils (C6)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)		Thin Muck Surface (C7))	Geomorphic	Position (D2)	
Inundation Visible on Aeria	al Imagery (B7)	Other (Explain in Rema	arks)	Shallow Aqu		
Sparsely Vegetated Conca	ave Surface (B8)			Microtopogr	aphic Relief (D4)	
				FAC-Neutra	l Test (D5)	
Field Observations:						
Surface Water Present?	Yes No	X Depth (inches):				
Water Table Present?	Yes No					
Saturation Present?		X Depth (inches):	Wetland Hv	drology Present?	Yes X	No
(includes capillary fringe)		' ' \				
, , , , ,						
Describe Recorded Data (strea	m gauge, monitoring w	ell, aerial photos, previous in	spections), if available:			
Remarks:						
. tomanio.						

GETATION - Use scientific names of plants.				Sampling Point:JKP@2W
ee Stratum (Plot size:)	Absolute %Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)
				Total Number of Dominant Species Across All Strata: 6 (B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/E
				Prevalence Index worksheet:
	0	= Total Cov	er	Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size: 15)				OBL species 35 x 1 = 35
Fraxinus pennsylvanica / Green ash	15	Yes	FACW	FACW species 60 x 2 = 120
				FAC species 0 x 3 = 0
				FACU species 0 x 4 = 0
				UPL species 0 x 5 = 0
			 	Column Totals: 95 (A) 155 (E
				Prevalence Index = B/A = 1.6316
				Hydrophytic Vegetation Indicators:
	15	_ = Total Cov	er	1 - Rapid Test for Hydrophytic Vegetation
erb Stratum (Plot size: 1 Sq. M.)				X 2 - Dominance Test is >50%
Scirpus cyperinus / Woolgrass	20	Yes	OBL	3 - Prevalence Index ≤3.0¹
Phalaris arundinacea / Reed canarygrass, Reed canary gras	15	Yes	FACW	4 - Morphological Adaptations (Provide supporting
Carex normalis / Greater straw sedge	15	Yes	FACW	Problematic Hydrophytic Vegetation¹ (Explain)
Carex alopecoidea / Fox-tail sedge	15	Yes	FACW	Troblematio Trydrophytio Vegetation (Explain)
Lycopus americanus / Bugleweed	15	Yes	OBL	¹Indicators 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.
2				Sapling/shrub - Woody plants less than 3 in. DBH and
_	80	_ = Total Cov	er	greater than or equal to 3.28 ft (1 m) tall.
oody Vine Stratum (Plot size:30)				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.
	0	= Total Cov		Hydrophytic
·		_ = 10(a) 007	Ci	Vegetation Present? Yes X No

SOIL Sampling Point: JKP@2W

Profile Descr	iption: (Describe to t	he denth ne	eded to document th	o indicator	or confirm	the ahee	nce of indicators)	
Depth	Matrix	ne deptii ne		Features	or commi	tile abse	nice of malcators.	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-2	10YR 3/1	100	()		.,,,,,		Loamy/Clayey	- Tomario
2-10	10YR 3/2	95	7.5YR 5/6	5		PL	Loamy/Clayey	
12-18	7.5YR 4/2	80	5YR 4/6	20		М	Loamy/Clayey	
	-			-				·
							·	
¹Type: C=Con	centration, D=Depletio	n, RM=Redu	ced Matrix, MS=Mask	ed Sand Gr	ains.		²Location	n: PL=Pore Lining, M=Matrix.
Black His Hydroger Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) ipedon (A2)	.RA 149B)	Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed M X Depleted Matrix X Redox Dark Surl Depleted Dark S Redox Depression	ce (S9) (LR ineral (F1) Matrix (F2) (F3) face (F6) curface (F7) ons (F8)	R R, MLRA (LRR K, L)	A 149B)	9B) 2 cm Mu Coast Pr 5 cm Mu Dark Sur Polyvalu Thin Dar Iron-Mar Piedmor Mesic Sp Red Pare Very Sha Other (E	or Problematic Hydric Soils ³ : lick (A10) (LRR K, L, MLRA 149B) rairie Redox (A16) (LRR K, L, R) licky Peat or Peat (S3) (LRR K, L, R) rface (S7) (LRR K, L) lie Below Surface (S8) (LRR K, L) rk Surface (S9) (LRR K, L) rganese Masses (F12) (LRR K, L, R) rt Floodplain Soils (F19) (MLRA 149B) podic (TA6) (MLRA 144A, 145, 149B) ent Material (F21) allow Dark Surface (TF12) explain in Remarks)
Type:	ayer (if observed):							
Depth (inc	ches):						Hydric Soil Pres	sent? Yes X No
Remarks:								

Project/Site: Heritage Wind	City/County: Orleans County Sampling Date: 07/10/2019				
Applicant/Owner: Heritage Wind, LLC (Apex Clean Energy)	State: NY Sampling Point: SPA-1U				
Investigator(s): AS, SP	Section, Township, Range: Town of Barre				
Landform (hillside, terrace, etc.): FLAT	Local relief (concave, convex, none): NONE Slope %: 0-5				
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat:	43.175467 Long: 78.178574 Datum: WGS84				
Soil Map Unit Name: Sun silt loam	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 distur					
Are Vegetation, Soil, or Hydrology naturally problems					
					
SUMMARY OF FINDINGS – Attach site map showing sam	ipling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area				
Hydric Soil Present? Yes No X	within a Wetland? Yes No _X				
Wetland Hydrology Present? Yes No X	If yes, optional Wetland Site ID:				
Remarks: (Explain alternative procedures here or in a separate report.)					
Defense and in Deposit on 2C					
Referenced in Report as: 2G					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)				
Surface Water (A1) Water-Stained Leaves (
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)				
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)				
Water Marks (B1) Hydrogen Sulfide Odor	r (C1) Crayfish Burrows (C8)				
Sediment Deposits (B2) Oxidized Rhizospheres	on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3) Presence of Reduced Ir	ron (C4) Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4) Recent Iron Reduction is	n Tilled Soils (C6) Geomorphic Position (D2)				
Iron Deposits (B5) Thin Muck Surface (C7)	? Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remai	rks) Microtopographic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes No X Depth (inches)	r				
Water Table Present? Yes No X Depth (inches)	ı:				
Saturation Present? Yes No X Depth (inches)	: Wetland Hydrology Present? Yes No _X				
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:				
Demonitor					
Remarks:					

VEGETATION -	Use scientific nan	nes of nlants

EGETATION – Use scientific names of pla				Sampling Point:
<u>Γree Stratum</u> (Plot size: <u>30-foot radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
. Acer saccharum	30	Yes	FACU	Number of Dominant Species
. Ulmus americana	20	Yes	FACW	That Are OBL, FACW, or FAC: 2 (A)
Acer rubrum	20	Yes	FAC	Total Number of Dominant
				Species Across All Strata: 7 (B)
				Brown of Brown and Oracin
				Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6% (A/E
				Prevalence Index worksheet:
	70	=Total Cover		Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size: 15-foot radius)				OBL species 0 x 1 = 0
. Fraxinus americana	5	Yes	FACU	FACW species 20 x 2 = 40
Traxinae americana		100	17100	FAC species 25 x 3 = 75
·		·		FACU species75 x 4 =300 UPL species
				'
		·		Column Totals: 120 (A) 415 (B
·				Prevalence Index = B/A = 3.46
·				Hydrophytic Vegetation Indicators:
	5	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
erb Stratum (Plot size: _5-foot radius_)				2 - Dominance Test is >50%
Alliaria petiolata	15	Yes	FACU	3 - Prevalence Index is ≤3.0 ¹
Geranium robertianum	15	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting
. Parthenocissus quinquefolia	10	Yes	FACU	data in Remarks or on a separate sheet)
. Geum canadense	5	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
i.				¹ Indicators of hydric soil and wetland hydrology must
i				be present, unless disturbed or problematic.
		· .		Definitions of Vegetation Strata:
·		· <u></u>		Tree – Woody plants 3 in. (7.6 cm) or more in
		· <u></u>		diameter at breast height (DBH), regardless of height
0.				Continued by Mandy plants less than 2 in DDII
1.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
2.				
	45	=Total Cover		Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
Voody Vine Stratum (Plot size: 30-foot radius)	40	' Total Gover		
				Woody vines – All woody vines greater than 3.28 ft i
·		· ——		height.
·				Hydrophytic
3				Vegetation
·				Present?
		=Total Cover		

SOIL Sampling Point _____

Depth (inches) Matrix (inches) Redox Features 0-8 10YR 3/2 100	Remarks
	Remarks
0-8 10YR 3/2 100	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lini	ing M-Matrix
Hydric Soil Indicators: Indicators for Problem	
	•
	.RR K, L, MLRA 149B)
	(A16) (LRR K, L, R)
	r Peat (S3) (LRR K, L, R)
	ırface (S8) (LRR K, L)
Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S	
Depleted Below Dark Surface (A11) Loamy Gleyed Matrix (F2) Iron-Manganese Ma	asses (F12) (LRR K, L, R)
Thick Dark Surface (A12) Depleted Matrix (F3) Piedmont Floodplain	n Soils (F19) (MLRA 149B)
Sandy Mucky Mineral (S1) Redox Dark Surface (F6) Mesic Spodic (TA6)	(MLRA 144A, 145, 149B)
Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Red Parent Material	l (F21)
Sandy Redox (S5) Redox Depressions (F8) Very Shallow Dark S	Surface (F22)
Stripped Matrix (S6) Marl (F10) (LRR K, L) Other (Explain in Re	emarks)
Dark Surface (S7)	
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
Restrictive Layer (if observed):	
Type: ROOTS	
,	Van Na V
Depth (inches): 8 Hydric Soil Present?	Yes No _X
Remarks:	
This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Ind	dicators of Hydric Soils,
Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)	

Project/Site:	Heritage Wind	City/County	y: Orleans Co	ounty	Sampling Date:	07/10/2019
Applicant/Owner:	Heritage Wind, LLC (Ap			ate: New York	· · ·	SPA@WET1
Investigator(s):	AS, SP	Section, To	wnship, Range:	To	wn of Barre	
Landform (hillslope, terrace, etc):	Ditch & Channel (active)			none	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR L	- Central Great Lakes Forests	Lat: 43.1	75467 Long:	-78.178574		n: WGS 1984
Soil Map Unit Name:	Su - Su			NWI classification		PFO
Are climatic / hydrologic conditions	on the site typical for this time of	year? Yes X	No (If no,	_ explain in Remark	s.)	
Are Vegetation , Soil	, or Hydrologysig	nificantly disturbed?	Are "Normal Cir	cumstances" prese	nt? Yes	X No
Are Vegetation , Soil				ain any answers in	Remarks.)	
SUMMARY OF FINDINGS -			int locations, transed	cts, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X No		Is the Sampled Area			
Hydric Soil Present?	Yes X No		within a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X No		If yes, optional Wetland Site	e ID:	SPA	<u> </u>
Remarks: (Explain alternative pro SPA@WET1 Refere	ocedures here or in a separate re	. ,				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of c		1		Secondary Indica	ators (minimum of t	two required)
Surface Water (A1)	· · · · · · · · · · · · · · · · · · ·	·-Stained Leaves (B	0)		Cracks (B6)	wo required)
High Water Table (A2)		ic Fauna (B13)	5)		atterns (B10)	
X Saturation (A3)		Deposits (B15)		Moss Trim L	` ,	
Water Marks (B1)		gen Sulfide Odor (C	:1)		Water Table (C2)	
Sediment Deposits (B2)	 '	zed Rhizospheres or	,	Crayfish Bu	, ,	
Drift Deposits (B3)		nce of Reduced Iron	. , ,		isible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)		nt Iron Reduction in	` '		Stressed Plants (D	• , ,
Iron Deposits (B5)		Muck Surface (C7)	(• •)	X Geomorphic	•	,
Inundation Visible on Aerial		(Explain in Remarks	s)	Shallow Aqu	, ,	
Sparsely Vegetated Concav		\ 1	,		aphic Relief (D4)	
_ ' , "	(- /			FAC-Neutra		
					. ,	
Field Observations:	Van Na V Dan	41- /:1\·				
Surface Water Present?		th (inches):				
Water Table Present?		th (inches):	0 Wetland Hyd		V V	NI-
Saturation Present?	Yes X No Dep	th (inches):	wetiand Hyd	rology Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Data (stream	gauge, monitoring well, aerial p	hotos, previous insp	ections), if available:			
Remarks:						

VEGETATION - Use scientific names of plants. Sampling Point: SPA@WET1 **Dominance Test worksheet: Number of Dominant Species** Absolute Dominant Indicator That Are OBL, FACW, or FAC: 6 ____ (A) Tree Stratum (Plot size: %Cover Species? Status 1. Carya cordiformis / Bitter-nut hickory 10 FAC **Total Number of Dominant** 2. Ulmus americana / American elm 10 Yes **FACW** 7 ____ (B) Species Across All Strata: 3. Acer rubrum / Red maple Yes FAC Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 30 = Total Cover OBL species 5 x 1 = Sapling/Shrub Stratum (Plot size: FACW species 60 x 2 = 1. Lonicera morrowii / Morrow's honeysuckle 20 x 3 = FAC species 60 FACU species 20 x 4 = UPL species 0 x 5 = Column Totals: 105 (A) Prevalence Index = B/A = 2.5238 Hydrophytic Vegetation Indicators: 10 = Total Cover 1 - Rapid Test for Hydrophytic Vegetation Herb Stratum (Plot size: 1 Sq. M.) X 2 - Dominance Test is >50% 1. Mentha arvensis / American wild mint, Field mint 20 **FACW** Yes 3 - Prevalence Index ≤3.01 2. Phalaris arundinacea / Reed canarygrass, Reed canary gras 15 Yes FACW 4 - Morphological Adaptations (Provide supporting 3. Impatiens capensis / Spotted jewelweed 15 FACW ___ Problematic Hydrophytic Vegetation¹ (Explain) 4. Tussilago farfara / Colt's-foot 10 No FACU 5. Alisma triviale / Northern water plantain OBL ¹Indicators of hydric soil and wetland hydrology must 6. be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 9. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 65 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30) 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. 0 = Total Cover Hydrophytic Vegetation

Present?

Remarks: (Explain alternative procedures here or in a separate report.)

Yes X No ____

SOIL Sampling Point: SPA@WET1

Drofile Dece	ription: (Describe to t	ha danth naa	dad to document th	o indicator	or confirm	the chas	noo of indicators \	Camping Form: OF ALEWETT
Depth	Matrix	ne depin nee		Features	or commi	the abse	ince of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	- Texture	Remarks
0-8	10YR 4/2	95	7.5YR 5/6	5	C	M	Loamy/Clayey	remano
8-16	10YR 5/2	80	7.5YR 5/6	15		M	Loamy/Clayey	
8-16	10111072		5YR 3/4	5		M	Loamy/Clayey	
			01110/1					_
								_
-	-							
	-	· · · · · · · · ·						
	•							·
	•							·
¹Type: C=Cor	ncentration, D=Depletion	on, RM=Reduc	ced Matrix, MS=Mask	ed Sand Gr	ains.		²Locatio	n: PL=Pore Lining, M=Matrix.
Black Hi Hydroge Stratified Depleted Thick Da Sandy N Sandy R Stripped Dark Sui	(A1) pipedon (A2)	A11) - - - - - -	Polyvalue Below Thin Dark Surfac Loamy Mucky Mi Loamy Gleyed M X Depleted Matrix Redox Dark Surf Depleted Dark S Redox Depression	te (S9) (LR inneral (F1) (latrix (F2) (F3) face (F6) urface (F7) ons (F8)	R R, MLRA (LRR K, L)	A 149B)	9B) 2 cm Mi Coast P 5 cm Mi Dark Su Polyvalu Thin Da Iron-Ma Piedmo Mesic S Red Pai Very Sh Other (E	or Problematic Hydric Soils ³ : uck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R) ucky Peat or Peat (S3) (LRR K, L, R) urface (S7) (LRR K, L) ue Below Surface (S8) (LRR K, L) urk Surface (S9) (LRR K, L) nganese Masses (F12) (LRR K, L, R) nt Floodplain Soils (F19) (MLRA 149B) prodic (TA6) (MLRA 144A, 145, 149B) rent Material (F21) uallow Dark Surface (TF12) Explain in Remarks)
Restrictive L Type: Depth (in	ches):		<u> </u>				Hydric Soil Pres	sent? Yes <u>X</u> No
Remarks:							1	
Tomans.								

Project/Site:	Heritage Wind	City/County:	Orleans Cou	unty	Sampling Date: 08/14/2019		
Applicant/Owner:	Heritage Wind, LL	C (Apex Clean Energy)			Sampling Point: FA WETLAND 03		
Investigator(s):	AS, JK	Section, Town			wn of Barre		
Landform (hillslope, terrace, etc):		Local relief (concave, o	convex, none):	none	Slope (%):Gentle (0-5%		
Subregion (LRR or MLRA): LRR	L - Central Great Lakes For	ests Lat: 43.1793	308 Long:	-78.209605	Datum: WGS 1984		
Soil Map Unit Name:	L	_yons silt loam		NWI classification	on: PF01		
Are climatic / hydrologic conditions	s on the site typical for this ti	me of year? Yes X	No (If no, e	explain in Remark	s.)		
Are Vegetation , Soil	, or Hydrology	significantly disturbed?	Are "Normal Circ	umstances" prese	nt? Yes X No		
Are Vegetation, Soil _ Are Vegetation, Soil	, or Hydrology	naturally problematic?	(If needed, expla	in any answers in	Remarks.)		
SUMMARY OF FINDINGS			locations, transec	ts, important	features, etc.		
Hydrophytic Vegetation Present	? Yes X	No Is t	the Sampled Area				
Hydric Soil Present?	Yes X		hin a Wetland?	Yes X	No		
Wetland Hydrology Present?	Yes X		es, optional Wetland Site	ID:	FA WETLAND 034		
Remarks: (Explain alternative p	rocedures here or in a separ	. ,					
HYDROLOGY							
Wetland Hydrology Indicators	:						
Primary Indicators (minimum of	one required; check all that	apply)		Secondary Indica	ators (minimum of two required)		
Surface Water (A1)	X	Water-Stained Leaves (B9)		Surface Soil	Cracks (B6)		
High Water Table (A2)		Aquatic Fauna (B13)		Drainage Patterns (B10)			
Saturation (A3)		Marl Deposits (B15)		Moss Trim Lines (B16)			
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Dry-Season	Water Table (C2)		
Sediment Deposits (B2)	<u> </u>	Oxidized Rhizospheres on Li	ving Roots (C3)	Crayfish Bur	rrows (C8)		
Drift Deposits (B3)	<u> </u>	Presence of Reduced Iron (C	24)	X Saturation V	isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Recent Iron Reduction in Tille	ed Soils (C6)	Stunted or S	Stressed Plants (D1)		
Iron Deposits (B5)		Thin Muck Surface (C7)		X Geomorphic	Position (D2)		
Inundation Visible on Aeria	I Imagery (B7)	Other (Explain in Remarks)		Shallow Aqu	uitard (D3)		
Sparsely Vegetated Conca	ve Surface (B8)			Microtopogra	aphic Relief (D4)		
				FAC-Neutra	I Test (D5)		
Field Observations:							
Surface Water Present?	Yes No X	Depth (inches):					
Water Table Present?	Yes No X	Depth (inches):					
Saturation Present?	Yes No X	Depth (inches):	Wetland Hydr	ology Present?	Yes X No		
(includes capillary fringe)							
D 11 D 1 1D 1 / 1	2						
Describe Recorded Data (stream	n gauge, monitoring well, ae	erial photos, previous inspect	lons), if available:				
Remarks:							

VEGETATION - Use scientific names of plants. Sampling Point: FA WETLAND 034 **Dominance Test worksheet: Number of Dominant Species** Absolute Dominant Indicator That Are OBL, FACW, or FAC: 2 (A) Tree Stratum (Plot size: %Cover Species? Status 1. Acer saccharinum / Silver maple **FACW Total Number of Dominant** Species Across All Strata: 2 (B) 3. _ Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: 80 = Total Cover OBL species 0 x 1 = ____ Sapling/Shrub Stratum (Plot size: 15) FACW species 95 ___ x 2 = __ 0 x 3 = 0 FAC species 0 FACU species x 4 = UPL species 0 x 5 = 95 (A) __ Column Totals: 2.0 Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 0 = Total Cover 1 - Rapid Test for Hydrophytic Vegetation Herb Stratum (Plot size: 1 Sq. M. X 2 - Dominance Test is >50% 1. Acer saccharinum / Silver maple 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations (Provide supporting ___ Problematic Hydrophytic Vegetation¹ (Explain) 4. ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 8. **Definitions of Vegetation Strata** 9. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. 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. Woody Vine Stratum (Plot size: 30) 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. 0 = Total Cover Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: FA WETLAND 034

Profile Descr	iption: (Describe to t	he depth nee	ded to document th	ne indicator	or confirm	the abse	nce of indicators	s.)
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type¹	Loc²	Texture	Remarks
0-8	10YR 2/2	100						
8-18	10YR 6/1	90	7.5YR 5/6	10			Loamy/Clayey	
		·						
		. <u></u> -						
		. <u></u> -						
		. <u></u> -						
		. <u></u> -						
		·						
¹Type: C=Con	centration, D=Depletio	n, RM=Reduc	ed Matrix, MS=Mask	ked Sand Gra	ains.		²Locat	tion: PL=Pore Lining, M=Matrix.
Black His Hydroger Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) ipedon (A2)	A11) - - - - 	Polyvalue Below Thin Dark Surfact Loamy Mucky M Loamy Gleyed M X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LRI fineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ons (F8)	R R, MLRA LRR K, L)	A 149B)	9B)	for Problematic Hydric Soils ³ : Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) alue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) danganese Masses (F12) (LRR K, L, R) nont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B) Parent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Restrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	resent? Yes X No
							_	
Remarks:								

Project/Site:	Heritage Wind			County	Sampling Date:	08/14/2019		
Applicant/Owner:	Heritage Wind, LL	C (Apex Clean Energy)		State: New York	Sampling Point: JK	Q/FA034@UPL		
Investigator(s):	AS, JK	Section, T	ownship, Range:		wn of Barre			
Landform (hillslope, terrace, etc):		Local relief (conca	ve, convex, none):	convex	Slope (9	%):Gentle (0-5%		
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Fore	ests Lat: 43.	179458 Long:	-78.20954	3 Datum:	WGS 1984		
Soil Map Unit Name:	L	yons silt loam	_	NWI classification	on:			
Are climatic / hydrologic conditions				no, explain in Remark	(s.)			
Are Vegetation, Soil	, or Hydrology	significantly disturbed	Circumstances" prese	ent? Yes X	No			
Are Vegetation, Soil _ Are Vegetation, Soil	, or Hydrology	naturally problematic?	? (If needed, e	xplain any answers in	Remarks.)			
SUMMARY OF FINDINGS				sects, important	features, etc.			
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Area	· · · · · · · · · · · · · · · · · · ·				
Hydric Soil Present?	Yes		within a Wetland?	Yes	No X			
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland					
Remarks: (Explain alternative p	rocedures here or in a separ	. ,						
HYDROLOGY								
Wetland Hydrology Indicators	:							
Primary Indicators (minimum of		apply)		Secondary Indic	ators (minimum of two	o required)		
Surface Water (A1)	•	Water-Stained Leaves (E	39)		il Cracks (B6)	<u> </u>		
High Water Table (A2)		Aquatic Fauna (B13)	-,		Drainage Patterns (B10)			
Saturation (A3)		Marl Deposits (B15)		Moss Trim Lines (B16)				
Water Marks (B1)	<u> </u>	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Burrows (C8)				
Drift Deposits (B3)	<u> </u>	Presence of Reduced Iro	on (C4)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)		Recent Iron Reduction in	n Tilled Soils (C6)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)	- .	Thin Muck Surface (C7)		Geomorphi	c Position (D2)			
Inundation Visible on Aeria	I Imagery (B7)	Other (Explain in Remar	ks)	Shallow Aq	uitard (D3)			
Sparsely Vegetated Conca	ve Surface (B8)			Microtopog	raphic Relief (D4)			
				FAC-Neutra	al Test (D5)			
Field Observations:								
Surface Water Present?	Yes No X	Depth (inches):						
Water Table Present?	Yes No X	Depth (inches):						
Saturation Present?	Yes No X	Depth (inches):	Wetland I	Hydrology Present?	Yes	No X		
(includes capillary fringe)						<u> </u>		
D 11 D 1 1D 1 / 1	20.1							
Describe Recorded Data (stream	n gauge, monitoring well, ae	erial photos, previous ins	pections), if available:					
Remarks:								

VEGETATION - Use scientific names of plants. Sampling Point: JKQ/FA034@UPL **Dominance Test worksheet: Number of Dominant Species** Absolute Dominant Indicator That Are OBL, FACW, or FAC: 0_____(A) Tree Stratum (Plot size: 30) %Cover Species? Status **Total Number of Dominant** Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = ____ Sapling/Shrub Stratum (Plot size: ______15 ____) 10 ___ x 2 = __ FACW species 15 ___ x 3 = __ FAC species 51 FACU species x 4 = _ x 5 = UPL species 0 _ (A) _ Column Totals: 76 3.5395 Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 0 = Total Cover ___ 1 - Rapid Test for Hydrophytic Vegetation Herb Stratum (Plot size: 1 Sq. M.) 2 - Dominance Test is >50% 1. Solidago canadensis / Canada goldenrod 20 FACU Yes 3 - Prevalence Index ≤3.01 2. Parthenocissus quinquefolia / Virginia creeper 20 Yes FACU 4 - Morphological Adaptations (Provide supporting 3. Toxicodendron radicans / Eastern poison ivy 15 FAC Problematic Hydrophytic Vegetation¹ (Explain) 4. Ambrosia artemisiifolia / Annual ragweed, Common ragweec 10 No FACU 5. Phalaris arundinacea / Reed canarygrass, Reed canary gras 10 FACW No ¹Indicators of hydric soil and wetland hydrology must 6. Oxalis / Woodsorrel No be present, unless disturbed or problematic. 7. Lobelia inflata / Indian-tobacco 8. **Definitions of Vegetation Strata** 9. 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 78 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30) 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. 0 = Total Cover Hydrophytic Vegetation Present? Yes ____ No __X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: <u>JKQ/FA034@UPL</u>

	iption: (Describe to th	ne depth need			or confirm	the absen	ce of indicator	s.)	
Depth	Matrix			Features					
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u></u> %	Type ¹	Loc ²	Texture		Remarks
0-8	10YR 4/3	100					-		
8-12	10YR 4/3	50						Argo till mo	und
	10YR 4/6	50							
			_						
¹Type: C=Con	centration, D=Depletio	n, RM=Reduce	ed Matrix, MS=Maske	ed Sand Gra	ains.		²Loca	ition: PL=Por	e Lining, M=Matrix.
Black His Hydroger Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) ipedon (A2)	.RA 149B)	Polyvalue Below Thin Dark Surfac Loamy Mucky Mi Loamy Gleyed M Depleted Matrix (Redox Dark Surfac Depleted Dark Si Redox Depression	e (S9) (LRi neral (F1) (latrix (F2) (F3) ace (F6) urface (F7) ons (F8)	R R, MLRA LRR K, L)	A 149B)	B) 2 cm Coas 5 cm Dark Polyv Thin Iron-l Piedr Mesi Red Very Othe	Muck (A10) t Prairie Redo Mucky Peat o Surface (S7) ralue Below S Dark Surface Manganese M mont Floodpla c Spodic (TA6 Parent Materi	Surface (TF12)
	ayer (if observed):								
Type:								. =	
Depth (inc	ches):	12					Hydric Soil P	resent?	Yes NoX
Remarks: F	Rock, Old agricultural d	eposit mound							

Project/Site:	Heritage Wind	City/Coun	ty: Orleans Co	ounty	Sampling Date:	08/14/2019		
Applicant/Owner:	Heritage Wind, L	LC (Apex Clean Energy)			Sampling Point:	JKQ@wet1		
Investigator(s):	AS, JK	Section, T	ownship, Range:	To	wn of Barre			
Landform (hillslope, terrace, etc):	Ditch	Local relief (conca	ve, convex, none):	concave	Slope	(%):Gentle (0-5%		
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Fo	orests Lat: 43.179493	Long:	-78.209589		n: WGS 1984		
Soil Map Unit Name:		Lyons silt loam		NWI classification	on: F	PF01		
Are climatic / hydrologic conditions	on the site typical for this	time of year? Yes X	No (If no,	_ explain in Remark	s.)			
Are Vegetation, Soil	, or Hydrology	significantly disturbed	? Are "Normal Cire	cumstances" prese	ent? Yes 2	X No		
	, or Hydrology			ain any answers in	Remarks.)			
SUMMARY OF FINDINGS	- Attach site map sh	nowing sampling po	oint locations, transec	ts, important	features, etc.			
Hydrophytic Vegetation Present	? Yes X	No	Is the Sampled Area					
Hydric Soil Present?	Yes X		within a Wetland?	Yes X	No			
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site	e ID:	JKQ	<u> </u>		
Remarks: (Explain alternative programme)	renced in Report a	. ,						
HYDROLOGY								
Wetland Hydrology Indicators	:							
Primary Indicators (minimum of		it apply)		Secondary Indica	ators (minimum of t	wo required)		
Surface Water (A1)		Water-Stained Leaves (E	39)		Cracks (B6)	<u></u>		
High Water Table (A2)	_	Aquatic Fauna (B13)	,	Drainage Patterns (B10)				
Saturation (A3)	_	Marl Deposits (B15)		Moss Trim Lines (B16)				
Water Marks (B1)	_	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)	X	Oxidized Rhizospheres	,	Crayfish Bu	` ,			
Drift Deposits (B3)	_	Presence of Reduced Iro	• ,		/isible on Aerial Ima	agery (C9)		
Algal Mat or Crust (B4)	_	Recent Iron Reduction in	` '		Stressed Plants (D	. , ,		
Iron Deposits (B5)	_	Thin Muck Surface (C7)	(,		Position (D2)	,		
Inundation Visible on Aeria	I Imagery (B7)	Other (Explain in Remark	ks)	Shallow Aqu	` '			
Sparsely Vegetated Conca	- · · · —	(—	,		aphic Relief (D4)			
	(,			FAC-Neutra	. ,			
Field Observations:								
Surface Water Present?	Yes No X	Depth (inches):						
Water Table Present?	Yes No X	Depth (inches):						
Saturation Present?	Yes No X	Depth (inches):	Wetland Hvd	rology Present?	Yes X	No		
(includes capillary fringe)	···	().						
D 11 D 1 1 D 1 1 1								
Describe Recorded Data (stream	n gauge, monitoring well, a	aeriai pnotos, previous ins	pections), if available:					
Remarks:								

			Sampling Point:JKQ@wet
Absolute %Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
-			Total Number of Dominant Species Across All Strata: 2 (B)
	_		Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/I
			Prevalence Index worksheet:
10	_ = Total Cov	er	Total % Cover of: Multiply by:
			OBL species 10 x 1 = 10
			FACW species 60 x 2 = 120
			FAC species 0 x 3 = 0
			FACU species 10 x 4 = 40
			UPL species 0 x 5 = 0
			Column Totals: <u>80</u> (A) <u>170</u> (I
			Prevalence Index = B/A = 2.125
0	= Total Cov	er	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
			X 2 - Dominance Test is >50%
45	Yes	FACW	3 - Prevalence Index ≤3.0¹
10	No	FACU	
10	No	OBL	4 - Morphological Adaptations (Provide supporting
5	No	FACW	Problematic Hydrophytic Vegetation¹ (Explain)
			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
			Definitions of Vegetation Strata
			Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
			Sapling/shrub - Woody plants less than 3 in. DBH and
70	= Total Cov	er	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.
0	= Total Cov	er	Hydrophytic
			Vegetation
	0 45 10 10 5	Species? Yes	Species Status FACW

SOIL Sampling Point: JKQ@wet1

Depth	Matrix		Redox	r Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-3	10YR 3/2	98	7.5YR 4/6	2	C	PL	Loamy/Clayey	
3-9	10YR 5/2	90	10YR 5/8	10	С	М	Loamy/Clayey	Rock restriction in multiple locations
ype: C=Con	centration, D=Depletion	ı, RM=Redi	uced Matrix, MS=Mask	ked Sand Gra	ains.		²Loca	ntion: PL=Pore Lining, M=Matrix.
Black His Hydroger Stratified Depleted Thick Da Sandy M Sandy G Sandy Re Stripped Dark Sur	(A1) ipedon (A2) stic (A3) n Sulfide (A4) Layers (A5) Below Dark Surface (Ark Surface (A12) ucky Mineral (S1) leyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, ML	RA 149B)	Polyvalue Below Thin Dark Surfar Loamy Mucky M Loamy Gleyed M X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LRI lineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ons (F8)	R R, MLRA	A 149B)	9B) 2 cm Coas 5 cm Dark Polyv Thin I Iron-N Piedr Mesic Red F Very	s for Problematic Hydric Soils ³ : Muck (A10) (LRR K, L, MLRA 149B) t Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) ralue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R) c Spodic (TA6) (MLRA 144A, 145, 149B Parent Material (F21) Shallow Dark Surface (TF12) r (Explain in Remarks)
Restrictive La	hydrophytic vegetation ayer (if observed):	and wetland	d hydrology must be pi	resent, unles	s disturbed	d or proble	matic.	
Type: Depth (inc	ches):	9					Hydric Soil P	resent? Yes X No
Remarks:	Rock restriction in multip	ole locations	S				1	

Project/Site:	Heritage Wind	City/Cou	nty: Orleans Co	ounty	Sampling Date:	08/14/2019		
Applicant/Owner:	Heritage Wind	, LLC (Apex Clean Energy)		ate: New York	Sampling Point:	JKR@wet1		
Investigator(s):			Township, Range:		wn of Barre			
Landform (hillslope, terrace, etc):	Ditch		ave, convex, none):	concave	Slope	(%):Gentle (0-5%		
Subregion (LRR or MLRA): LRR I	L - Central Great Lakes	Forests Lat: 43	3.177583 Long:	-78.21205°	1 Datun	n: WGS 1984		
Soil Map Unit Name:		Hilton loam	_	NWI classification	on: F	R4SB		
Are climatic / hydrologic conditions	on the site typical for th	is time of year? Yes	X No (If no,	explain in Remark	s.)			
Are Vegetation, Soil	, or Hydrology	significantly disturbe	d? Are "Normal Cir	cumstances" prese	ent? Yes <u>)</u>	X No		
Are Vegetation, Soil	, or Hydrology	naturally problemation	? (If needed, expl	ain any answers in	Remarks.)			
SUMMARY OF FINDINGS	- Attach site map	showing sampling p	oint locations, transed	cts, important	features, etc.			
Hydrophytic Vegetation Present	? Yes X	No	Is the Sampled Area					
Hydric Soil Present?	Yes X	No	within a Wetland?	Yes X	No			
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site	e ID:	JKR	<u>-</u>		
Remarks: (Explain alternative pr	ocedures here or in a se	. ,						
HYDROLOGY								
Wetland Hydrology Indicators	:							
Primary Indicators (minimum of	one required; check all t	hat apply)		Secondary Indica	ators (minimum of t	wo required)		
Surface Water (A1)		Water-Stained Leaves ((B9)	X Surface Soil Cracks (B6)				
High Water Table (A2)	_	Aquatic Fauna (B13)		Drainage Patterns (B10)				
Saturation (A3)	_	Marl Deposits (B15)		Moss Trim Lines (B16)				
Water Marks (B1)	_	Hydrogen Sulfide Odor	(C1)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bu	rrows (C8)			
Drift Deposits (B3)		Presence of Reduced I	ron (C4)	X Saturation V	/isible on Aerial Ima	agery (C9)		
Algal Mat or Crust (B4)		Recent Iron Reduction	in Tilled Soils (C6)	Stunted or S	Stressed Plants (D1	1)		
Iron Deposits (B5)	_	Thin Muck Surface (C7))	Geomorphic	Position (D2)			
X Inundation Visible on Aerial	Imagery (B7)	Other (Explain in Rema	ırks)	Shallow Aqu	uitard (D3)			
Sparsely Vegetated Concav	ve Surface (B8)			Microtopogr	aphic Relief (D4)			
				FAC-Neutra	I Test (D5)			
Field Observations:								
Surface Water Present?	Yes No X	Depth (inches):						
Water Table Present?	Yes No X	Depth (inches):						
Saturation Present?	Yes No X	Depth (inches):	Wetland Hyd	rology Present?	Yes X	No		
(includes capillary fringe)		<u> </u>				· 		
		Landal mhatas considered	anations) if a == !!=!-!-					
Describe Recorded Data (stream	n gauge, monitoring wei	i, aeriai pnotos, previous in	spections), if available:					
Damada								
Remarks:								

e Stratum (Plot size:)	Absolute %Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
				1
		_		Total Number of Dominant Species Across All Strata: 1 (B)
		_		Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B
		_		Prevalence Index worksheet:
	0	= Total Cov	er	Total % Cover of: Multiply by:
oling/Shrub Stratum (Plot size: 15)				OBL species15 x 1 =15
				FACW species 95 x 2 = 190
		_		FAC species 0 x 3 = 0
				FACU species 0 x 4 = 0
				UPL species 0 x 5 = 0
				Column Totals: 110 (A) 205 (E
				Prevalence Index = B/A = 1.8636
				Hydrophytic Vegetation Indicators:
	0	_ = Total Cov	er	1 - Rapid Test for Hydrophytic Vegetation
b Stratum (Plot size: 1 Sq. M.)				X 2 - Dominance Test is >50%
Phalaris arundinacea / Reed canarygrass, Reed canary gras		Yes	FACW	3 - Prevalence Index ≤3.0¹
Sparganium eurycarpum / Broadfruit bur reed	15	No	OBL	4 - Morphological Adaptations (Provide supporting
Mentha arvensis / American wild mint, Field mint	5	No	FACW	Problematic Hydrophytic Vegetation¹ (Explain)
Carex alopecoidea / Fox-tail sedge	5	No	FACW	1 Toble made Try drophly do Vegetation (Explain)
				¹Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
				be present, unless distalbed of presionade.
				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
	110	_ = Total Cov	er	greater than or equal to 3.28 ft (1 m) tall.
ody Vine Stratum (Plot size:30)				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.
	0	= Total Cov	 er	Hydrophytic
		-		Vegetation Present? Yes X No

SOIL Sampling Point: JKR@wet1

Profile Descr	iption: (Describe to t	ne depth nee	eded to document th	e indicator	or confirm	the abse	ence of indicators	
Depth	Matrix	чоры		Features				,
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-5	10YR 3/2	98	7.5YR 4/6	2	C	PL	Loamy/Clayey	
5-10	10YR 4/2	95	10YR 4/6	5				
10-18	7.5YR 5/2	85	7.5YR 4/6	15	С	М	Loamy/Clayey	
				<u></u> .				
¹Type: C=Con	centration, D=Depletio	n, RM=Redu	ced Matrix, MS=Mask	ed Sand Gra	ains.		²Locati	ion: PL=Pore Lining, M=Matrix.
Black His Hydroger Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) ipedon (A2)	.RA 149B)	Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed N X Depleted Matrix Redox Dark Surl Depleted Dark S Redox Depression	ce (S9) (LR ineral (F1) (Matrix (F2) (F3) face (F6) curface (F7) ons (F8)	R R, MLRA LRR K, L)	A 149B)	9B)	for Problematic Hydric Soils ³ : Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Burface (S7) (LRR K, L) Bulue Below Surface (S8) (LRR K, L) Bark Surface (S9) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B) Barent Material (F21) Ballow Dark Surface (TF12) (Explain in Remarks)
Restrictive L	ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soil Pre	esent? Yes X No
Remarks:								

Project/Site: Heritage Wind City/County: Orleans County Sampling Date: 08/14/20 Applicant/Owner: Heritage Wind, LLC (Apex Clean Energy) State: New York Sampling Point: JMD@L Investigator(s): AS, JK Section, Township, Range: Town of Barre Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%).Gentle Subregion (LRR or MLRA): LRR L - Central Great Lakes Forests Lat: 43.203625 Long: -78.119752 Datum: WGS Soil Map Unit Name: Churchville silt loam 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 X Is the Sampled Area
Investigator(s): AS, JK Section, Township, Range: Town of Barre Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): Subregion (LRR or MLRA): LRR L - Central Great Lakes Forests Lat: 43.203625 Lat: 43.203625 Long: -78.119752 Datum: WGS Soil Map Unit Name: Churchville silt loam NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes X Are Vegetation Soil Or Hydrology Significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation Soil Or Hydrology Inaturally 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 Is the Sampled Area
Subregion (LRR or MLRA): LRR L - Central Great Lakes Forests
Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No X Is the Sampled Area
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No X Is the Sampled Area
Are Vegetation, Soil, or Hydrologysignificantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation, Soil, or Hydrologynaturally 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 NoX
Are Vegetation, Soil, or Hydrologynaturally 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 NoX Is the Sampled Area
Are Vegetation, Soil, or Hydrologynaturally 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 NoX Is the Sampled Area
Hydrophytic Vegetation Present? Yes NoX Is the Sampled Area
Hydric Soil Present? Yes No X within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)
Referenced in Report as: 3K
HYDROLOGY
Wetland Hydrology Indicators:
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B15) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) Microtopographic Relief (D4)
FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No X Depth (inches):
Water Table Present? Yes No X Depth (inches):
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X
(includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

				Sampling Point:	JMD@UPL
ree Stratum (Plot size:30)	Absolute %Cover	Dominant Species?	Indicator Status	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: 0.0	(A/B)
·		-		Prevalence Index worksheet:	
	0	= Total Cov	er	Total % Cover of: Multiply	by:
apling/Shrub Stratum (Plot size: 15)		_		OBL species0 x 1 =	0
·				FACW species 0 x 2 =	0
				FAC species 25 x 3 = 7	75
				FACU species 10 x 4 = 4	10
				<u> </u>	50
·					65 (B
				Prevalence Index = B/A = 4.076	`
·		-			
	0	= Total Cov	er	Hydrophytic Vegetation Indicators:	
erb Stratum (Plot size: 1 Sq. M.)		_		1 - Rapid Test for Hydrophytic Vegetation	
Asclepias syriaca / Common milkweed	30	Yes	UPL	2 - Dominance Test is >50%	
. Bromus / Brome	20	Yes		3 - Prevalence Index ≤3.0¹	
. Cornus racemosa / Gray dogwood	15	No	FAC	4 - Morphological Adaptations (Provide su	
Vitis riparia / River-bank grape	10	No	FAC	Problematic Hydrophytic Vegetation¹ (Exp	lain)
Cirsium arvense / Canada thistle	10	No No	FACU		
- Stolam artones / Sanada anodo				¹ Indicators of hydric soil and wetland hydrology	/ must
				be present, unless disturbed or problematic.	
·				Definitions of Vegetation Strata	
0. 				Tree - Woody plants 3 in. (7.6 cm) or more in d breast height (DBH), regardless of height.	liameter at
2.				Sapling/shrub - Woody plants less than 3 in. [DBH and
Voody Vine Stratum (Plot size: 30)	85	_ = Total Cov	er	greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, reg	ardless of
				size, and woody plants less than 3.28 ft tall.	
·		_		Woody vines - All woody vines greater than 3. height.	.28 ft in
-	0	= Total Cov	er	Hydrophytic	
				Vegetation	

SOIL Sampling Point: JMD@UPL

SUIL								San	ipiing Point.	JIVID@UPL
Profile Desci	ription: (Describe to t	he depth nee	ded to document th	e indicator	or confirm	the abse	nce of indicators.)			
Depth	Matrix	•	Redox	Features			,			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture		Remarks	
0-15	10YR 4/3	100	,				Loamy/Clayey			
15-18	7.5YR 5/4	70					Loamy/Clayey			
15-18	7.5YR 4/2	30								
				· ——						
				· ——						
				· ——						
				· ——						
				· ——						
				· ——						
		·		-						
		·		-						
		·		-						
¹Type: C=Cor	ncentration, D=Depletion	n, RM=Reduc	ed Matrix, MS=Mask	ed Sand Gr	ains.		²Location	n: PL=Pore	Lining, M=Matr	rix.
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) pipedon (A2)		Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR lineral (F1) Matrix (F2) (F3) face (F6) Surface (F7) ons (F8)	R R, MLRA	A 149B)	2 cm Mu Coast Pi 5 cm Mu Dark Sui Polyvalu Thin Dar Iron-Mar Piedmor Mesic Si Red Pan Very Sha Other (E	ck (A10) (L rairie Redox cky Peat or rface (S7) (e e Below Su k Surface (S nganese Ma at Floodplair codic (TA6) ent Material	rface (S8) (LR S9) (LRR K, L Isses (F12) (L In Soils (F19) (M (MLRA 144A (F21) Surface (TF12)	A 149B) K, L, R) RR K, L, R) RR K, L) L) LRR K, L, R) MLRA 149B) L, 145, 149B)
	ayer (if observed):									
Type:									.,	
Depth (in	ches):		<u> </u>				Hydric Soil Pres	ent?	Yes	No X
Remarks:										

Project/Site:	Heritage Wind	City/Cou	nty: Orleans C	ounty	Sampling Date:	08/14/2019
Applicant/Owner:	Heritage Wind	d, LLC (Apex Clean Energy)		State: New York	Sampling Point:	JMD@wet1
Investigator(s):	AS, JK	Section,	Township, Range:		wn of Barre	
Landform (hillslope, terrace, etc):	Flat		ave, convex, none):	none	Slope (%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes	Forests Lat: 43	3.203625 Long:	-78.11975	4 Datum:	WGS 1984
Soil Map Unit Name:		Churchville silt loam		NWI classification	on: PEM	
Are climatic / hydrologic conditions	on the site typical for t	his time of year? Yes	X No (If no	o, explain in Remark	(s.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbe	d? Are "Normal C	ircumstances" prese	ent? Yes X	No
Are Vegetation, Soil	, or Hydrology	naturally problemation	? (If needed, exp	olain any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map	showing sampling p	oint locations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes X	No	Is the Sampled Area			
Hydric Soil Present?	Yes X		within a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Si	te ID:	JMD	
Remarks: (Explain alternative pr	rocedures here or in a s	. ,				
HYDROLOGY						
Wetland Hydrology Indicators	:					
Primary Indicators (minimum of		that apply)		Secondary Indica	ators (minimum of tw	o required)
Surface Water (A1)	•	Water-Stained Leaves	(B9)		il Cracks (B6)	
High Water Table (A2)	-	Aquatic Fauna (B13)	,	Drainage Patterns (B10)		
Saturation (A3)	-	Marl Deposits (B15)		Moss Trim L	Lines (B16)	
Water Marks (B1)	·	Hydrogen Sulfide Odor	(C1)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	·	X Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)	·	Presence of Reduced I	ron (C4)	Saturation \	/isible on Aerial Imag	gery (C9)
Algal Mat or Crust (B4)	·	Recent Iron Reduction	in Tilled Soils (C6)	Stunted or S	Stressed Plants (D1)	
Iron Deposits (B5)	·	Thin Muck Surface (C7)	Geomorphic	c Position (D2)	
Inundation Visible on Aeria	I Imagery (B7)	Other (Explain in Rema	irks)	Shallow Aqu	uitard (D3)	
Sparsely Vegetated Concar	ve Surface (B8)			X Microtopogr	raphic Relief (D4)	
				FAC-Neutra	al Test (D5)	
Field Observations:						
Surface Water Present?	Yes No	C Depth (inches):				
Water Table Present?	Yes No	C Depth (inches):				
Saturation Present?	Yes No	C Depth (inches):	Wetland Hy	drology Present?	Yes X	No
(includes capillary fringe)				•		
. , ,						
Describe Recorded Data (stream	n gauge, monitoring we	ll, aerial photos, previous in	spections), if available:			
Remarks:						

GETATION - Use scientific names of plants.				Sampling Point:JMD@wet
ree Stratum (Plot size: 30)	Absolute %Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
· 				Total Number of Dominant Species Across All Strata: 3 (B)
. <u> </u>				Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/I
·			·	Prevalence Index worksheet:
	0	= Total Cov	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)		_		OBL species 30 x 1 = 30
·				FACW species 10 x 2 = 20
		-		FAC species 0 x 3 = 0
		-		FACU species 15 x 4 = 60
			-	UPL species 0 x 5 = 0
·			-	Column Totals: 55 (A) 110 (
· ·				Prevalence Index = B/A = 2.0
				Hydrophytic Vegetation Indicators:
<u> </u>	0	_ = Total Cov	er	1 - Rapid Test for Hydrophytic Vegetation
lerb Stratum (Plot size: 1 Sq. M.)				2 - Dominance Test is >50%
. Asclepias incarnata / Swamp milkweed	25	Yes	OBL	3 - Prevalence Index ≤3.0¹
. Chamerion angustifolium / Fireweed	25	Yes		4 - Morphological Adaptations (Provide supporting
. Bromus / Brome	20	Yes		Problematic Hydrophytic Vegetation¹ (Explain)
. Carex alopecoidea / Fox-tail sedge	10	No	FACW	
Solidago canadensis / Canada goldenrod	10	No	FACU	¹Indicators of hydric soil and wetland hydrology must
. Symphyotrichum puniceum / Purple-stem american-aster	5	No	OBL	be present, unless disturbed or problematic.
. Ambrosia artemisiifolia / Annual ragweed, Common ragweed	5	No	FACU	be present, unless disturbed of problematic.
· ·				Definitions of Vegetation Strata
0. 1.				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2	100	= Total Cov		Sapling/shrub - Woody plants less than 3 in. DBH and
Voody Vine Stratum (Plot size:30)		_		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.
· <u></u>	0	= Total Cov	er	Hydrophytic
·		_		Vegetation Present? YesX No

SOIL Sampling Point: ___ JMD@wet1

OOIL								Camping Forti. OND@WCCT
Profile Descr	iption: (Describe to t	he depth ne	eded to document th	e indicator	or confirm	the abse	ence of indicators.)	
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-3	10YR 4/2	95	7.5YR 5/8	5	C	PL	Loamy/Clayey	
3-10	10YR 6/2	60	7.5YR 5/8	20	С	M	Loamy/Clayey	
3-10	7.5YR 3/1	20			С	M	Loamy/Clayey	
10-18	7.5YR 6/2	75	7.5YR 5/6	25	С	M	Loamy/Clayey	
	-						<u> </u>	
								
							.	
			-					
	-		-					
1T. 0.0				10 10	.—			DI D. III MANAGE
Type: C=Con	centration, D=Depletio	n, RM=Red	uced Matrix, MS=Mask	ed Sand Gr	ains.		Location:	: PL=Pore Lining, M=Matrix.
Black His Hydrogel Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) ipedon (A2) stic (A3) n Sulfide (A4) Layers (A5) Below Dark Surface (Ark Surface (A12) ucky Mineral (S1) leyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, MI	_RA 149B)	Polyvalue Below Thin Dark Surface Loamy Mucky M Loamy Gleyed M X Depleted Matrix Redox Dark Surface Depleted Dark S Redox Depression	ce (S9) (LR ineral (F1) Aatrix (F2) (F3) face (F6) surface (F7) ons (F8)	RR R, MLRA	A 149B)	2 cm Muc Coast Pra 5 cm Muc Dark Surfi Polyvalue Thin Dark Iron-Mang Piedmont Mesic Spa Red Parei Very Shal Other (Ex	Problematic Hydric Soils ³ : ck (A10) (LRR K, L, MLRA 149B) chirie Redox (A16) (LRR K, L, R) cky Peat or Peat (S3) (LRR K, L, R) cace (S7) (LRR K, L) cs Below Surface (S8) (LRR K, L) cs Surface (S9) (LRR K, L) cyanese Masses (F12) (LRR K, L, R) Floodplain Soils (F19) (MLRA 149B) codic (TA6) (MLRA 144A, 145, 149B) nt Material (F21) low Dark Surface (TF12) plain in Remarks)
Type:	ayer (if observed): ches):						Hydric Soil Prese	ent? Yes X No
Remarks:							1	

Project/Site: Heritage Wind	City/County: Orleans County Sampling Date: 4/30/2019
Applicant/Owner: Heritage Wind, LLC (Apex Clean Energy)	State: NY Sampling Point: JMF@1U
Investigator(s): KW and TC	Section, Township, Range: Town of Barre
Landform (hillside, terrace, etc.): Flat Local	relief (concave, convex, none): None Slope %: 0
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.207492	Long: -78.126273 Datum: WGS84
Soil Map Unit Name: Kendaia and Appleton silt loams	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 _X_, or Hydrologysignificantly distur	
Are Vegetation, Soil, or Hydrologynaturally problems	
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area
Hydric Soil Present? Yes No X	within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	, 900, 000.00.00.00.00.00.00.00.00.00.00.00.00
Tremains. (Explain alternative procedures here of in a separate report.)	
Referenced in Report as: 3M	
•	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor ((C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres	on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced In	on (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in	n Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remar	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	: <u></u>
Water Table Present? Yes No X Depth (inches):	:
Saturation Present? Yes No X Depth (inches):	: Wetland Hydrology Present? Yes No _X
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	

VEGETATION – Use scientific names of plants. Sampling Point:

VEGETATION – Use scientific names of pla	ınts.			Sampling Point:JMF@1U
<u>Tree Stratum</u> (Plot size: <u>30-foot radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				Number of Dominant Species
2.				That Are OBL, FACW, or FAC:0 (A)
3.				Total Number of Dominant
4.				Species Across All Strata: 2 (B)
5.				
				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)
7				Prevalence Index worksheet:
1.		=Total Cover		
Opening of Ohmah, Ohmah una (Diet allers 45 faut und lieux)		- Total Cover		
Sapling/Shrub Stratum (Plot size: 15-foot radius)				OBL species 0 x 1 = 0
1				FACW species 0 x 2 = 0
2.				FAC species0 x 3 =0
3.				FACU species 25 x 4 = 100
4.				UPL species 0 x 5 = 0
5				Column Totals:25 (A)100(B)
6.				Prevalence Index = B/A = 4.00
7.				Hydrophytic Vegetation Indicators:
		=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5-foot radius)				2 - Dominance Test is >50%
1 Digitaria ann	25	Yes		3 - Prevalence Index is ≤3.0 ¹
			FACIL	4 - Morphological Adaptations ¹ (Provide supporting
2. Cerastium fontanum	25	Yes	FACU	data in Remarks or on a separate sheet)
3.				
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8.				Tree – Woody plants 3 in. (7.6 cm) or more in
9.				diameter at breast height (DBH), regardless of height.
10.				Sapling/shrub – Woody plants less than 3 in. DBH
11.				and greater than or equal to 3.28 ft (1 m) tall.
12.				
	50	=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30-foot radius)		Total Gover		
· · · · · · · · · · · · · · · · · · ·				Woody vines – All woody vines greater than 3.28 ft in
1.				height.
2.		· ——		Hydrophytic
3				Vegetation
4				Present?
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	rate sheet.)			•

SOIL Sampling Point JMF@1U

		to the de				ator or co	onfirm the absence of in	dicators.)
Depth	Matrix			Featur		. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10yr 4/3	100					Loamy/Clayey	
8-12	10yr 4/3	95	10yr 4/6	5	С	<u>M</u>	Loamy/Clayey	Distinct redox concentrations
12-16	10yr 4/6	75					Loamy/Clayey	
	10yr 4/3	25						
•	oncentration, D=Depl	etion, RN	/I=Reduced Matrix, M	S=Mas	ked Sand	d Grains.		Pore Lining, M=Matrix.
Hydric Soil I			Pohavoluo Polo	v Surfo	00 (80) (I DD D		Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A2)		Polyvalue Below		ce (So) (LKK K,		(A10) (LRR K, L, MLRA 149B) e Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa		(I RR R	MI RA 1		Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		High Chroma S		-			elow Surface (S8) (LRR K, L)
	I Layers (A5)		Loamy Mucky N					urface (S9) (LRR K, L)
	l Below Dark Surface	(A11)	Loamy Gleyed			· · · · · · , — /		nese Masses (F12) (LRR K, L, R)
	ark Surface (A12)	(,,,,	Depleted Matrix		. –,			oodplain Soils (F19) (MLRA 149B)
	lucky Mineral (S1)		Redox Dark Su		6)			ic (TA6) (MLRA 144A, 145, 149B)
	leyed Matrix (S4)		Depleted Dark		-			Material (F21)
Sandy R	edox (S5)		Redox Depress	ions (F	8)		Very Shallov	w Dark Surface (F22)
Stripped	Matrix (S6)		Marl (F10) (LRI	R K, L)			Other (Expla	ain in Remarks)
Dark Sur	face (S7)							
³ Indicators of	f hydrophytic vegetati	ion and v	vetland hydrology mu	st he ni	esent u	nless dist	urbed or problematic.	
	_ayer (if observed):	on and t	rottana nyarology ma	ot bo pi	ocont, ai	nooc diet	arboa or problematie.	
Type:								
Depth (in	nches):						Hydric Soil Present?	Yes No
Remarks:							•	
								Field Indicators of Hydric Soils,
	2015 Errata. (http://w	ww.nrcs	usda.gov/Internet/FS	E_DO	CUMENT	S/nrcs14	2p2_051293.docx)	
Ag. field								

Project/Site: Heritage Wind	City/County: Orleans County Sampling Date: 4/30/2019
Applicant/Owner: Heritage Wind, LLC (Apex Clean Energy)	State: NY Sampling Point: JMF@1W
Investigator(s): KW, TC	Section, Township, Range: Town of Barre
Landform (hillside, terrace, etc.): Flat Local	relief (concave, convex, none): None Slope %: 0
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.207672	Long: -78.126386 Datum: WGS84
Soil Map Unit Name: Kendaia and Appleton silt loam	NWI classification: PFO1B
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distur	
Are Vegetation, Soil, or Hydrology naturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
Referenced in Report as: 3M	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
X Surface Water (A1) Water-Stained Leaves (I	
X High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (i i i i i i i i i i i i i i i i i i i
Sediment Deposits (B2) Oxidized Rhizospheres of the control of th	
Drift Deposits (B3) Presence of Reduced In	
Algal Mat or Crust (B4) Recent Iron Reduction in This Music Surface (G7)	
Iron Deposits (B5) Thin Muck Surface (C7) Other (Figure in Present in Prese	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remar	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inches):	
Water Table Present? Yes X No Depth (inches):	
Saturation Present? Yes X No Depth (inches):	:0 Wetland Hydrology Present? Yes X No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Demonitor	
Remarks:	

VEGETATION – Use scientific names of plants.

EGETATION – Use scientific names of pla				Sampling Point: <u>JMF@1W</u>
ree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
. Fraxinus pennsylvanica	40	Yes	FACW	Number of Dominant Species
Acer saccharinum	40	Yes	FACW	That Are OBL, FACW, or FAC:3(A)
·		<u> </u>		Total Number of Dominant Species Across All Strata: 4 (B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B
·				Prevalence Index worksheet:
	80	=Total Cover		Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size: 15-foot radius)				OBL species 0 x 1 = 0
Fraxinus pennsylvanica	10	Yes	FACW	FACW species 90 x 2 = 180
				FAC species 0 x 3 = 0
				FACU species 0 x 4 = 0
				UPL species 0 x 5 = 0
				Column Totals: 90 (A) 180 (B
				Prevalence Index = B/A = 2.00
				Hydrophytic Vegetation Indicators:
	10	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
erb Stratum (Plot size: 5-foot radius)		_		X 2 - Dominance Test is >50%
Carex spp	15	Yes		X 3 - Prevalence Index is ≤3.0 ¹
				4 - Morphological Adaptations ¹ (Provide supportir
				data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation ¹ (Explain)
i i				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
0.				Sapling/shrub – Woody plants less than 3 in. DBH
1				and greater than or equal to 3.28 ft (1 m) tall.
2				Herb – All herbaceous (non-woody) plants, regardles:
	15	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Voody Vine Stratum (Plot size: 30-foot radius)				Woody vines – All woody vines greater than 3.28 ft in
·				height.
				Hydrophytic Vegetation
				Present? Yes X No
		=Total Cover		

SOIL Sampling Point JMF@1W

	cription: (Describe t	o the de	•			ator or co	onfirm the absence of	findicators.)
Depth	Matrix			k Featur		. 2	_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-10	2.5YR 3/1	100					Loamy/Clayey	
10-16	5YR 4/2	75	7.5yr 7/6	25	С	M	Loamy/Clayey	Prominent redox concentrations
16-18	5YR 4/2	25	7.5yr 5/6	75	С	M	Loamy/Clayey	Prominent redox concentrations
								_
								_
							·	_
								_
								_
•	oncentration, D=Deple	etion, RN	1=Reduced Matrix, M	1S=Mas	ked Sand	d Grains.		L=Pore Lining, M=Matrix.
Hydric Soil			Daharaksa Dala	0	(00) (or Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A2)		Polyvalue Belo MLRA 149B		ce (58) (I	LKK K,		ck (A10) (LRR K, L, MLRA 149B) airie Redox (A16) (LRR K, L, R)
	stic (A3)		Thin Dark Surfa	•	(LRR R	. MLRA 1		cky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		High Chroma S		-			e Below Surface (S8) (LRR K, L)
	d Layers (A5)		Loamy Mucky					k Surface (S9) (LRR K, L)
X Depleted	d Below Dark Surface	(A11)	Loamy Gleyed	Matrix (F2)		Iron-Man	ganese Masses (F12) (LRR K, L, R)
Thick Da	ark Surface (A12)		X Depleted Matrix	x (F3)			Piedmon	t Floodplain Soils (F19) (MLRA 149B)
Sandy M	lucky Mineral (S1)		Redox Dark Su		-			oodic (TA6) (MLRA 144A, 145, 149B)
	Gleyed Matrix (S4)		Depleted Dark					ent Material (F21)
	tedox (S5)		Redox Depress		8)			allow Dark Surface (F22)
	Matrix (S6) rface (S7)		Marl (F10) (LR	R K, L)			Other (E)	xplain in Remarks)
Daik Su	nace (ST)							
³ Indicators o	f hydrophytic vegetati	on and w	etland hydrology mu	ıst be pr	esent, ur	nless dist	urbed or problematic.	
	Layer (if observed):							
Type:								
Depth (in	nches):						Hydric Soil Presen	t? Yes <u>X</u> No
Remarks:								
			_					S Field Indicators of Hydric Soils,
version 7.0,	2015 Errata. (http://w	ww.nrcs.	usda.gov/internet/F3	ב_חחר	JUMENT	S/nrcs 14.	2p2_051293.docx)	

Project/Site:	Heritage Wind	City/Count	y: Orleans Co	ounty	Sampling Date:	10/09/2019
Applicant/Owner:	Heritage Wind, L	LC (Apex Clean Energy)		ate: New York	Sampling Point:	001-1U
Investigator(s):	JM JK	Section, To	ownship, Range:		wn of Barre	
Landform (hillslope, terrace, etc):			/e, convex, none):	none	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Fo	orests Lat: 43.1	57352 Long:	-78.21953	6 Datun	n: WGS 1984
Soil Map Unit Name:		Odessa silt loam		NWI classificati	on:	
Are climatic / hydrologic condition	s on the site typical for this	time of year? Yes X	No (If no,	explain in Remark	(s.)	
Are Vegetation, Soil _	, or Hydrology	significantly disturbed?	Are "Normal Cir	cumstances" prese	ent? Yes 💛	K No
Are Vegetation , Soil	, or Hydrology	naturally problematic?	(If needed, expl	ain any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map sl	nowing sampling po	int locations, transed	cts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Area			
Hydric Soil Present?	Yes X	No	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site			<u> </u>
Remarks: (Explain alternative p Report ID: 1N	rocedures here or in a sep	arate report.)				
HYDROLOGY						
Wetland Hydrology Indicators	s :					
Primary Indicators (minimum of	one required; check all that	at apply)		Secondary Indic	ators (minimum of t	wo required)
Surface Water (A1)		Water-Stained Leaves (B	9)	Surface Soi	l Cracks (B6)	_
High Water Table (A2)		Aquatic Fauna (B13)		Drainage P	atterns (B10)	
Saturation (A3)		Marl Deposits (B15)		Moss Trim I	Lines (B16)	
Water Marks (B1)		Hydrogen Sulfide Odor (0	C1)	Dry-Seasor	Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres o	n Living Roots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)		Presence of Reduced Iro	n (C4)	Saturation \	/isible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)		Recent Iron Reduction in	Tilled Soils (C6)	Stunted or \$	Stressed Plants (D1	1)
Iron Deposits (B5)		Thin Muck Surface (C7)		Geomorphi	c Position (D2)	
Inundation Visible on Aeria	al Imagery (B7)	Other (Explain in Remark	(s)	Shallow Aq	uitard (D3)	
Sparsely Vegetated Conca	ive Surface (B8)			Microtopog	raphic Relief (D4)	
				FAC-Neutra	al Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	Depth (inches):				
Saturation Present?	Yes No X	Depth (inches):	Wetland Hyd	rology Present?	Yes	No X
(includes capillary fringe)		_				·
D 11 D 1 1 D 1 1 1						
Describe Recorded Data (strea	m gauge, monitoring well,	aeriai photos, previous insp	pections), if available:			
Remarks:						

GETATION - Use scientific names of plants.				_	Samp	ling Poir	nt: 00	1-1U
	A b a a b u b a	Daminant	Indiantar	Dominance Test work Number of Dominant S That Are OBL, FACW,	Species		0	(A)
	Absolute %Cover	Dominant Species?	Indicator Status	mat Are OBL, FACW,	or FAC:		2	_ (A)
. Quercus macrocarpa / Bur oak	10	Yes	FACU	Total Number of Domir	nant			
Fraxinus pennsylvanica / Green ash	5	Yes	FACW	Species Across All Stra			6	(B)
								_ ` ′
				Percent of Dominant S	Species			
·				That Are OBL, FACW,	or FAC:		33.3	_ (A/E
				Prevalence Index wo	rksheet:			
	15	= Total Cove	r	Total % Cover of:	<u> </u>	Mu	ultiply by:	
apling/Shrub Stratum (Plot size:)		_		OBL species	0	x 1 = _	0	
Viburnum lentago / Nanny-berry	15	Yes	FAC	FACW species	5	x 2 = _	10	
				FAC species	15	x 3 = _	45	
·		-: (115	x 4 = _	460	
·		_		UPL species	0	x 5 = _	0	
·				Column Totals: Prevalence Index	135 x = B/A =	(A) _	515 3.81	(I
		<u> </u>		Frevalence inde.	X - D/A -		3.01	
	15	= Total Cove		Hydrophytic Vegetati				
erb Stratum (Plot size: 1 Sq. M.)		_		1 - Rapid Test for		_	tation	
Trifolium repens / White clover	40	Yes	FACU	2 - Dominance Te)		
Plantago major / Common plantain	35	Yes	FACU	4 - Morphological		ne (Prov	ide sunnort	tina
Ambrosia artemisiifolia / Annual ragweed, Common ragweec	30	Yes	<u>FACU</u>	Problematic Hydro				iiig
				¹ Indicators of hydric so	and wet	and hyd	rology mus	.+
·				be present, unless dist		-) L
				Definitions of Vegeta	tion Strata	a		
D				Tree - Woody plants 3 breast height (DBH), re				ter at
2.	105		r	Sapling/shrub - Wood greater than or equal to	dy plants le	ess than	3 in. DBH a	and
/oody Vine Stratum (Plot size:)	100	_ 10.0.70	•	Herb - All herbaceous	(non-wood	dy) plant	s, regardle	ss of
				size, and woody plants Woody vines - All woo				in
:				height.	<u> </u>			
	0	= Total Cove	r	Hydrophytic				
				Vegetation Present?	Yes			

US Army Corps of Engineers

SOIL Sampling Point: _____001-1U

Depth	Matrix		Redox	Features			-		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc²	Texture	Remarks	
0-9	10YR 3/2	100							
9-18	10YR 4/1	75	7.5YR 4/6	25	C	M	Loamy/Clayey		
ype: C=Co	ncentration, D=Depletion	n, RM=Red	uced Matrix, MS=Masl	ked Sand Gr	rains.		²Location: Pl	.=Pore Lining, M=l	Matrix.
Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy F Stripped		,	Polyvalue Below Thin Dark Surfa Loamy Mucky M Loamy Gleyed M X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LF lineral (F1) Matrix (F2) (F3) face (F6) Surface (F7)	RR R, MLRA (LRR K, L)	A 149B)	9B) 2 cm Muck (,	oblematic Hydric A10) (LRR K, L, N Redox (A16) (LF Peat or Peat (S3) Redow (S7) (LRR K, L) Relow Surface (S8) Reface (S9) (LRR Rese Masses (F12) Redordplain Soils (F18 Retail (F21) Redow Surface (TF Redow Surfa	ILRA 149B) RR K, L, R) (LRR K, L, R) (LRR K, L) K, L) (LRR K, L, R) (LRR K, L, R) (MLRA 149B) 44A, 145, 149B
estrictive L	hydrophytic vegetation -ayer (if observed):	and wetland	d hydrology must be p	resent, unles	ss disturbed	l or proble	matic.		
Type: Depth (in	iches):						Hydric Soil Present	? Yes	No
							1		

Project/Site:	Heritage Wind	City/Cour	nty: Orleans C	ounty	Sampling Date:	10/09/2019
Applicant/Owner:	Heritage Wind, L	LC (Apex Clean Energy)	S	tate: New York	Sampling Point:	001-1W
Investigator(s):	JM,JK	Section,	Township, Range:		wn of Barre	
Landform (hillslope, terrace, etc):	Bowl-shaped depresss	ion Local relief (conca	ave, convex, none):	concave	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Fo	rests Lat: 43	.156986 Long:	-78.21917	9 Datum	: WGS 1984
Soil Map Unit Name:	Odessa silt	loam, 0 to 2 percent slop		NWI classification	n: PFO	•
Are climatic / hydrologic conditions	on the site typical for this	time of year? Yes	K No (If no	, explain in Remark	s.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbed	? Are "Normal Ci	rcumstances" prese	ent? Yes 🗡	(No
Are Vegetation, Soil	or Hydrology, or Hydrology	naturally problematic	? (If needed, exp	lain any answers in	Remarks.)	
SUMMARY OF FINDINGS				cts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes X	No	Is the Sampled Area			
Hydric Soil Present?	Yes X	No	within a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Sit	te ID:	001-1W	-
Remarks: (Explain alternative pr PFO Report ID: 1N		arate report.)				
HYDROLOGY						
Wetland Hydrology Indicators	:					
Primary Indicators (minimum of	one required; check all tha	t apply)		Secondary Indica	ators (minimum of t	wo required)
Surface Water (A1)		Water-Stained Leaves (B9)	Surface Soi	l Cracks (B6)	_
High Water Table (A2)	<u> </u>	Aquatic Fauna (B13)		Drainage Pa	atterns (B10)	
Saturation (A3)		Marl Deposits (B15)		X Moss Trim L	ines (B16)	
Water Marks (B1)		Hydrogen Sulfide Odor	(C1)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)		Presence of Reduced Ir	on (C4)	Saturation \	/isible on Aerial Ima	igery (C9)
Algal Mat or Crust (B4)		Recent Iron Reduction i	n Tilled Soils (C6)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)		Thin Muck Surface (C7)		X Geomorphic	Position (D2)	
Inundation Visible on Aeria	Imagery (B7)	Other (Explain in Remai	rks)	Shallow Aqı	uitard (D3)	
X Sparsely Vegetated Concar	ve Surface (B8)			X Microtopogr	aphic Relief (D4)	
				X FAC-Neutra	l Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	Depth (inches):				
Saturation Present?	Yes No X	Depth (inches):	Wetland Hyd	drology Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Data (stream	n gauge, monitoring well, a	erial photos, previous ins	spections), if available:			
Remarks:						

GETATION - Use scientific names of plants	-				•	oling Poi		
				Dominance Test v	vorksheet:			
				Number of Domina	nt Species			
	Absolute	Dominant	Indicator	That Are OBL, FAC	W, or FAC:		9	_ (A)
ree Stratum (Plot size: 30)	%Cover	Species?	Status					
Ulmus americana / American elm	40	Yes	FACW	Total Number of Do	minant			
Acer saccharinum / Silver maple	30	Yes	FACW	Species Across All	Strata:		9	(B)
Fraxinus pennsylvanica / Green ash	20	Yes	FACW					
				Percent of Dominal	nt Species			
				That Are OBL, FAC	W, or FAC:		100.0	_ (A/E
	· ·							_
				Prevalence Index	worksheet:			
		= Total Cov	er	Total % Cover	r of:	M	lultiply by:	
apling/Shrub Stratum (Plot size: 15)		_		OBL species	0	x 1 =	0	
Rhamnus cathartica / European buckthorn	15	Yes	FAC	FACW species	125	x 2 =	250	
Fraxinus pennsylvanica / Green ash	15	Yes	FACW	FAC species	25	x 3 =	75	
				FACU species	0	x 4 =	0	
				UPL species	0	x 5 =	0	
				Column Totals:	150	(A)	325	(E
			·	Prevalence Ir	ndex = B/A =		2.17	
-	-	-	·					
-	30	= Total Cove	or.	Hydrophytic Vege	tation Indica	ators:		
erb Stratum (Plot size: 1 Sq. M.)		_ = 10tal Covi	51	1 - Rapid Test	for Hydrophy	ytic Vege	etation	
Lindera benzoin / Northern spicebush	10	Yes	FACW	X 2 - Dominance	Test is >509	%		
Toxicodendron radicans / Eastern poison ivy	10	Yes	FAC	3 - Prevalence	Index ≤3.0¹			
				4 - Morphologi	cal Adaptation	ons (Pro	vide suppor	ting
Ulmus americana / American elm	10	Yes	FACW	Problematic H	ydrophytic Ve	egetation	n¹ (Explain)	
			- ———					
				¹ Indicators of hydric	soil and we	tland hy	drology mu	st
		_		be present, unless	disturbed or	problem	atic.	
	· · · · · · · · · · · · · · · · · · ·	_		•		·		
				Definitions of Veg	etation Stra	ta		
)				Tree - Woody plant				eter at
l			<u> </u>	breast height (DBH), regardless	of heigh	nt.	
2				Sapling/shrub - W	oody plants l	less thar	n 3 in. DBH	and
	30	_ = Total Cov	er	greater than or equ	al to 3.28 ft (1 m) tall		
oody Vine Stratum (Plot size: 30)				Herb - All herbaced	ous (non-woo	ody) plar	nts, regardle	ess of
Ulmus americana / American elm		Yes	FACW	size, and woody pla	ants less thai	n 3.28 ft	tall.	
				Woody vines - All	woody vines	greater	than 3.28 ft	t in
				height.	,	5		
	0	= Total Cove	er	Hydrophytic				
		_		Vegetation				
				Present?	Yes >	(N	0	

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 001-1W

Depth	Matrix		Redox	Features			_	
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-10	10yr 3/2	95	7.5yr 4/6	5	C	M	Loamy/Clayey	
10-18	10yr 6/2	85	10yr 6/8	15		M	Loamy/Clayey	
ype: C=Cor	ncentration, D=Depletio	n, RM=Red	uced Matrix, MS=Mask	ced Sand G	rains.			=Pore Lining, M=Matrix.
Histosol Histic Ep Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped		,	Polyvalue Below Thin Dark Surfar Loamy Mucky M Loamy Gleyed M X Depleted Matrix X Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LF lineral (F1) Matrix (F2) (F3) face (F6) Surface (F7)	RR R, MLRA (LRR K, L)	A 149B)	2 cm Muck (A Coast Prairie 5 cm Mucky F Dark Surface Polyvalue Bel Thin Dark Sur Iron-Mangane Piedmont Flo Mesic Spodic Red Parent M Very Shallow	A10) (LRR K, L, MLRA 149B) Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) (S7) (LRR K, L) Iow Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, R) odplain Soils (F19) (MLRA 149B (TA6) (MLRA 144A, 145, 149B
	hydrophytic vegetation ayer (if observed):	and wetlan	d hydrology must be pi	resent, unle	ss disturbed	d or proble	ematic.	
Depth (in	ches):						Hydric Soil Present?	Yes X No
							· · · · · · · · · · · · · · · · · · ·	

Project/Site:	Heritage Wind	City	y/County:	Orleans Cou	inty	Sampling Date:	10/09/2019
Applicant/Owner:	Heritage Wir	nd, LLC (Apex Clean En	nergy)	Sta	te: New York	Sampling Point:	001-2W
Investigator(s):	JM,JK	Sec	ction, Township, R			wn of Barre	
Landform (hillslope, terrace, etc):	Bowl-shaped depr	esssion Local relief	(concave, convex,	none):	concave	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lake	es Forests Lat:	43.156957	Long:	-78.21963	4 Datun	n: WGS 1984
Soil Map Unit Name:	Odessa	a silt loam, 0 to 2 percer	nt slopes		NWI classification	on: PEM	
Are climatic / hydrologic condition	s on the site typical for	this time of year? Yes	X No	(If no, e	explain in Remark	s.)	
Are Vegetation, Soil _	X , or Hydrology	significantly dis	turbed?	Are "Normal Circ	umstances" prese	ent? Yes)	K No
Are Vegetation, Soil	, or Hydrology	naturally proble	ematic?	(If needed, explain	in any answers in	Remarks.)	
SUMMARY OF FINDINGS				ions, transec	ts, important	features, etc.	
Hydrophytic Vegetation Presen	t? Yes	X No	Is the San	npled Area			
Hydric Soil Present?	Yes	X No	within a W	/etland?	Yes X	No	
Wetland Hydrology Present?	Yes	X No	If yes, opti	onal Wetland Site	ID:	001-2W	_
Remarks: (Explain alternative p Report ID: 1N	procedures here or in a	separate report.)					
HYDROLOGY							
Wetland Hydrology Indicators	s:						
Primary Indicators (minimum of	f one required; check a	ll that apply)			Secondary Indica	ators (minimum of t	wo required)
Surface Water (A1)		Water-Stained Lea	aves (B9)		Surface Soi	l Cracks (B6)	
High Water Table (A2)		Aquatic Fauna (B	13)		Drainage Pa	atterns (B10)	
Saturation (A3)		Marl Deposits (B1	5)		Moss Trim L	₋ines (B16)	
Water Marks (B1)		Hydrogen Sulfide	Odor (C1)		Dry-Season	Water Table (C2)	
Sediment Deposits (B2)			heres on Living Ro	oots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)		Presence of Redu	iced Iron (C4)		Saturation \	/isible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)		Recent Iron Redu	ction in Tilled Soils	s (C6)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)		Thin Muck Surface	, ,		X Geomorphic	Position (D2)	
Inundation Visible on Aeria	• • • •	Other (Explain in I	Remarks)		Shallow Aqu	uitard (D3)	
Sparsely Vegetated Conca	ave Surface (B8)				Microtopogr	aphic Relief (D4)	
					X FAC-Neutra	l Test (D5)	
Field Observations:							
Surface Water Present?	Yes No	X Depth (inches):					
Water Table Present?	Yes No	X Depth (inches):					
Saturation Present?	Yes No	X Depth (inches):		Wetland Hydr	ology Present?	Yes X	No
(includes capillary fringe)							
Describe Recorded Data (strea	m gauge, monitoring w	vall parial photos provid	ous inspections) if	: available:			
Describe Recorded Data (streat	in gauge, monitoring w	eli, aeriai priotos, previd	ous irispections), ii	avaliable.			
Remarks:							

0	Dominant Species? = Total Cove		Dominance Test wor Number of Dominant That Are OBL, FACW Total Number of Domi Species Across All Str Percent of Dominant S That Are OBL, FACW	Species , or FAC: inant rata: Species , or FAC:		2	_ (A) _ (B)
0			Percent of Dominant S That Are OBL, FACW	Species , or FAC:			_ (B)
0			That Are OBL, FACW	, or FAC:		100.0	
0			Prevalence Index wo	alaa la a d		0.001	_ (A/B)
	= Total Cove		Total 9/ Cover et		Mul	tiply by	
		er	Total % Cover of			tiply by:	_
			OBL species		(1 =	40	
			FACW species	10 x	(2 =	20	
			FAC species	25 x	(3 =	75	
			FACU species	0 x	< 4 =	0	
			UPL species	0 x	(5 =	0	
			Column Totals:	75 (A)	135	(B
				`		1.8	_ `
	- ·		Hydrophytic Vegetat	ion Indicato	ors:		
U	= lotal Cove	er	1 - Rapid Test for	· Hydrophytic	: Vegeta	tion	
					ŭ		
40	Yes	OBL					
25	Yes	FAC			(Provid	la cunnart	ina
15	No			•	,	• • •	iiig
10	No	FACW	Problematic Hydr	opriytic vege	etation	(⊏xpiairi)	
							t
			Definitions of Vegeta	ation Strata			
						in diamet	ter at
00	- Total Cave					in. DBH a	and
	=		Herb - All herbaceous	s (non-woody	/) plants	, regardles	ss of
	-		Woody vines - All wo height.	ody vines gr	eater th	an 3.28 ft	in
0	= Total Cove	er	Hydrophytic Vegetation Present?	Yes X	No		
	0 40 25 15 10	40 Yes 25 Yes 15 No 10 No 90 = Total Cove	0 = Total Cover 40	Column Totals: Prevalence Inde ### Hydrophytic Vegetat 1 - Rapid Test for X 2 - Dominance Te 3 - Prevalence Inde 4 - Morphological Problematic Hydr 1 Indicators of hydric se be present, unless dis Definitions of Vegeta Tree - Woody plants 3 breast height (DBH), r Sapling/shrub - Wood greater than or equal to Herb - All herbaceous size, and woody plants Woody vines - All woheight. 0 = Total Cover Hydrophytic Vegetation Present?	Column Totals: 75 Prevalence Index = B/A =	Column Totals: 75 (A) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 10	Column Totals: 75 (A) 135 Prevalence Index = B/A = 1.8 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.0¹ 4 - Morphological Adaptations (Provide support Problematic Hydrophytic Vegetation¹ (Explain) 1

SOIL Sampling Point: 001-2W

Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-6	10yr 5/2	95	7.5yr 4/6	5	С	М	Loamy/Clayey	
6-18	10yr 5/1	50	10yr 4/6	10	C	M	Loamy/Clayey	
6–18	7.5yr 5/6	40			C	M	Loamy/Clayey	
ype: C=Cor	ncentration, D=Depletio	n, RM=Redu	uced Matrix, MS=Masl	ked Sand Gr	ains.		²Location: PL	.=Pore Lining, M=Matrix.
Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Su		.RA 149B)	Polyvalue Belov Thin Dark Surfa Loamy Mucky M Loamy Gleyed M X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR dineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ions (F8)	R R, MLRA	A 149B)	2 cm Muck (A Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodio Red Parent M Very Shallow Other (Explain	oblematic Hydric Soils ³ : A10) (LRR K, L, MLRA 149B) Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) Redox (S9) (LRR K, L) Redow Surface (S8) (LRR K, L) Reface (S9) (LRR K, L) Rese Masses (F12) (LRR K, L, R) Redorded (S9) (MLRA 149B) Redown (TA6) (MLRA 144A, 145, 149B) Redown (TA6) (MLRA 144A, 145, 149B) Redown (TA6) (MLRA 144A, 145, 149B) Redown (TA6) (MLRA 144A, 145, 149B) Redown (TA6) (MLRA 144A, 145, 149B) Redown (TA6) (MLRA 144A, 145, 149B) Redown (TA6) (MLRA 144A, 145, 149B) Redown (TA6) (MLRA 144A, 145, 149B) Redown (TA6) (MLRA 144A, 145, 149B) Redown (TA6) (MLRA 144A, 145, 149B)
	.ayer (if observed):					<u> </u>		
estrictive L Type:							Hydric Soil Present?	? Yes X No
	ches):						,	165 <u>X</u> 146

Project/Site:	Heritage Wind	City/Cour	nty: Orleans Co	ounty	Sampling Date:	10/09/2019
Applicant/Owner:	Heritage Wind, LL			ate: New York	Sampling Point:	003-1U
Investigator(s):	JM JK		Township, Range:		wn of Barre	
Landform (hillslope, terrace, etc):	Flat		ave, convex, none):	none	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Fore	ests Lat: 43.	181602 Long:	-78.21686	8 Datum	: WGS 1984
Soil Map Unit Name:	Ap	pleton silt loam		NWI classificati	on:	
Are climatic / hydrologic conditions	on the site typical for this ti	me of year? Yes	(No (If no	_ , explain in Remarl	(s.)	
Are Vegetation , Soil	, or Hydrology	significantly disturbed	Are "Normal Cir	cumstances" prese	ent? Yes X	No
Are Vegetation, Soil Are Vegetation, Soil	, or Hydrology	naturally problematic	? (If needed, expl	ain any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map sho	wing sampling po	oint locations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Area			
Hydric Soil Present?	Yes	No X	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Sit	· · · · · · · · · · · · · · · · · · ·		
Remarks: (Explain alternative pr Upland point for we Report ID: 3U		ate report.)				
HYDROLOGY						
Wetland Hydrology Indicators	:					
Primary Indicators (minimum of	one required; check all that	apply)		Secondary Indicate	ators (minimum of tv	vo required)
Surface Water (A1)	\	Water-Stained Leaves (I	B9)	Surface Soi	il Cracks (B6)	
High Water Table (A2)	/	Aquatic Fauna (B13)		Drainage P	atterns (B10)	
Saturation (A3)	!	Marl Deposits (B15)		Moss Trim I	Lines (B16)	
Water Marks (B1)	۱	Hydrogen Sulfide Odor ((C1)	Dry-Seasor	n Water Table (C2)	
Sediment Deposits (B2)	(Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	[Presence of Reduced In	on (C4)	Saturation \	√isible on Aerial Ima	gery (C9)
Algal Mat or Crust (B4)		Recent Iron Reduction in	n Tilled Soils (C6)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)		Thin Muck Surface (C7)		Geomorphi	c Position (D2)	
Inundation Visible on Aerial	Imagery (B7)	Other (Explain in Remar	·ks)	Shallow Aq	uitard (D3)	
Sparsely Vegetated Concav	ve Surface (B8)			Microtopog	raphic Relief (D4)	
				FAC-Neutra	al Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	Depth (inches):				
Saturation Present?	Yes No X	Depth (inches):	Wetland Hyd	Irology Present?	Yes	No X
(includes capillary fringe)						
Describe Recorded Data (stream	n gauge, monitoring well, ae	erial photos, previous ins	spections), if available:			
Remarks: Report ID: 3U						

EGETATION - Use scientific names of plants.					Samı	oling Poin	t: 00	03-1U
Ггее Stratum (Plot size:30) I.	Absolute %Cover	Dominant Species?	Indicator Status	Dominance Test w Number of Dominar That Are OBL, FAC Total Number of Do	nt Species W, or FAC:		0	(A)
2.				Species Across All			1	_ (B)
1.				Percent of Dominar That Are OBL, FAC	· -		0.0	_ (A/B)
5. 7.				Prevalence Index v		M	ıltiply by:	
	0	_ = Total Cov	er	OBL species	0	x 1 =	0	
Sapling/Shrub Stratum (Plot size: 15)				FACW species	0	_	0	
1				· -	<u> </u>	x 2 = _		
2				FAC species	0	x 3 = _	0	
B				FACU species	0	x 4 = _	0 75	—
1				UPL species	15	x 5 = _	75	— <u>(C)</u>
5. 5.			-	Column Totals: Prevalence In	15 dex = B/A =	(A) _	75 5.0	(B)
7.				Hydrophytic Veget	ation Indica	ators:		
	0	_ = Total Cov	er	1 - Rapid Test			ation	
lerb Stratum (Plot size: 1 Sq. M.)				2 - Dominance		-		
. Setaria pumila ssp. pumila / Yellow foxtail, Yellow bristle gras		Yes		3 - Prevalence				
2. <u>Daucus carota</u> / Carrot, Carrot, Queen anne's lace	15	No	UPL	4 - Morphologic		ons (Provi	ide suppoi	rtina
3		_		Problematic Hy				-
1		_			ч. ор у ш о	-g-:a:	(=/\pi\a)	
5.				¹Indicators of hydric	soil and we	tland hyd	rology mu	et
S				be present, unless		-		51
3.				Definitions of Vege	etation Stra	ta		
9								
10 11		_		Tree - Woody plants breast height (DBH)				eter at
12.		= Total Cov		Sapling/shrub - Wo			3 in. DBH	and
Noody Vine Stratum (Plot size: 30)		_		greater than or equal Herb - All herbaceo size, and woody pla	us (non-woo	ody) plant	s, regardle all.	ess of
2				Woody vines - All v height.				t in
1.	0	= Total Cov	er	Hydrophytic Vegetation Present?	Yes	No	. X	
Remarks: (Explain alternative procedures here or in a separate	report.)			Present?	Yes	No	<u> X</u>	

SOIL Sampling Point: ____003-1U

Depth	Matrix			Features							
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks		
0-8	10YR 3/3	100			C		Loamy/Clayey				
8-20	2.5Y 5/4	100		- ——·							
ype: C=Con	ncentration, D=Depletio	n, RM=Redu	ced Matrix, MS=Mask	ed Sand Gra	ains.		²Locat	tion: PL=Pore L	ining, M=Matr	ix.	
rpe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. dric Soil Indicators:							Indicators	for Problemat	ic Hydric Soi	ls³:	
Histosol (A1) Polyvalue Below Surface (S8) (LRR R,MLRA							9B) 2 cm l	Muck (A10) (LF	RR K, L, MLR	A 149B)	
	pipedon (A2)		Thin Dark Surfa	` , `	,	A 149B)		Prairie Redox (, ,		
_ Black His	` '		Loamy Mucky M	. , .	LRR K, L)		5 cm Mucky Peat or Peat (S3) (LRR K, L, R)				
_ , ,	n Sulfide (A4)		Loamy Gleyed N	` '				Surface (S7) (L			
_	l Layers (A5)		Depleted Matrix	` '				alue Below Surf	, , ,		
	d Below Dark Surface (A11)	Redox Dark Sur	` ,			Thin Dark Surface (S9) (LRR K, L)				
_ Thick Da	ark Surface (A12)		Depleted Dark S	Surface (F7)			Iron-Manganese Masses (F12) (LRR K, L, R)				
_ Sandy M	lucky Mineral (S1)		Redox Depressi	ons (F8)			Piedm	ont Floodplain	Soils (F19) (N	ILRA 149B	
_ Sandy G	Sleyed Matrix (S4)						Mesic	Spodic (TA6)	(MLRA 144A,	, 145, 149E	
_ Sandy R	ledox (S5)						Red P	Parent Material (F21)		
Stripped	Matrix (S6)						Very S	Shallow Dark Sເ	ırface (TF12)		
_ Dark Sur	rface (S7) (LRR R, ML	RA 149B)					Other	(Explain in Ren	narks)		
ndicators of	hydrophytic vegetation	and wetland	hydrology must be pr	resent, unless	s disturbed	l or proble	matic.				
	ayer (if observed):										
Type: Depth (inc	ches):						Hydric Soil Pr	resent? Y	es	No X	
	· -									-	
emarks:											

Project/Site: Heritage Wind		City/County:	Orleans County	Sampling Date: 10/09/2019			
Applicant/Owner:	Heritage Wind, LLC (Apex	Clean Energy)	State: New	/ York Sampling Point: 003-1W			
Investigator(s): JM, JK		Section, Township, Ra	inge:	Town of Barre			
Landform (hillslope, terrace, etc):	Bowl-shaped depresssion Lo	ocal relief (concave, convex,	none): cond	cave Slope (%):Gentle (0-5%			
Subregion (LRR or MLRA): LRR I	L - Central Great Lakes Forests La	at: 43.181504	Long: -78	3.216933 Datum: WGS 1984			
Soil Map Unit Name:	Appleton s	silt loam	NWI cla	ssification: PEM			
Are climatic / hydrologic conditions	on the site typical for this time of ye	ear? Yes X No	(If no, explain in	Remarks.)			
Are Vegetation , Soil	, or Hydrologysignifi	icantly disturbed?	Are "Normal Circumstance	es" present? Yes X No			
	, or Hydrology natura		(If needed, explain any ans	swers in Remarks.)			
SUMMARY OF FINDINGS	- Attach site map showing	sampling point locati	ons, transects, impo	ortant features, etc.			
Hydrophytic Vegetation Present?	? Yes X No	Is the Sam	pled Area	·			
Hydric Soil Present?	Yes X No		•	s X No			
Wetland Hydrology Present?	Yes X No		onal Wetland Site ID:	003-1W			
Report ID: 3U	ocedures here or in a separate repo	ort.)					
HYDROLOGY							
Wetland Hydrology Indicators	:						
Primary Indicators (minimum of	one required; check all that apply)		Seconda	ry Indicators (minimum of two required)			
Surface Water (A1)	Water-S	tained Leaves (B9)	Surface Soil Cracks (B6)				
High Water Table (A2)	Aquatic	Fauna (B13)	Drainage Patterns (B10)				
Saturation (A3)	Marl De	posits (B15)	Moss Trim Lines (B16)				
Water Marks (B1)	Hydroge	en Sulfide Odor (C1)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)	Oxidized	d Rhizospheres on Living Roo	oots (C3) Crayfish Burrows (C8)				
Drift Deposits (B3)	Presenc	e of Reduced Iron (C4)	Sati	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Recent I	Iron Reduction in Tilled Soils	(C6) Stu	nted or Stressed Plants (D1)			
Iron Deposits (B5)	Thin Mu	ck Surface (C7)	X Geo	X Geomorphic Position (D2)			
Inundation Visible on Aerial	Imagery (B7) Other (E	Explain in Remarks)	Sha	ıllow Aquitard (D3)			
X Sparsely Vegetated Concav	/e Surface (B8)		Mic	rotopographic Relief (D4)			
			FAC	C-Neutral Test (D5)			
Field Observations:							
Surface Water Present?	Yes No X Depth	(inches):					
Water Table Present?		(inches):					
Saturation Present?		(inches):	Wetland Hydrology Pre	esent? Yes X No			
(includes capillary fringe)	·	` ,	,				
. , , , ,							
Describe Recorded Data (stream	n gauge, monitoring well, aerial pho	tos, previous inspections), if	available:				
Remarks:							

GETATION - Use scientific names of plants.				Sampling Point: 003-1W
ree Stratum (Plot size: <u>30</u>) . <i>Salix /</i> Willow	Absolute <u>%Cover</u> 25	Dominant Species? Yes	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A) Total Number of Dominant
Fraxinus pennsylvanica / Green ash	20	Yes	FACW	Species Across All Strata: 5 (B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0 (A/E
				Prevalence Index worksheet:
·	45	= Total Cov	er	Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size: 15)			0.	OBL species 35 x 1 = 35
Fraxinus pennsylvanica / Green ash	20	Yes	FACW	FACW species 40 x 2 = 80
				FAC species 0 x 3 = 0
				FACU species 0 x 4 = 0
	20 Yes FACW FACW FACW FACW FACW FACW species 40 x 2 = 80			
				Column Totals: 75 (A) 115 (E
			<u> </u>	Prevalence Index = B/A = 1.53
erb Stratum (Plot size: 1 Sq. M.) Leersia oryzoides / Rice cutgrass Symphyotrichum / Aster	35 10	Yes Yes	OBL	1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.0¹ 4 - Morphological Adaptations (Provide supporting
D				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2.		= Total Cov		Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
/oody Vine Stratum (Plot size:30)		_		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.
	0	= Total Cov	er	Hydrophytic Vegetation

SOIL Sampling Point: ____003-1W

Profile Desc	ription: (Describe to the	ne depth ne		e indicator	or confirm	the abse	ence of indicators	s.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	- Texture	Remarks
0-5	10yr 3/2	100	Color (moist)	70	Турс		Loamy/Clayey	Remarks
5-18	10yr 6/1	90	2.5yr 6/6	10		M	Loamy/Clayey	
-	· · · · · · · · · · · · · · · · · · ·		-				-	
	, -						· · · · · · · · · · · · · · · · · · ·	
							· ·	
							· ·	
							<u> </u>	
			-					
¹Type: C=Co	ncentration, D=Depletio	n, RM=Redi	uced Matrix, MS=Mask	ced Sand Gr	ains.		²Loca	tion: PL=Pore Lining, M=Matrix.
Black H Hydroge Stratifier Deplete Thick Do Sandy N Sandy C Strippec Dark Su		.RA 149B)	Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed N X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR dineral (F1) Matrix (F2) (F3) face (F6) surface (F7) ons (F8)	R R, MLRA (LRR K, L)	A 149B)	9B) 2 cm Coast 5 cm Dark \$ Polyv Thin [Iron-M Piedm Mesic Red F Very \$ Other	in for Problematic Hydric Soils ³ : Muck (A10) (LRR K, L, MLRA 149B) It Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) alue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R) mont Floodplain Soils (F19) (MLRA 149B) It Spodic (TA6) (MLRA 144A, 145, 149B) Parent Material (F21) Shallow Dark Surface (TF12) ((Explain in Remarks)
Restrictive L	Layer (if observed):							
Depth (in	nches):						Hydric Soil Pi	resent? Yes X No
Remarks:							•	

Project/Site:	Heritage Wind	City/Cour	nty: Orleans (County	Sampling Date:	10/10/2019
Applicant/Owner:	Heritage Wind, LL			State: New York	Sampling Point:	005-1U
Investigator(s):	JM JK	Section,	Township, Range:	Tc	wn of Barre	
Landform (hillslope, terrace, etc):	Flat	Local relief (conca	ave, convex, none):	none	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR L	- Central Great Lakes For	ests Lat: 43	.146742 Long:	-78.16804	5 Datum	: WGS 1984
Soil Map Unit Name:		Bergen muck		NWI classificati	on:	
Are climatic / hydrologic conditions	on the site typical for this ti	me of year? Yes>	K No (If n	o, explain in Remarl	(s.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbed	l? Are "Normal C	circumstances" prese	ent? Yes X	No
Are Vegetation, Soil				plain any answers in	Remarks.)	
SUMMARY OF FINDINGS -	Attach site map sho	owing sampling po	oint locations, transe	ects, important	features, etc.	
Hydrophytic Vegetation Present?	Yes	No X	Is the Sampled Area			
Hydric Soil Present?	Yes X	No	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland S	ite ID:	005	
Remarks: (Explain alternative pro Upland data point fo Report ID: 3S	ocedures here or in a separ or wetland 005 near flag 1	rate report.)				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of o	ne required; check all that	apply)		Secondary Indic	ators (minimum of tv	vo required)
Surface Water (A1)		Water-Stained Leaves (B9)	Surface So	il Cracks (B6)	
High Water Table (A2)		Aquatic Fauna (B13)		Drainage P	atterns (B10)	
Saturation (A3)	!	Marl Deposits (B15)		Moss Trim I	Lines (B16)	
Water Marks (B1)		Hydrogen Sulfide Odor	` '	Dry-Seasor	n Water Table (C2)	
Sediment Deposits (B2)	on Living Roots (C3)	Crayfish Bu	rrows (C8)			
Drift Deposits (B3)	!	Presence of Reduced In	on (C4)	Saturation \	√isible on Aerial Ima	gery (C9)
Algal Mat or Crust (B4)	!	Recent Iron Reduction is	n Tilled Soils (C6)	Stunted or	Stressed Plants (D1))
Iron Deposits (B5)		Thin Muck Surface (C7)		Geomorphi	c Position (D2)	
Inundation Visible on Aerial	Imagery (B7)	Other (Explain in Remai	rks)	Shallow Aq	uitard (D3)	
Sparsely Vegetated Concav	e Surface (B8)			Microtopog	raphic Relief (D4)	
				FAC-Neutra	al Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	Depth (inches):				
Saturation Present?	Yes No X	Depth (inches):	Wetland Hy	drology Present?	Yes	No X
(includes capillary fringe)						
Describe Recorded Data (stream	gauge, monitoring well, as	erial photos, previous ins	spections), if available:			
Remarks: Corn is stunted and	dead while wetland vegeta	ation thrives				

			Sampling Point:005-1U				
Absolute %Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 2 (B				
			Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A				
			Prevalence Index worksheet:				
0	_ = Total Cov	er	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 25 x 4 = 100				
_	-		UPL species 0 x 5 = 0				
			Column Totals: 25 (A) 100				
			Prevalence Index = B/A = 4.0				
	= Total Cov	er	Hydrophytic Vegetation Indicators:				
		·.	1 - Rapid Test for Hydrophytic Vegetation				
60	V		2 - Dominance Test is >50%				
			- 3 - Prevalence Index ≤3.0¹				
			4 - Morphological Adaptations (Provide supporting				
5	No	FACU	Problematic Hydrophytic Vegetation¹ (Explain)				
	-						
		<u> </u>	¹Indicators 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 a breast height (DBH), regardless of height.				
			Sapling/shrub - Woody plants less than 3 in. DBH and				
85	_ = Total Cov	er	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.				
0	= Total Cov	er	Hydrophytic Vegetation				
	%Cover 0 0 0 60 20 5 5 85	Cover Species?	%Cover Species? Status 0 = Total Cover 0 = Total Cover 60 Yes 20 Yes FACU 5 No FACU 85 = Total Cover				

SOIL Sampling Point: 005-1U

Depth	Matrix		Redox	k Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-20	2.5Y 2.5/1	100					Muck	
20-30	10Y 5/1	70	7.5YR 5/6	30	C	M	Loamy/Clayey	Thick layer of black muck
vne: C=Co	ncentration, D=Depletic	ın RM=Redi	uced Matrix MS=Mas	ked Sand Gr	ains		21 oca	tion: PL=Pore Lining, M=Matrix.
ydric Soil I		,	acca manx, me mac	nou curiu cir				for Problematic Hydric Soils³:
X Black Hi Hydroge Stratified Depleted Thick Da Sandy N Sandy C Sandy F Stripped	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) d Below Dark Surface (A2) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR R, ML	,	Polyvalue Belov Thin Dark Surfa Loamy Mucky M Loamy Gleyed I Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depress	ce (S9) (LR dineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7)	R R, MLRA	A 149B)	Coast 5 cm Dark Polyv Thin I Iron-N Piedn Mesic Red F	Muck (A10) (LRR K, L, MLRA 149B) t Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) alue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R) nont Floodplain Soils (F19) (MLRA 149B E Spodic (TA6) (MLRA 144A, 145, 149B Parent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
	f hydrophytic vegetation	and wetland	d hydrology must be p	resent, unles	s disturbed	l or proble	matic.	
Type:	_ayer (II ODServed):							
	nches):						Hydric Soil P	resent? Yes X No
Depth (in	· —							

Project/Site:	Heritage Wind	City/Coun	nty: Orleans	County	Sampling Date:	10/10/2019
Applicant/Owner:	Heritage Wind, LLC (A		· —	State: New York		005-1W
Investigator(s):	JM JK		Township, Range:		wn of Barre	
Landform (hillslope, terrace, etc):			ave, convex, none):	none	Slope (%):Gentle (0-5%
Subregion (LRR or MLRA): LRR L		-		-78.16782	B Datum:	WGS 1984
Soil Map Unit Name:		gen muck		NWI classification	on: Pl	EM
Are climatic / hydrologic conditions	on the site typical for this time	of year? Yes X	(No (If	 no, explain in Remark	(s.)	
Are Vegetation , Soil	, or Hydrologysi	ignificantly disturbed	? Are "Normal	Circumstances" prese	ent? Yes X	No
Are Vegetation , Soil				xplain any answers in	Remarks.)	
SUMMARY OF FINDINGS -	Attach site map showi	ng sampling po	oint locations, trans	sects, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	·	Is the Sampled Area			
Hydric Soil Present?			within a Wetland?	Yes X	No	
Wetland Hydrology Present?			If yes, optional Wetland		005	
Report ID: 3S	ocedures here or in a separate wetland 005 near flag 1	report.)				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of o	ne required; check all that app	ly)		Secondary Indica	ators (minimum of tw	o required)
Surface Water (A1)	Wat	er-Stained Leaves (E	B9)	Surface Soi	l Cracks (B6)	
High Water Table (A2)	Aqu	atic Fauna (B13)		Drainage Pa	atterns (B10)	
Saturation (A3)	Mar	Deposits (B15)		Moss Trim L	₋ines (B16)	
Water Marks (B1)	Hyd	rogen Sulfide Odor ((C1)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)		-	on Living Roots (C3)	Crayfish Bu	` '	
Drift Deposits (B3)	Pres	sence of Reduced Iron	on (C4)	Saturation \	/isible on Aerial Imag	gery (C9)
Algal Mat or Crust (B4)	Rec	ent Iron Reduction ir	n Tilled Soils (C6)	X Stunted or S	Stressed Plants (D1)	
Iron Deposits (B5)		Muck Surface (C7)		X Geomorphic	` '	
Inundation Visible on Aerial	Imagery (B7) Othe	er (Explain in Remar	·ks)	Shallow Aqı	uitard (D3)	
Sparsely Vegetated Concav	e Surface (B8)				aphic Relief (D4)	
				X FAC-Neutra	l Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X De	pth (inches):				
Water Table Present?	Yes No X De	pth (inches):				
Saturation Present?	Yes No X De	pth (inches):	Wetland F	lydrology Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Data (stream	gauge, monitoring well, aerial	photos, previous ins	spections), if available:			
Remarks: Corn is stunted and	dead while wetland vegetation	thrives				

Absolute %Cover	Dominant Species?	Indicator Status	Dominance Test workshe Number of Dominant Spec That Are OBL, FACW, or F	ies	2	(A)	
			Total Number of Dominant				
	_		Species Across All Strata:	_	3 66.7 Multiply by: = 60 = 0 = 0 = 0 1.0 Strength of the supporting at inches the supporting	(B)	
			Percent of Dominant Species That Are OBL, FACW, or FAC:		66.7	(A/B)	
			Prevalence Index worksh	eet:			
0	= Total Cov	er	Total % Cover of:		Multiply by:		
	-		OBL species 60	x 1 =	÷60		
			FACW species 0	x 2 =	:0		
	_	-	FAC species 0	x 3 =	:0		
	-	-	FACU species 0	x 4 =	:0		
			UPL species 0	x 5 =	<u> </u>		
			Column Totals: 60	(A)	60	(B	
	-		Prevalence Index = F	3/A =	1.0		
			Hydronhytic Vegetation I	ndicators:			
0	_ = Total Cove	er			getation		
					getation		
30	Yes						
30	Yes	OBL			rovide suppo	rtina	
30	Yes	OBL				•	
						st	
			Definitions of Vegetation	Strata			
	_					eter at	
	- Total Cav					and	
	_		Herb - All herbaceous (nor	n-woody) pla	ants, regardle	ess of	
			Woody vines - All woody wheight.	∕ines greate	er than 3.28 ft	t in	
0	= Total Cove	er	Hydrophytic Vegetation Present? Yes	X	No		
	0 30 30 30 90	0 = Total Cove 30 Yes 30 Yes 30 Yes 90 = Total Cove 0 = Total Cove	0 = Total Cover 30 Yes 30 Yes OBL 30 Yes OBL 90 = Total Cover	Percent of Dominant Speci That Are OBL, FACW, or FA Prevalence Index worksh Total % Cover of: OBL species 60 FACW species 0 FAC species 0 FAC species 0 UPL species 0 UPL species 0 Column Totals: 60 Prevalence Index = E Hydrophytic Vegetation II 1 - Rapid Test for Hydi X 2 - Dominance Test is 3 - Prevalence Index = E Hydrophytic Vegetation II 1 - Rapid Test for Hydi X 2 - Dominance Test is 3 - Prevalence Index = E Hydrophytic Vegetation II 1 - Rapid Test for Hydi X 2 - Dominance Test is 3 - Prevalence Index = E Hydrophytic Vegetation II 1 - Rapid Test for Hydi X 2 - Dominance Test is 3 - Prevalence Index = E Hydrophytic Vegetation II 1 - Rapid Test for Hydi X 2 - Dominance Test is 3 - Prevalence Index = S 4 - Morphological Ada Problematic Hydrophyti Undicators of hydric soil and be present, unless disturbed Definitions of Vegetation Tree - Woody plants 3 in. (' breast height (DBH), regard Sapling/shrub - Woody plants as in. (' breast height (DBH), regard Sapling/shrub - Woody plants as in. (' breast height (DBH), regard Sapling/shrub - Woody plants as in. (' breast height (DBH), regard Sapling/shrub - Woody plants as in. (' breast height (DBH), regard Sapling/shrub - Woody plants as in. (' breast height (DBH), regard Sapling/shrub - Woody plants as in. (' breast height (DBH), regard Sapling/shrub - Woody plants as in. (' breast height (DBH), regard Sapling/shrub - Woody plants as in. (' breast height (DBH), regard Sapling/shrub - Woody plants as in. (' breast height (DBH), regard Sapling/shrub - Woody plants as in. (' breast height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH), regard Breast Height (DBH)	Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: OBL species 60 x1 = FACW species 0 x3 = FACU species 0 x4 = UPL species 0 x5 = Column Totals: 60 (A) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Veg X 2 - Dominance Test is >50% 30 Yes OBL Yes OBL The All hydrophytic soil and wetland he present, unless disturbed or proble Definitions of Vegetation Strata Tree - Woody plants 3 in. (7.6 cm) or reast height (DBH), regardless of height Sapling/shrub - Woody plants less the greater than or equal to 3.28 ft (1 m) te Herb - All herbaceous (non-woody) plasize, and woody vines greater height. O = Total Cover Hydrophytic Vegetation	Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 60 x 1 = 60 FACW species 0 x 2 = 0 FAC species 0 x 3 = 0 FAC species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 60 (A) 60 Prevalence Index = B/A = 1.0 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index ≤ 3.0¹ 4 - Morphological Adaptations (Provide support Problematic Hydrophytic Vegetation¹ (Explain) 1 'Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic. Definitions of Vegetation Strata Tree - Woody plants 3 in. (7.6 cm) or more in diambreast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardle size, and woody vines greater than 3.28 ft height. Woody vines - All woody vines greater than 3.28 ft height. Hydrophytic Vegetation	

SOIL Sampling Point: 005-1W

Depth	Matrix		Redox	k Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-20	2.5Y 2.5/1	100					Muck	
20-30	10Y 5/1	70	7.5YR 5/6	30	С	М	Loamy/Clayey	Thick layer of black muck
Гуре: С=Сог	ncentration, D=Depletio	n, RM=Redu	uced Matrix, MS=Mas	ked Sand Gra	ains.		²Loca	tion: PL=Pore Lining, M=Matrix.
X Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped	(A1) pipedon (A2)	·	Polyvalue Belov Thin Dark Surfa Loamy Mucky N Loamy Gleyed I Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depress	ce (S9) (LR) fineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7)	R R, MLRA	A 149B)	9B) 2 cm Coasi 5 cm Dark Polyv Thin I Iron-N Piedn Mesic Red F Very 5	ifor Problematic Hydric Soils*: Muck (A10) (LRR K, L, MLRA 149B) t Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) alue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R) nont Floodplain Soils (F19) (MLRA 149B) Parent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
	hydrophytic vegetation .ayer (if observed):	and wetland	d hydrology must be p	resent, unles	s disturbed	l or proble	matic.	
Type: Depth (in	ches):		<u></u>				Hydric Soil P	resent? Yes X No

Project/Site:	Heritage Wind	City/County	y: Orleans Co	unty	Sampling Date:	10/10/2019		
Applicant/Owner:	Heritage Wind, L	LC (Apex Clean Energy)	Sta	ite: New York	Sampling Point:	007-1U		
Investigator(s):	JM JK	Section, To	wnship, Range:		wn of Barre			
Landform (hillslope, terrace, etc):	Saddle		e, convex, none):	convex	Slope	(%):Gentle (0-5%		
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Fo	orests Lat: 43.14	46654 Long:	-78.16348	6 Datum	n: WGS 1984		
Soil Map Unit Name:		Canandaigua soil		NWI classification	on:			
Are climatic / hydrologic conditions	on the site typical for this	time of year? Yes X	No (If no,	explain in Remark	s.)			
Are Vegetation, Soil	, or Hydrology	significantly disturbed?	Are "Normal Circ	umstances" prese	ent? Yes X	K No		
Are Vegetation, Soil	, or Hydrology	naturally problematic?		in any answers in	Remarks.)			
SUMMARY OF FINDINGS	- Attach site map sl	nowing sampling poi	int locations, transec	ts, important	features, etc.			
Hydrophytic Vegetation Present	? Yes X	No	Is the Sampled Area					
Hydric Soil Present?	Yes	No X	within a Wetland?	Yes	No X			
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site			<u> </u>		
Remarks: (Explain alternative pr Upland point for Pf Report ID:3T		arate report.)						
HYDROLOGY								
Wetland Hydrology Indicators	:							
Primary Indicators (minimum of	one required; check all tha	at apply)		Secondary Indica	ators (minimum of t	wo required)		
Surface Water (A1)		Water-Stained Leaves (BS	9)	Surface Soil Cracks (B6)				
High Water Table (A2)		Aquatic Fauna (B13)		Drainage Patterns (B10)				
Saturation (A3)		Marl Deposits (B15)		Moss Trim Lines (B16)				
Water Marks (B1)		Hydrogen Sulfide Odor (C	C1)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Oxidized Rhizospheres or	n Living Roots (C3)	ots (C3) Crayfish Burrows (C8)				
Drift Deposits (B3)		Presence of Reduced Iron	n (C4)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)		Recent Iron Reduction in	Tilled Soils (C6)	Stunted or S	Stressed Plants (D1)		
Iron Deposits (B5)		Thin Muck Surface (C7)		Geomorphic	Position (D2)			
Inundation Visible on Aeria	Imagery (B7)	Other (Explain in Remarks	s)	Shallow Aqu	uitard (D3)			
Sparsely Vegetated Concar	ve Surface (B8)			Microtopogr	aphic Relief (D4)			
				FAC-Neutra	l Test (D5)			
Field Observations:								
Surface Water Present?	Yes No X	Depth (inches):						
Water Table Present?	Yes No X	Depth (inches):						
Saturation Present?	Yes No X	Depth (inches):	Wetland Hydi	ology Present?	Yes	No X		
(includes capillary fringe)						<u> </u>		
Describe Recorded Data (stream	n gauge, monitoring well,	aerial photos, previous insp	ections), if available:					
Remarks:								
. Smarro.								

				Dominance Test worksheet:			
ee Stratum (Plot size: 30) 9	Absolute %Cover	Dominant Species?	Indicator Status	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant		1	_ (A)
		_		Species Across All Strata:		2	_ (B)
		-		Percent of Dominant Species That Are OBL, FACW, or FAC:		50.0	_ (A/B)
				Prevalence Index worksheet:			
	0	= Total Cov	er	Total % Cover of:	Mu	Itiply by:	
oling/Shrub Stratum (Plot size: 15)		=		OBL species 0	x 1 =	0	
·				FACW species100	x 2 =	200	
				FAC species 0	x 3 =	0	
				FACU species 0	x 4 =	0	
				UPL species 40	ninant Species FACW, or FAC: 50.0 (A/E dex worksheet: 0		
	Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 That Are OBL, FACW, or FAC: 50.0	(B					
				Prevalence Index = B/A =		2.86	
	-		er				
rb Stratum (Plot size: 1 Sq. M.)		-			_	ation	
Phalaris arundinacea / Reed canarygrass, Reed canary gras	100	Yes	FACW)		
Asclepias syriaca / Common milkweed		-,					
		-			•		ting
				Problematic Hydrophytic Ve	getation¹	(Explain)	
				¹ Indicators of hydric soil and wetl	and hydr	ology mus	st
				be present, unless disturbed or p	roblemat	ic.	
				Definitions of Vegetation Strata	a		
		_					ter at
				Sapling/shrub - Woody plants le	ess than :	3 in. DBH	and
		= Total Cov	er				
ody Vine Stratum (Plot size:)		_		Herb - All herbaceous (non-wood size, and woody plants less than	dy) plants 3.28 ft ta	s, regardle all.	ss of
				Woody vines - All woody vines of	greater th	an 3.28 ft	in
		- :		height.	-		
		_,					
	0	_ = Total Cov	er	Hydrophytic Vegetation Present? Yes X	No		
				Present? Yes X	No		

SOIL Sampling Point: _____007-1U

	iption: (Describe to th	ne depth ne			or confirm	the abse	ence of indicators	s.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	Features %	Type ¹	Loc²	- Texture	Remarks
0-12	10YR 3/3	100	Color (moist)		Туре		Texture	Remarks
12-18	10YR 3/3	85	7.5YR 4/6	15		M	Loamy/Clayey	
							<u> </u>	
								
				. ——				
			_				-	
				· 				
¹Type: C=Cor	centration, D=Depletio	n, RM=Redu	uced Matrix, MS=Mask	ed Sand Gr	ains.		²Locat	tion: PL=Pore Lining, M=Matrix.
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) ipedon (A2) stic (A3) n Sulfide (A4) Layers (A5) I Below Dark Surface (A irk Surface (A12) lucky Mineral (S1) leyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, ML hydrophytic vegetation	.RA 149B)	Polyvalue Below Thin Dark Surfact Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Surfact Depleted Dark S Redox Depression	ce (S9) (LR ineral (F1) Matrix (F2) (F3) face (F6) urface (F7) ons (F8)	R R, MLRA (LRR K, L)	A 149B)	9B) 2 cm M Coast 5 cm M Dark S Polyva Thin D Iron-M Piedm Mesic Red P Very S Other	for Problematic Hydric Soils³: Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) alue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) Innganese Masses (F12) (LRR K, L, R) nont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B) Parent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Type:	ayer (if observed):						Hydric Soil Pr	resent? Yes No _X
20011 (1111	/-		<u> </u>				1,,	
Remarks:								

Project/Site:	Heritage Wind	City/County:	Orleans County	Sampling Date: 10/10/2019			
Applicant/Owner:	Heritage Wind, LLC (Apex	Clean Energy)	State: New York	Sampling Point: 007-1W			
Investigator(s):	JK JM	Section, Township, R		Town of Barre			
Landform (hillslope, terrace, etc):	Bowl-shaped depresssion Lo	cal relief (concave, convex,	none): concave	Slope (%):Gentle (0-5%			
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Forests La	t: 43.147081	Long: -78.162	982 Datum: WGS 1984			
Soil Map Unit Name:	Canandaig	ua soils	NWI classific	ation: PFO			
Are climatic / hydrologic conditions	on the site typical for this time of ye	ar? Yes X No	(If no, explain in Rem	arks.)			
Are Vegetation, Soil	, or Hydrologysignific	cantly disturbed?	Are "Normal Circumstances" pr	esent? Yes X No			
Are Vegetation, Soil	, or Hydrologynatura	illy problematic?	(If needed, explain any answers	s in Remarks.)			
SUMMARY OF FINDINGS	- Attach site map showing s	sampling point locat	ions, transects, importa	nt features, etc.			
Hydrophytic Vegetation Present	? Yes X No	Is the San	npled Area				
Hydric Soil Present?	Yes X No	within a V	Vetland? Yes	X No			
Wetland Hydrology Present?	Yes X No	If yes, opti	onal Wetland Site ID:	007			
Remarks: (Explain alternative pr PFO datapoint for Report ID: 3T	rocedures here or in a separate repo wetland 007	rt.)					
HYDROLOGY							
Wetland Hydrology Indicators	:						
Primary Indicators (minimum of	one required; check all that apply)		Secondary In	dicators (minimum of two required)			
Surface Water (A1)	Water-St	ained Leaves (B9)	Surface	Soil Cracks (B6)			
High Water Table (A2)	Aquatic F	Fauna (B13)	Drainage	Drainage Patterns (B10)			
Saturation (A3)	Marl Dep	oosits (B15)	Moss Tri	m Lines (B16)			
Water Marks (B1)	Hydroger	n Sulfide Odor (C1)	Dry-Sea	son Water Table (C2)			
Sediment Deposits (B2)	Oxidized	Rhizospheres on Living Ro	oots (C3) Crayfish	Burrows (C8)			
Drift Deposits (B3)	Presence	e of Reduced Iron (C4)	Saturation	on Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Recent II	ron Reduction in Tilled Soils	S (C6) Stunted	or Stressed Plants (D1)			
Iron Deposits (B5)	Thin Muc	ck Surface (C7)	X Geomor	phic Position (D2)			
Inundation Visible on Aeria	I Imagery (B7) Other (Ex	xplain in Remarks)	Shallow	Aquitard (D3)			
Sparsely Vegetated Concar	ve Surface (B8)		Microtop	ographic Relief (D4)			
			X FAC-Net	utral Test (D5)			
Field Observations:							
Surface Water Present?	Yes No X Depth (inches):					
Water Table Present?	Yes No X Depth (inches):					
Saturation Present?	Yes No X Depth (inches):	Wetland Hydrology Presen	t? Yes X No			
(includes capillary fringe)							
Describe Recorded Data (strear	n gauge, monitoring well, aerial phot	os, previous inspections), if	f available:				
Remarks:							

SETATION - Use scientific names of plants.				1	Samp	ling Poir	nt: 00	7-1W
				Dominance Test v	vorksheet:			
				Number of Domina	int Species			
	Absolute	Dominant	Indicator	That Are OBL, FAC	CW, or FAC:		6	(A)
ee Stratum (Plot size:)	%Cover	Species?	Status					
Acer saccharinum / Silver maple	50	Yes	FACW	Total Number of Do	ominant			
Ulmus americana / American elm	20	Yes	FACW	Species Across All	Strata:		7	(B)
Fraxinus pennsylvanica / Green ash	20	Yes	FACW					
				Percent of Domina	nt Species			
				That Are OBL, FAC	CW, or FAC:		85.7	_ (A/B
				Prevalence Index	worksheet:			
	90	= Total Cove		Total % Cove	r of:	М	ultiply by:	
pling/Shrub Stratum (Plot size: 15)		_ = 10tal Cove	7 1	OBL species	0	x 1 =	0	
Fraxinus pennsylvanica / Green ash	30	Yes	FACW	FACW species	140	x 2 =	280	
Ulmus americana / American elm	<u></u>	Yes	FACW	FAC species	0	x 3 =	0	
Olinus americana i American emi			TACV	FACU species	0	x 4 =	0	
				UPL species	0	x 5 =	0	
				Column Totals:	140	(A)	280	(E
		_ (Prevalence I	ndex = B/A =		2.0	`
				Hydrophytic Vege	station Indica	tore:		
	45	_ = Total Cove	er	1 - Rapid Test			tation	
rb Stratum (Plot size: 1 Sq. M.)				X 2 - Dominance			lalion	
Polygonum virginianum / Jumpseed	5	Yes		3 - Prevalence)		
Geum laciniatum / Rough avens	5	Yes	FACW	4 - Morpholog		ne (Prov	ida suppor	tina
				Problematic H	-	•		-
				Problematic H	iyaropriyiic ve	getation	(Explain)	
				¹Indicators of hydri	c soil and wet	land hyd	Irology mus	et
				be present, unless		•	٠.	
				Definitions of Ven				
				Definitions of Veg	etation Strat	а		
		<u> </u>		Tree - Woody plant	ts 3 in 7 6 cm	n) or mo	re in diame	eter at
-				breast height (DBH				ut
•				Sapling/shrub - W				and
	10	_ = Total Cove	er	greater than or equ	ıal to 3.28 ft (<i>′</i>	l m) tall.		
oody Vine Stratum (Plot size:30)				Herb - All herbaced size, and woody placed				ess of
				Woody vines - All				t in
				height.	Woody Villoo	groutor t	11011 0.20 1	
		T-4-1 C		I budua mbustia				
	U	_ = Total Cove	er	Hydrophytic				
				Vegetation				

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 007-1W

Depth	Matrix		Redox	r Features			_	
(inches)	Color (moist)	%	Color (moist)	<u></u> %	Type ¹	Loc²	Texture	Remarks
0-8	2.5Y 2.5/1	100					Mucky Loam/C	
8-16	10YR 5/1	75	7.5YR 5/6	25	C	M	Loamy/Clayey	
ype: C=Cor	ncentration, D=Depletio	n, RM=Red	uced Matrix, MS=Masl	ced Sand Gr	ains.		²Location: PL	=Pore Lining, M=Matrix.
Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped	(A1) pipedon (A2)	,	Polyvalue Belov Thin Dark Surfa Loamy Mucky M Loamy Gleyed M X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR flineral (F1) Matrix (F2) (F3) face (F6) Surface (F7)	R R, MLR	A 149B)	2 cm Muck (A Coast Prairie 5 cm Mucky F Dark Surface Polyvalue Be Thin Dark Su Iron-Mangane Piedmont Flo Mesic Spodic Red Parent M Very Shallow	oblematic Hydric Soils*: k10) (LRR K, L, MLRA 149B) Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) (S7) (LRR K, L) low Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, R) odplain Soils (F19) (MLRA 149B (TA6) (MLRA 144A, 145, 149B Material (F21) Dark Surface (TF12) In in Remarks)
	hydrophytic vegetation ayer (if observed):	and wetland	d hydrology must be p	resent, unles	ss disturbed	d or proble	matic.	
Depth (in	ches):						Hydric Soil Present?	Yes X No
		-	· · · · · · · · · · · · · · · · · · ·	-				

Project/Site:	Heritage Wind	City/County	y: Orleans Co	unty	Sampling Date:	10/10/2019		
Applicant/Owner:	Heritage Wind,	LLC (Apex Clean Energy)	Sta	ate: New York	Sampling Point:	010-1U		
Investigator(s):	JM, JK	Section, To	wnship, Range:		wn of Barre			
Landform (hillslope, terrace, etc):		Local relief (concav	re, convex, none):	concave	Slope	(%):Gentle (0-5%		
Subregion (LRR or MLRA): LRR	L - Central Great Lakes F	Forests Lat: 43.1	67112 Long:	-78.14163	9 Datum	n: WGS 1984		
Soil Map Unit Name:		Appleton silt loam		NWI classification	on:			
Are climatic / hydrologic condition	s on the site typical for thi	s time of year? Yes X	No (If no,	explain in Remark	s.)			
Are Vegetation, Soil	, or Hydrology	significantly disturbed?	Are "Normal Circ	cumstances" prese	ent? Yes >	K No		
Are Vegetation, Soil	, or Hydrology	naturally problematic?		ain any answers in	Remarks.)			
SUMMARY OF FINDINGS	- Attach site map s	howing sampling poi	int locations, transec	ts, important	features, etc.			
Hydrophytic Vegetation Present	? Yes	No X	Is the Sampled Area					
Hydric Soil Present?	Yes	No X	within a Wetland?	Yes	No X			
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site					
Remarks: (Explain alternative p Report ID: 3P	rocedures here or in a se	parate report.)						
HYDROLOGY								
Wetland Hydrology Indicators	s:							
Primary Indicators (minimum of	one required; check all th	at apply)		Secondary Indica	ators (minimum of t	wo required)		
Surface Water (A1)		Water-Stained Leaves (BS	9)	Surface Soi	l Cracks (B6)			
High Water Table (A2)		Aquatic Fauna (B13)		Drainage Patterns (B10)				
Saturation (A3)		Marl Deposits (B15)		Moss Trim L	ines (B16)			
Water Marks (B1)		Hydrogen Sulfide Odor (C	C1)	Dry-Season	Water Table (C2)			
Sediment Deposits (B2)		Oxidized Rhizospheres or	n Living Roots (C3)	Crayfish Bu	rrows (C8)			
Drift Deposits (B3)		Presence of Reduced Iron	n (C4)	Saturation \	/isible on Aerial Ima	agery (C9)		
Algal Mat or Crust (B4)		Recent Iron Reduction in	Tilled Soils (C6)	Stunted or S	Stressed Plants (D1	1)		
Iron Deposits (B5)		Thin Muck Surface (C7)		Geomorphic	Position (D2)			
Inundation Visible on Aeria	al Imagery (B7)	Other (Explain in Remark	s)	Shallow Aqu	uitard (D3)			
Sparsely Vegetated Conca	ve Surface (B8)			Microtopogr	aphic Relief (D4)			
				FAC-Neutra	l Test (D5)			
Field Observations:								
Surface Water Present?	Yes No X	Depth (inches):						
Water Table Present?	Yes No X	Depth (inches):						
Saturation Present?	Yes No X	Depth (inches):	Wetland Hyd	rology Present?	Yes	No X		
(includes capillary fringe)						· 		
D 11 D 1 1 D 1 1 1								
Describe Recorded Data (strea	m gauge, monitoring well,	aerial photos, previous insp	ections), if available:					
Remarks:								
nomains.								

EGETATION - Use scientific names of plants.					Samp	ling Poir	nt: 01	0-1U
Tree Stratum (Plot size:30) 1.	Absolute %Cover	Dominant Species?	Indicator Status	Dominance Test wor Number of Dominant That Are OBL, FACW	Species , or FAC:		0	_ (A)
2				Species Across All St	rata:		2	_ (B)
4.		_		Percent of Dominant S That Are OBL, FACW	•		0.0	_ (A/B)
7.				Prevalence Index wo		M	ultiply by:	
	0	_ = Total Cov	er				ultiply by:	
Sapling/Shrub Stratum (Plot size: 15)				OBL species	0	x 1 = _	0	
1				FACW species	0	x 2 = _	0	
2.				FAC species	0	x 3 = _	0	
3.				FACU species	30	x 4 = _	120	
1				UPL species	0	x 5 =	0	
1			-	Column Totals:	30	(A)	120	(B)
3.				Prevalence Inde	ex = B/A =		4.0	` ′
7.				Hydrophytic Vegetat	ion Indica	itors:		
	0	_ = Total Cov	er	1 - Rapid Test for			tation	
Herb Stratum (Plot size: 1 Sq. M.)				2 - Dominance Te		_		
1. Zea mays / Corn	60	Yes	_,,	3 - Prevalence In		O		
2. Ambrosia artemisiifolia / Annual ragweed, Common ragweed	30	Yes	FACU			(D		4
3. 4.				4 - Morphologica Problematic Hydi	-	•		ung
5				¹Indicators of hydric so be present, unless dis				st .
7				Definitions of Vegeta	ation Strat	a		
9				Tree - Woody plants 3 breast height (DBH), r				ter at
12	90	= Total Cov	er	Sapling/shrub - Woo greater than or equal				and
Woody Vine Stratum (Plot size:30) 1		_		Herb - All herbaceous size, and woody plant	(non-woo	dy) plan	ts, regardle	ss of
2				Woody vines - All wo height.	ody vines	greater t	than 3.28 ft	in
4	0	= Total Cov	er	Hydrophytic Vegetation Present?	Yes	No	o	
Remarks: (Explain alternative procedures here or in a separate	report.)							

SOIL Sampling Point: 010-1U

Depth	Matrix		Redox	x Features				
(inches)	Color (moist)	%	Color (moist)	% Type¹	Loc²	Texture	Remarks	
0-8	10YR 3/2	100				Loamy/Clayey		
8-18	5yr 5/6	50				Loamy/Clayey		
8-18	10YR 3/2	50				Loamy/Clayey		
ſype: C=Cor	ncentration, D=Depletio	n, RM=Redu	uced Matrix, MS=Mas	ked Sand Grains.		²Location: P	L=Pore Lining, M=Ma	trix.
Black His Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	oipedon (A2)	.RA 149B)	Thin Dark Surfa Loamy Mucky M Loamy Gleyed I Depleted Matrix Redox Dark Sur Depleted Dark Sur Redox Depress	(F3) rface (F6) Surface (F7) ions (F8)	A 149B))	Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark Se Iron-Mangar Piedmont Fl Mesic Spodi Red Parent Very Shallov Other (Explain	A10) (LRR K, L, MLI e Redox (A16) (LRR Peat or Peat (S3) (Le (S7) (LRR K, L) elow Surface (S8) (L urface (S9) (LRR K, nese Masses (F12) (n nodplain Soils (F19) (n not (TA6) (MLRA 144) Material (F21) v Dark Surface (TF12 in in Remarks)	K, L, R) RR K, L, R) RR K, L) L) LRR K, L, R MLRA 149B A, 145, 149B
	ayer (if observed):							
Type: Depth (in	ches):		<u> </u>			Hydric Soil Present	? Yes	No X
emarks:								

Project/Site:	Heritage Wind	City/County:	Orleans Cour	nty	Sampling Date:	10/10/2019	
Applicant/Owner:	Heritage Wind, LLC (Ap	pex Clean Energy)	State	e: New York	Sampling Point:	010-1W	
Investigator(s): JM, JK		Section, Township,	Range:	To	wn of Barre		
Landform (hillslope, terrace, etc):		Local relief (concave, conve	x, none):	concave	Slope	(%):Gentle (0-5%	
Subregion (LRR or MLRA): LRR	L - Central Great Lakes Forests	Lat: 43.167233	Long:	-78.14176	Datun	n: WGS 1984	
Soil Map Unit Name:	Lyons	silt loam		NWI classificati	on: F	PF01	
Are climatic / hydrologic conditions	s on the site typical for this time o	f year? Yes X N	No (If no, ex	xplain in Remark	(s.)		
Are Vegetation, Soil _	, or Hydrologysiç	nificantly disturbed?	Are "Normal Circu	mstances" prese	ent? Yes)	X No	
Are Vegetation, Soil			(If needed, explain	n any answers in	Remarks.)		
SUMMARY OF FINDINGS	- Attach site map showin	ng sampling point loca	ations, transects	s, important	features, etc.		
Hydrophytic Vegetation Present	? Yes X No	Is the Sa	ampled Area	•	•		
Hydric Soil Present?			Wetland?	Yes X	No		
Wetland Hydrology Present?	Yes X No		otional Wetland Site I		010	_	
PFO datapoint for Report ID: 3P	rocedures here or in a separate ro wetland 010	eport.)					
HYDROLOGY							
Wetland Hydrology Indicators	; :						
Primary Indicators (minimum of	one required; check all that apply	/)		Secondary Indic	ators (minimum of t	wo required)	
Surface Water (A1)	X Wate	r-Stained Leaves (B9)	-	Surface Soi	il Cracks (B6)		
High Water Table (A2)	Aqua	tic Fauna (B13)	Drainage Patterns (B10)				
Saturation (A3)	Marl !	Deposits (B15)	-	X Moss Trim I	Lines (B16)		
Water Marks (B1)	Hydro	ogen Sulfide Odor (C1)	-	Dry-Seasor	Water Table (C2)		
Sediment Deposits (B2)	Oxidi	zed Rhizospheres on Living F	Roots (C3)	Crayfish Bu	rrows (C8)		
Drift Deposits (B3)	Prese	ence of Reduced Iron (C4)	<u>-</u>	Saturation \	√isible on Aerial Ima	agery (C9)	
Algal Mat or Crust (B4)	Rece	nt Iron Reduction in Tilled So	ils (C6)	Stunted or S	Stressed Plants (D1	1)	
Iron Deposits (B5)	Thin !	Muck Surface (C7)	<u>-</u>	X Geomorphi	c Position (D2)		
Inundation Visible on Aeria	I Imagery (B7) Other	r (Explain in Remarks)	-	Shallow Aq	uitard (D3)		
Sparsely Vegetated Conca	ve Surface (B8)		-	Microtopog	raphic Relief (D4)		
			-	X FAC-Neutra	al Test (D5)		
Field Observations:							
Surface Water Present?	Yes No X Dep	oth (inches):					
Water Table Present?		oth (inches):	•				
Saturation Present?		oth (inches):	Wetland Hydro	logy Present?	Yes X	No	
(includes capillary fringe)	100 No _ <u>X</u> Bop		· · · · · · · · · · · · · · · · · · ·	logy i roconti	100 <u>X</u>		
(morades supmary mings)							
Describe Recorded Data (stream	m gauge, monitoring well, aerial p	photos, previous inspections),	if available:				
Remarks:							

EGETATION - Use scientific names of plants.					Camp	ling Point	. 010	0-1W
				Dominance Test v	vorksheet:			
				Number of Domina	•			
	Absolute	Dominant	Indicator	That Are OBL, FAC	CW, or FAC:		5	_ (A)
ree Stratum (Plot size: 30)	%Cover	Species?	Status					
. Acer saccharinum / Silver maple	50	Yes	FACW	Total Number of Do	ominant			
. Ulmus americana / American elm	30	Yes	FACW	Species Across All	Strata:		7	(B)
. Salix / Willow	15	No				<u>-</u>		_
				Percent of Domina	nt Species			
				That Are OBL, FAC	CW, or FAC:		71.4	(A/
				,		-		_ ` `
				Prevalence Index	worksheet:			
· 	95	= Total Cove		Total % Cove	r of:	Mu	Itiply by:	
apling/Shrub Stratum (Plot size: 15)		_ 10101 0010	•1	OBL species	0	x 1 =	0	_
· · · · · · · · · · · · · · · · · · ·	20	Voo	FACU	FACW species	95	x 2 =	190	_
. Zanthoxylum americanum / Toothachetree	<u>20</u> 15	Yes Yes		FAC species	15	x 3 =	45	_
. Cornus racemosa / Gray dogwood		Yes	FAC	FACU species	20	x 4 =	80	
•		- 		UPL species	0	x 5 =	0	—
•				Column Totals:	130	(A)	315	—
·				_		(A) _		
·				Prevalence I	ndex = B/A =		2.42	
				Hydrophytic Vege	tation Indica	tore:		
	35	_ = Total Cove	r	1 - Rapid Test			ation	
lerb Stratum (Plot size: 1 Sq. M.)				X 2 - Dominance		-	ation	
. Rubus pubescens / Dwarf red raspberry	10	Yes	FACW)		
Polygonum virginianum / Jumpseed	10	Yes		3 - Prevalence		<i>(</i> 5 .		
Lindera benzoin / Northern spicebush	<u> </u>	Yes	FACW	4 - Morpholog				ing
·				Problematic H	ydrophytic Ve	getation ¹	(Explain)	
				¹ Indicators of hydri		-		it
				be present, unless	disturbed or p	roblemat	tic.	
		-						
				Definitions of Veg	etation Strat	а		
0				Tree - Woody plan				ter a
1.				breast height (DBF		_		
2				Sapling/shrub - W			3 in. DBH	and
	25	_ = Total Cove	er	greater than or equ	ial to 3.28 ft (1	l m) tall.		
Voody Vine Stratum (Plot size: 30)				Herb - All herbace size, and woody pl				ss of
				Woody vines - All	woodv vines	areater th	nan 3.28 ft	in
				height.	, -,	-		
	0	= Total Cove	r	Hydrophytic				
				Vegetation				
				Present?				

US Army Corps of Engineers

SOIL Sampling Point: 010-1W

	ription: (Describe to tl	ic acptii iic	caca to accament ti	ic illulcutor c		tile about	nec or maicators.,	
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-8	2.5Y 2.5/1	100					Loamy/Clayey	
8-20	2.5Y 6/2	100					Loamy/Clayey	
					 .			
								
			-					
					·			
Type: C=Cor	ncentration, D=Depletio	n, RM=Red	uced Matrix, MS=Masl	ked Sand Gra	ins.		² Location	: PL=Pore Lining, M=Matrix.
Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped		·	Polyvalue Below Thin Dark Surfa Loamy Mucky M Loamy Gleyed M X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LRR flineral (F1) (L Matrix (F2) (F3) face (F6) Surface (F7)	R, MLRA		2 cm Muc Coast Pra 5 cm Muc Dark Surl Polyvalue Thin Dark Iron-Mang Piedmont Mesic Sp Red Pare Very Sha	Problematic Hydric Soils*: ck (A10) (LRR K, L, MLRA 149B) airie Redox (A16) (LRR K, L, R) cky Peat or Peat (S3) (LRR K, L, R) de Below Surface (S8) (LRR K, L) c Surface (S9) (LRR K, L) ganese Masses (F12) (LRR K, L, R) critical Filodoplain Soils (F19) (MLRA 149B) odic (TA6) (MLRA 144A, 145, 149B) nt Material (F21) clow Dark Surface (TF12) cplain in Remarks)
ndicators of	hydrophytic vegetation	and wetland	d hydrology must be p	resent, unless	disturbed	or probler	natic.	
	ayer (if observed):							
Type: Depth (in	ches):						Hydric Soil Prese	ent? Yes X No
Omarka:								
Remarks:								

Project/Site:	Heritage Wind		City/County:	Orleans Cour	ity	Sampling Date:	
Applicant/Owner:		nd, LLC (Apex Clea			: New York	Sampling Point:	2L-2U
Investigator(s):	JM JK	_	Section, Townshi	p, Range:		wn of Barre	
Landform (hillslope, terrace, etc):	Flat	Local r	elief (concave, con	vex, none):	none	Slope	e (%):Gentle (0-5%
Subregion (LRR or MLRA): LRF		es Forests Lat:	43.164317	Long:	-78.18339	9 Datur	m: WGS 1984
Soil Map Unit Name:		Churchville silt lo	oam		NWI classification	on:	·
Are climatic / hydrologic condition				No (If no, ex	oplain in Remark	s.)	
Are Vegetation, Soil _	, or Hydrology	significant	y disturbed?	Are "Normal Circu	mstances" prese	ent? Yes	X No
Are Vegetation, Soil _	, or Hydrology	naturally p	roblematic?	(If needed, explain	any answers in	Remarks.)	
SUMMARY OF FINDINGS	- Attach site map	showing san	npling point lo	cations, transects	s, important	features, etc.	
Hydrophytic Vegetation Preser	it? Yes	NoX	Is the	Sampled Area			
Hydric Soil Present?	Yes	No X	within	a Wetland?	Yes	No X	_
Wetland Hydrology Present?	Yes	NoX	If yes,	optional Wetland Site II	D:		
Remarks: (Explain alternative p Upland point for F	orocedures here or in a SS portion of wetland	2L . ,	ced in Repor	t as: 2L			
HYDROLOGY							
Wetland Hydrology Indicator	s:						
Primary Indicators (minimum o		ll that apply)		5	Secondary Indica	ators (minimum of t	two required)
Surface Water (A1)	, ,	,	d Leaves (B9)			l Cracks (B6)	
High Water Table (A2)		Aquatic Faun	` '	-		atterns (B10)	
Saturation (A3)		Marl Deposits	` ,	-	Moss Trim L	` '	
Water Marks (B1)		Hydrogen Su	lfide Odor (C1)	-	 Dry-Season	Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhiz	zospheres on Livin	g Roots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)		Presence of I	Reduced Iron (C4)	- · · · · -	Saturation \	/isible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)		Recent Iron F	Reduction in Tilled	Soils (C6)	Stunted or S	Stressed Plants (D	1)
Iron Deposits (B5)		Thin Muck Su	urface (C7)	· ,	Geomorphic	Position (D2)	,
Inundation Visible on Aeri	al Imagery (B7)	Other (Explai	n in Remarks)	-	Shallow Aqu	uitard (D3)	
Sparsely Vegetated Conc	ave Surface (B8)			-	Microtopogr	aphic Relief (D4)	
				- -	FAC-Neutra	l Test (D5)	
Field Observations:							
Surface Water Present?	Yes No	X Depth (inch	es).				
Water Table Present?	Yes No		· ———	_			
Saturation Present?	Yes No	X Depth (inch	, 	Wetland Hydro	logy Present?	Yes	No X
(includes capillary fringe)		<u> </u>		_ """""""""""""""""""""""""""""""""""			
(e.a.ee caparyge)							
Describe Recorded Data (stream	am gauge, monitoring w	ell, aerial photos, ړ	previous inspection	s), if available:			
Remarks: Report ID: 2L PSS							

Dominance Test worksheet: Number of Dominant Species
Number of Dominant Species
icator That Are OBL, FACW, or FAC: 0 (A
tus
Total Number of Dominant
Species Across All Strata: 1 (B
Percent of Dominant Species
That Are OBL, FACW, or FAC: 0.0 (A
Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL species 0 x 1 = 0
FACW species 0 x 2 = 0
FAC species
FACU species 0 x 4 = 0
UPL species 0 x 5 = 0
Column Totals: 0 (A) 0
Prevalence Index = B/A =div/0
Hydrophytic Vegetation Indicators:
1 - Rapid Test for Hydrophytic Vegetation
2 - Dominance Test is >50%
3 - Prevalence Index ≤3.0¹
4 - Morphological Adaptations (Provide supporting
Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators 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 a
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
_

SOIL Sampling Point: 2L-2U

Profile Descr	iption: (Describe to tl	ne depth neede	ed to document th	ne indicator o	or confirm	the abser	nce of indicators.	.)	_	
Depth	Matrix	-	Redox	Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture		Remarks	
0-18	10YR 3/2	100					Loamy/Clayey			
18-24	5YR 5/4	100					Loamy/Clayey			
	-									
										
'Type: C=Con	centration, D=Depletio	n, RM=Reduced	d Matrix, MS=Mask	ked Sand Gra	iins.		² Locatio	on: PL=Po	re Lining, M=Matri	ıX.
Black His Hydroger Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped Dark Sur	(A1) ipedon (A2)	.RA 149B)	Polyvalue Below Thin Dark Surface Loamy Mucky M Loamy Gleyed N Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LRI fineral (F1) (I Matrix (F2) (F3) face (F6) Surface (F7) ons (F8)	R R, MLRA	(149B)	Coast F Coast F S cm M Dark SI Polyval Thin Da Iron-Ma Piedmo Mesic S Red Pa Very SI Other (luck (A10) Prairie Rec lucky Peat urface (S7 lue Below ark Surface anganese l ont Floodpl Spodic (TA arent Mater	k Surface (TF12)	A 149B) (, L, R) R K, L, R) R K, L)) RR K, L, R) ILRA 149B)
Type:	ayer (if observed):		_				Undrin Onli Boo	10	V	N- V
Depth (inc	nies).		<u> </u>				Hydric Soil Pre	sent?	Yes	No X
Remarks:										

Project/Site:	Heritage Wind	City/Cou	nty: Orleans Co	ounty	Sampling Date:	10/11/2019
Applicant/Owner:	Heritage Wind, LL	C (Apex Clean Energy)		ate: New York	Sampling Point:	2L-2W
Investigator(s):	JM,JK	Section,	Township, Range:	Tov	wn of Barre	
Landform (hillslope, terrace, etc):		Local relief (conc	ave, convex, none):	none	Slope	(%):Gentle (0-5%
Subregion (LRR or MLRA): LRR L			.164551 Long:	-78.18341		: WGS 1984
Soil Map Unit Name:	Lake	emont silt clay loam		NWI classification	n: PSS	
Are climatic / hydrologic conditions	on the site typical for this t	ime of year? Yes	X No (If no	_ , explain in Remark	s.)	
Are Vegetation , Soil	, or Hydrology	significantly disturbed	d? Are "Normal Cir	cumstances" prese	nt? Yes X	No
	, or Hydrology			ain any answers in	Remarks.)	
SUMMARY OF FINDINGS -	Attach site map she	owing sampling p	oint locations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area			
Hydric Soil Present?	Yes X		within a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Sit	e ID:	2L-2W PSS	<u> </u>
Remarks: (Explain alternative property PSS wetland point	Referenced in Re	. ,				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of o	ne required; check all that	apply)		Secondary Indica	tors (minimum of tv	vo required)
Surface Water (A1)		Water-Stained Leaves (B9)	Surface Soil	Cracks (B6)	
High Water Table (A2)		Aquatic Fauna (B13)		Drainage Pa	atterns (B10)	
Saturation (A3)		Marl Deposits (B15)		Moss Trim L	ines (B16)	
Water Marks (B1)	<u> </u>	Hydrogen Sulfide Odor	(C1)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	X	Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bur	rows (C8)	
Drift Deposits (B3)	<u></u>	Presence of Reduced Ir	on (C4)	Saturation V	isible on Aerial Ima	gery (C9)
Algal Mat or Crust (B4)	<u> </u>	Recent Iron Reduction i	n Tilled Soils (C6)	Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)	<u> </u>	Thin Muck Surface (C7))	X Geomorphic	Position (D2)	
Inundation Visible on Aerial	Imagery (B7)	Other (Explain in Rema	rks)	Shallow Aqu	itard (D3)	
Sparsely Vegetated Concav	e Surface (B8)			X Microtopogra	aphic Relief (D4)	
_				FAC-Neutra	Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X	Depth (inches):				
Water Table Present?	Yes No X	Depth (inches):				
Saturation Present?	Yes No X	Depth (inches):	Wetland Hyd	Irology Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Data (stream	gauge, monitoring well, a	erial photos, previous in	spections), if available:			
Remarks:						

EGETATION - Use scientific names of plants.				1	mpling Point: 2	L-2W
				Dominance Test worksheet: Number of Dominant Species		
Tree Stratum (Plot size: 30)	Absolute %Cover	Dominant Species?	Indicator Status	That Are OBL, FACW, or FAC	: 5	_ (A)
1. Populus deltoides / Eastern cottonwood	20	Yes	FAC	Total Number of Dominant		
2. Fraxinus pennsylvanica / Green ash 3.	10	Yes	FACW	Species Across All Strata:	6	_ (B)
i.				Percent of Dominant Species		
i.				That Are OBL, FACW, or FAC	: 83.3	(A/B
5.		_		Prevalence Index workshee	<u> </u>	
7	30	= Total Cove		Total % Cover of:	Multiply by:	
Cardina/Church Ctuatura (Diataina) 45	30	_ = Total Cove	S r	OBL species 0	x 1 = 0	
Sapling/Shrub Stratum (Plot size: 15)	40	V	EA C\A/	FACW species 50	x 2 = 100	
. Fraxinus pennsylvanica / Green ash	40	Yes	FACW	FAC species 45	x 3 = 135	
. Cornus racemosa / Gray dogwood	20 10	Yes	FAC	FACU species 0	x 4 = 0	
. Cornus sericea ssp. sericea / Red osier dogwood		No		UPL species 0	x 5 = 0	
				Column Totals: 95	(A) 235	(E
·				Prevalence Index = B/A	_ ` '	
	70	= Total Cove	ar.	Hydrophytic Vegetation Indi	cators:	
lerb Stratum (Plot size: 1 Sq. M.)		_ = 10tai 0000	J1	1 - Rapid Test for Hydrop	hytic Vegetation	
. Symphyotrichum / Aster	5	Yes		X 2 - Dominance Test is >5	0%	
. Cornus racemosa / Gray dogwood	5	Yes	FAC	3 - Prevalence Index ≤3.	D¹	
		_		4 - Morphological Adapta	,	•
				Problematic Hydrophytic	Vegetation¹ (Explain)	
·		_,		¹Indicators of hydric soil and v	vetland hydrology mu	st
i.		_,		be present, unless disturbed of	or problematic.	
				Definitions of Vegetation St	rata	
0				Tree - Woody plants 3 in. (7.6 breast height (DBH), regardle		eter at
1	·	-		0 ()	· ·	
	10	= Total Cove	er	Sapling/shrub - Woody plant greater than or equal to 3.28 f		and
Noody Vine Stratum (Plot size:30) I				Herb - All herbaceous (non-w size, and woody plants less the		ess of
2. 3.		_		Woody vines - All woody vine height.	es greater than 3.28 f	in
ı	0	= Total Cove		Hydrophytic		
		10.01 0000	J.	Vegetation		

US Army Corps of Engineers

Remarks: (Explain alternative procedures here or in a separate report.)

Yes ___X No ____

Present?

SOIL Sampling Point: 2L-2W

					· ·			Sampling Point.	ZL-ZVV
	ription: (Describe to the Matrix	depth need		ne indicator k Features	or confirm	1 the abse	ence of indicators.)		
Depth (inches)	Color (moist)	%	Color (moist)	% realures	Type ¹	Loc²	- Texture	Remarks	
0-18	10yr 3/1	95	7.5 4/6	5	C rype	PL/M	Loamy/Clayey	Remarks	
0 10			1.5 476						
Type: C=Con	ncentration, D=Depletion,	RM=Reduce	ed Matrix, MS=Masl	ked Sand G	rains.		²Location:	PL=Pore Lining, M=Matrix.	
Black His Hydroger Stratified Depleted Thick Dan Sandy Mo Sandy Gl Sandy Re Stripped Dark Surf	(A1) ipedon (A2)		Polyvalue Belov Thin Dark Surfa Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LF dineral (F1) Matrix (F2) (F3) face (F6) Surface (F7) ions (F8)	RR R, MLR,	A 149B)	9B) 2 cm Mucl Coast Pra 5 cm Mucl Dark Surfa Polyvalue Thin Dark Iron-Mang Piedmont Mesic Spo Red Parer Very Shall Other (Exp	Problematic Hydric Soils ³ : k (A10) (LRR K, L, MLRA 14 irie Redox (A16) (LRR K, L, ky Peat or Peat (S3) (LRR K ace (S7) (LRR K, L) Below Surface (S8) (LRR K Surface (S9) (LRR K, L) janese Masses (F12) (LRR Floodplain Soils (F19) (MLR odic (TA6) (MLRA 144A, 144 int Material (F21) ow Dark Surface (TF12) plain in Remarks)	R) , L, R) , L) K, L, R) A 149B)
	ayer (if observed):	ia wonana n			oo diotarbot	2 or proble	Hydric Soil Prese	nt? Yes X No	
Depth (inc	ches):						,		

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region Sampling Date: 6/11/19 Project/Site: Heritage Wind Farm City/County: Orleans State: NY Sampling Point: DP- C4C Applicant/Owner: Apex investigator(s): Jimmy Ireland and Tristen Peterson Section, Township, Range: Hillslore Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): Datum: NAD '83 Long: -78.143110 Subregion (LRR or MLRA): LRR R Lat: 43.178347 Soil Map Unit Name: Ant Appleton Silt loam, 0 to 3 percent gloss NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes ______ No _____ (If no, explain in Remarks.) Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are Vegetation N, Soil N, or Hydrology N naturally problematic? Are "Normal Circumstances" present? Yes ________ No__ (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes ____ No γ within a Wetland? Yes _____ No X Hydric Soil Present? Wetland Hydrology Present? No 入 If yes, optional Wetland Site ID: Remarks: (Explain alternative procedures here or in a separate report.) Upland point for WL-075 Referenced in Report as: 3C **HYDROLOGY Wetland Hydrology Indicators:** Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soll Cracks (B6) ___ Water-Stained Leaves (B9) ___ Drainage Patterns (B10) Surface Water (A1) ___ Aquatic Fauna (B13) ___ Moss Trim Lines (B16) High Water Table (A2) __ Marl Deposits (B15) Saturation (A3) Dry-Season Water Table (C2) Water Marks (B1) __ Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) N/P Presence of Reduced Iron (C4) ___ Stunted or Stressed Plants (D1) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aguitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes ____ No Y Depth (inches): Yes ____ No ___ Depth (inches): Water Table Present? **Saturation Present?** Yes ____ No __ > Depth (inches): < Wetland Hydrology Present? Yes _____ No _X_ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No wetland hydrology was observed at the dark point

∅ = Total Co	Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet:
g = Total Co	Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
# = Total Co	Prevalence Index worksheet:
= Total Co	Total % Cover of: Multiply by: over OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A)
	FACW species x 2 =
	FACU species x 4 =
	UPL species x 5 = Column Totals: (A)
	Column Totals: (A)
	(A)
	Hydrophytic Vegetation Indicators:
	1 - Rapid Test for Hydrophytic Vegetation
T = Total Co	2 - Dominance Test is >50%
	3 - Prevalence Index is ≤3.0¹
	4 - Morphological Adaptations (Provide suppo data in Remarks or on a separate sheet)
	Indicators of hydric soil and wetland hydrology must
	at breast height (DRH) regardless of height
	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
	Took All hadroness from woods) plants according to
	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.
7 = Total Co	
	Hydrophytic
_	Vegetation
	Present? Yes No
	
	over

Depth _	Matrix Color (moist)	0/	Color /		Features		Loc ²	Taxture	Demorte
(inches)		70%	Color (m		%	Type ¹		Texture	Remarks
0-20 in	10 YR 3/3	40.10	54K 4		30%	<u>-</u> -	<u>—</u>	_Silf Leam	
		=							
Type: C=Con	centration, D=Dep	letion, RM=	Reduced M	atrix, MS=	Masked	Sand Gra	ains.		Pore Lining, M=Matrix.
Black Hist Hydrogen Stratified I Depleted I Thick Dari Sandy Mu Sandy Gle Sandy Re Stripped I Dark Surfa	pedon (A2) ic (A3) Sulfide (A4) Layers (A5) Below Dark Surface K Surface (A12) icky Mineral (S1) eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M	/ILRA 149B	MLR Thin Da Loamy Loamy Deplete Redox I Deplete Redox I	Mucky Mir Gleyed Ma d Matrix (I Dark Surfa d Dark Su Depression	e (S9) (Lineral (F1) heral (F1) atrix (F2) F3) nce (F8) rface (F8)	RR R, MI) (LRR K	.RA 149B)	Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark Su Iron-Mangan Pledmont Flo Mesic Spodie Red Parent flo Very Shallow	A10) (LRR K, L, MLRA 149B) PREDERING (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) Pelow Surface (S8) (LRR K, L) Period (S9) (LRR K, L) Pese Masses (F12) (LRR K, L, R) Podplain Soils (F19) (MLRA 149B) Podrial (F21) Podr Surface (TF12) In In Remarks)
	nydrophytic vegetat nyer (if observed):		land hydrol	gy must b	e prese	nt, unless	disturbed	or problematic.	
Type: Depth (inch	N/A es): N/A							Hydric Soil Prese	ent? Yes No
Soils	are d	osh,	bed intro	becau	2	tra 1	clates	oint wa	s taken in Try been tilled

	ATA FORM - Northcentral and Northeast Region
Project/Site: Heritage Wind Farm	City/County: Orleans Sampling Date: 6/1//9
Applicant/Owner: APex	State: NY Sampling Point: DP- 04
Investigator(s): Jimmy Ireland and Tristen Peterson	Section, Township, Range: Barce
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): Slope (%):_ 2
Subregion (LRR or MLRA): LRR R Lat: 43.14	77858 Long: -78.142573 Datum: NAD '83
Soil Map Unit Name: Ly, Lyens Soils, 0 to 3 po	Tent slopes NWI classification: Netrlassifical
Are climatic / hydrologic conditions on the site typical for this time	
Are Vegetation, Soil, or Hydrology signifi	
Are Vegetation	
	wing sampling point locations, transects, important features, et
Hydrophytic Vegetation Present? YesY No Hydric Soil Present? YesY No	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes Y No Remarks: (Explain alternative procedures here or in a separate	If yes, optional Wetland Site ID: WL-075
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that a	pply) Surface Soil Cracks (B6)
	ained Leaves (B9) <u>x</u> Drainage Patterns (B10)
	auna (B13) Moss Trim Lines (B16)
	osits (B15) Dry-Season Water Table (C2)
	n Sulfide Odor (C1) Crayfish Burrows (C8) Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	e of Reduced Iron (C4) Stunted or Stressed Plants (D1)
	on Reduction in Tilled Solls (C6) <u>×</u> Geomorphic Position (D2)
	k Surface (C7) Shallow Aquitard (D3)
마마 마음을 생기는 경우는 것은 이 아름다는 사람들은 이렇게 되었다. 아들은 그들은 아들은 아들은 아들은 아들은 아들은 아들은 아들은 아들은 아들은 아	xplain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8) Field Observations:	FAC-Neutral Test (D5)
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	nches): 3"
	nches): 0
	nches): U Wetland Hydrology Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if available:
Control of the contro	prototi prototio inspection, in a sanation
Demodes	
Remarks:	

Tree Stratum (Plot size: 30')	Absolute % Cover	Species?	Indicator Status FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
	15%		FACV	Total Number of Dominant Species Across All Strata: (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:/Coclo (A/B)
6		= Total Co	ver	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 151)			_	FACW species x 2 = FAC species x 3 = FACU species x 4 =
234		-		UPL species x 5 = Column Totals: (A) (B)
5.				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators: *\sum_{10} = \text{Rapid Test for Hydrophytic Vegetation}
Herb Stratum (Plot size:	_C	= Total Co	ver	 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
	50		FAC	data in Remarks or on a separate sheet)
2. Fraxmus pennsylvania	20	_ <u>y</u>	FACU	Problematic Hydrophytic Vegetation¹ (Explain)
3. Toxicodendran radicans	20_		FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
7.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8		-	-	Sapling/shrub Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10			=	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines - All woody vines greater than 3.28 ft in height.
	90	= Total Co	ver	
Woody Vine Stratum (Plot size:)	200	11	C1 -	
1. Toxicodendran radious	_40_		FAC	Hydrophytic
2			, — – ,	Vegetation Present? Yes X No
3	^,====	4	-	103 <u>//</u> 110
*	40	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate				

Hydric Soll Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Stripped Matrix (S6)	cation: PL=Pore Lining, M=Matrix. ators for Problematic Hydric Solls ³ ; cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) is cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thiok Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	cation: PL=Pore Lining, M=Matrix. ators for Problematic Hydric Solls ³ ; 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Polyvalue Below Surface (S8) (LRR K, L)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soll Indicators: Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (F6) Sandy Mucky Mineral (F1) Thick Dark Surface (A12) Kedox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	cation: PL=Pore Lining, M=Matrix. ators for Problematic Hydric Solls ³ ; 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)
Hydric Soll Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) 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) Stripped Matrix (S6)	ators for Problematic Hydric Solls ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Oark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)
Hydric Soll 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) Redox Depressions (F8) Stripped Matrix (S6)	ators for Problematic Hydric Solls ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Oark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)
Hydric Soll 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) Redox Depressions (F8) Stripped Matrix (S6)	ators for Problematic Hydric Solls ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Oark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)
Hydric Soll 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)	ators for Problematic Hydric Solls ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Oark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)
Hydric Soll 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) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) (LRR K, L) Loamy Gleyed Matrix (F2) Fedox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Sandy Redox (S5) Stripped Matrix (S6)	ators for Problematic Hydric Solls ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Oark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)
Hydric Soll 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)	ators for Problematic Hydric Solls ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Oark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)
Hydric Soll 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)	ators for Problematic Hydric Solls ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Oark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, Histic Epipedon (A2) MLRA 149B) Company Mucky Mineral (F1) (LRR K, L) Loamy Mucky Mineral (F1) (LRR K, L) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Company Mucky Mineral (F6) Company Gleyed Matrix (F3) Company Gleyed Matrix (F4) Company Gleyed Matrix (F4) Company Gleyed Matrix (F6) Co	c cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) c cm Mucky Peat or Peat (S3) (LRR K, L, R) Oark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)
*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or proble Restrictive Layer (If observed): Type:	Thin Dark Surface (S9) (LRR K, L) ron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Solls (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	Soil Present? Yes X No
Remarks:	

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region City/County: Orleans Sampling Date: 05/29/19
State: NY Sampling Point: DP-023 Project/Site: Heritage Wind Farm APex Applicant/Owner: Investigator(s): M.K. Brestow & Tristen Reterson Section, Township, Range: Town of Barre Landform (hillslope, terrace, etc.): Degress in Local relief (concave, convex, none): Contave Slope (%): 0-3 Subregion (LRR or MLRA): LRR R Lat: 43. 1377 87 Long: -78.264 029 Datum: NAD'83 Soil Map Unit Name: AnA, Appleton silf loam, O to 3 percent slopes NW classification: PUBHX Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.) Are Vegetation __/\mathcal{N}_, Soil __/\mathcal{N}_, or Hydrology __/\mathcal{N}__ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. is the Sampled Area Hydrophytic Vegetation Present? within a Wetland? If yes, optional Wetland Site ID: Wetland - 022 Remarks: (Explain alternative procedures here or in a separate report.) PSS datapoint for Wetland- 022 Referenced in Report as: 1D **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) ✓ Drainage Patterns (B10) Surface Water (A1) Water-Stained Leaves (B9) ★ High Water Table (A2) ___ Moss Trim Lines (B16) ___ Aquatic Fauna (B13) Dry-Season Water Table (C2) ★ Saturation (A3) Mari Deposits (B15) ★ Hydrogen Sulfide Odor (C1) __ Crayfish Burrows (C8) ___ Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) ___ Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) NA Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) \underline{X} Geomorphic Position (D2) ___ Recent Iron Reduction In Tilled Soils (C6) ___ Algal Mat or Crust (B4) ___ Thin Muck Surface (C7) Iron Deposits (B5) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Microtopographic Relief (D4) Other (Explain in Remarks) FAC-Neutral Test (D5) Sparsely Vegetated Concave Surface (B8) Field Observations: ____ No X Depth (inches): **Surface Water Present?** Water Table Present? Yes X No Depth (Inches): Wetland Hydrology Present? Yes ______ No Yes X No Depth (inches): Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30-f+-)	^	Species?		Number of Dominant Species 7
1. Fraxious pennsylvanian	60	1	FACW	That Are OBL, FACW, or FAC:(A)
2. Salix negra	10		082	Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7.				Total % Cover of: Multiply by:
	82	= Total Cov	/er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15-ft r)	1			FACW species x 2 =
1. S. IX Make	70	V	OBL	FAC species x 3 =
		-	FACU	FACU species x 4 =
2. Frakmus pennsylvenica	-	21		UPL species x 5 =
3. Lonicera takrica	_5_	_ N_	FACU	Column Totals: (A) (B)
4	-		بسسا	
5	-			Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	55	= Total Cov	ver	★ 2 - Dominance Test is >50%
Herb Stratum (Plot size: 5-ft -)	-	1000.00		3 - Prevalence Index is ≤3.01
	30	Y	OBL	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
1. Entrochium macaletum		Y	DBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Carex Alava	15	y	FAC	
3. Toxicodondron radicons		7	-	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Salox nugra	_10_	N	OBL	
5				Definitions of Vegetation Strata:
6				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub - Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
				Herb - All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11				Woody vines - All woody vines greater than 3.28 ft in
12	-			height.
z. 0.	75	= Total Co	ver	
Woody Vine Stratum (Plot size: 30- Pt /)				
And the second of the second o				
\ <u></u>				Hydrophytic
2				Vegetation Present? Yes No
2				
3				
2		= Total Co		

Depth (Inches)	Matrix Color (moist)	%	Color	Red (moist)	ox Feature		Loc ²	Toutum	Degrade
0-7	1048 42	90	10 1/2		10	Type ¹	LOC	SiCL	Remarks
7-14	10/R 4/2	85	IDYR			-	-		
14-20	^/				15		_M	CL_	
14-20	10 XR 6/4	90	IOYR	72	<u>10</u>		<u>M</u>		
Type: C=Cor lydric Soil In Histosol (etion, RM			S=Masked			Indicators for P	=Pore Lining, M=Matrix. roblematic Hydric Soils ³ : (A10) (LRR K, L, MLRA 149B)
Black Hisi Hydrogen Stratified Depleted Thick Dari Sandy Mu Sandy Gle	n Sulfide (A4) Layers (A5) Below Dark Surface rk Surface (A12) ucky Mineral (S1) eyed Matrix (S4) edox (S5)		Thin Loan Loan Loan Deple Redo Deple Redo	ny Mucky M ny Gleyed eted Matrix ox Dark Su	ace (S9) (L Mineral (F1 Matrix (F2) c (F3) rface (F6) Surface (F) ions (F8)) (LRR K,	L)	Coast Prairi 5 cm Mucky Dark Surface Polyvalue Be Thin Dark Si Iron-Mangar Piedmont Fl Mesic Spodi Red Parent Very Shallov Other (Explain	e Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) e (S7) (LRR K, L, M) elow Surface (S8) (LRR K, L) urface (S9) (LRR K, L) nese Masses (F12) (LRR K, L, F) oodplain Soils (F19) (MLRA 145, 149) Material (F21) v Dark Surface (TF12) tin in Remarks)
_ Stripped N	Matrix (S6) face (S7) (LRR R, M	LRA 149E					disturbed .	or problematic.	
Stripped M Dark Surfa	face (S7) (LRR R, M hydrophytic vegetati		tland hydr	ology mus	t be preser	nt, unless	distance	31 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Stripped N Dark Surfa	face (S7) (LRR R, M hydrophytic vegetati ayer (if qbserved):		tland hydr	ology mus	t be preser	nt, unless	distanced	Hydric Soil Prese	ent? Yes X No

Project/Site: Heritage Wind Farm	City/County: Orleans Sampling Date:	11/14/18
Applicant/Owner: Calpine	State: NY Sampling Point:	
Investigator(s): Jimmy Ireland	V	0. 0.7
	Section, Township, Range: Dane	
Landform (hillslope, terrace, etc.):		(%): <u>0-3</u>
Subregion (LRR or MLRA): LRR R		NAD'83
Soil Map Unit Name: LK, Lakemont Si	1ty clay learn, 0 to 3 porcent glopes NWI classification: PEMIL	SSIE
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes X No (If no, explain in Remarks.)	
Are Vegetation (A), Soil (N), or Hydrology	r N₁ significantly disturbed? Are "Normal Circumstances" present? Yes ✓	No
Are Vegetation N., Soil N., or Hydrology	naturally problematic? (If needed, explain any answers in Remarks.)	
	te map showing sampling point locations, transects, important fea	tures, etc.
Hydrophytic Vegetation Present? Yes _	No Is the Sampled Area within a Wetland? Yes X No	
[
Wetland Hydrology Present? Yes _ Remarks: (Explain alternative procedures here	No If yes, optional Wetland Site ID: A-Wetlend - 605	
PENT do report	Referenced in Report as: 1K	
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indicators (minimum of tw	vo required)
Primary Indicators (minimum of one is required;	check all that apply) Surface Soil Cracks (B6)	
Surface Water (A1)	Water-Stained Leaves (B9) Drainage Patterns (B10)	
High Water Table (A2)	Aquatic Fauna (B13) Moss Trim Lines (B16)	
Saturation (A3)	Marl Deposits (B15) Dry-Season Water Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)	(00)
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imag Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)	60.4
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6) — Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7) Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks) Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)	
Field Observations:		
Surface Water Present? Yes No _	Depth (inches):	
Water Table Present? Yes No	Depth (inches):	
Saturation Present? Yes No _	✓ Depth (inches): ✓ Wetland Hydrology Present? Yes	No
(includes capillary fringe) Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspections), if available:	
Remarks:		

VEGETATION – Use scientific names of plants.

20.01		Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30-C+-)	<u>% Cover</u>	Species? Status	Number of Demisers Consider
1			That Are OBL, FACW, or FAC:(A)
			That yes obelit it only of the second of the
2			Total Number of Dominant
3			Species Across All Strata: (B)
4		1	5 1165 1 10 1
4			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5			That Are OBL, FACW, or FAC: (A/B)
6			
1227 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
	0	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15-5+)			FACW species x 2 =
Sapling/Shrub Stratum (Plot size: (1) 1 1 2)			
1			FAC species x 3 =
			FACU species x 4 =
2			UPL species x 5 =
3			Column Totals: (A) (B)
			Column rotals(A)(B)
4			Prevalence Index = B/A =
5			Frevalence index = D/A =
6			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
7	-		
_	0	= Total Cover	∑ 2 - Dominance Test is >50%
Herb Stratum (Plot size: 577)	×		3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 9 161)	_	- A	4 - Morphological Adaptations ¹ (Provide supporting
1. Pholosis arundinacea	Q5	y FAW	data in Remarks or on a separate sheet)
2. Lonicera tatorica	5	N FACY	Problematic Hydrophytic Vegetation ¹ (Explain)
2. LONICETA TUTOVICE			
3			¹ Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
4			
5			Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
			at breast height (DBH), regardless of height.
7			
8			Sapling/shrub - Woody plants less than 3 in. DBH
			and greater than or equal to 3.28 ft (1 m) tall.
9			TT. b. All bedeates of comments of a second less of
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2			size, and woody plants less than 3.26 it tall.
11	-		Woody vines - All woody vines greater than 3.28 ft in
12.			
164			height.
14-	100	= Total Cover	
7. 0.	[00	= Total Cover	
7. 0.	[00	= Total Cover	
Woody Vine Stratum (Plot size: 30-1)	100	= Total Cover	
7. 0.		= Total Cover	height.
7. 0.		= Total Cover	height. Hydrophytic
7. 0.		= Total Cover	height.
7. 0.		= Total Cover	height. Hydrophytic
7. 0.		= Total Cover	height. Hydrophytic
7. 0.		= Total Cover	height. Hydrophytic
Woody Vine Stratum (Plot size:			height. Hydrophytic
7. 0.			height. Hydrophytic
Woody Vine Stratum (Plot size:			height. Hydrophytic
Woody Vine Stratum (Plot size:			height. Hydrophytic
Woody Vine Stratum (Plot size:			height. Hydrophytic
Woody Vine Stratum (Plot size:			height. Hydrophytic
Woody Vine Stratum (Plot size:			height. Hydrophytic
Woody Vine Stratum (Plot size:			height. Hydrophytic
Woody Vine Stratum (Plot size:			height. Hydrophytic
Woody Vine Stratum (Plot size:			height. Hydrophytic

or (moist) % R2/1 100 R2/1 Q5	7.5 1/2 5/6	<u></u>	C M	SiCL SiCL	Remarks
e 4, a 5	7.5 1/2 5/6	<u>-</u>	C M	Sick _	
tion, D=Depletion, R					
			==		
re.	M=Reduced Matrix, MS	=Masked Sa	and Grains.	² Location: P	L=Pore Lining, M=Matrix.
13.	B. C. T. B.				Problematic Hydric Soils ³ :
(A2)	Polyvalue Below MLRA 149B)			Coast Prai	(A10) (LRR K, L, MLRA 149B) irie Redox (A16) (LRR K, L, R)
					ky Peat or Peat (S3) (LRR K, L, R) ace (S7) (LRR K, L, M)
			LINK IV, L)		Below Surface (S8) (LRR K, L)
					Surface (S9) (LRR K, L)
					anese Masses (F12) (LRR K, L, R)
					Floodplain Soils (F19) (MLRA 149B
	Redox Depressi	ons (F8)			dic (TA6) (MLRA 144A, 145, 149B)
					ow Dark Surface (TF12)
	19B)				olain in Remarks)
	wetland hydrology must	be present,	unless disturbe	ed or problematic.	
NA					
	7			Hydric Soil Pre	sent? Yes X No
				Tryunic Compile	30mi 133 No
1	e (A4) e (A5) Dark Surface (A11) ace (A12) ineral (S1) latrix (S4) is) (S6) 7) (LRR R, MLRA 14) hytic vegetation and f observed): \$\mathcal{L} \text{\texi{\text{\text{\text{\texi\texi{\texi\text{\text{\texi{\t	Thin Dark Surface (A4) (A5) Dark Surface (A11) Depleted Matrix Acc (A12) Statrix (S4) Depleted Dark Surface (S4) Second Depression (S6) To (LRR R, MLRA 149B) Thin Dark Surface (A12) Second Depleted Dark Surface (A12) Redox Depression (S6) To (LRR R, MLRA 149B) Thin Dark Surface (A1) Second Depleted Dark Surface (A12) Second Depleted Matrix Second Depleted Matrix Second Depleted Matrix Second Depleted Matrix Second Depleted Dark Surface (A12) Second Depleted Matrix Second Depleted Matrix Second Depleted Matrix Second Depleted Matrix Second Depleted Matrix Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Depleted Dark Surface (A12) Second Da	Thin Dark Surface (S9) (LRF e (A4) Loamy Mucky Mineral (F1) (I (A5) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) X Redox Dark Surface (F6) Depleted Dark Surface (F6) Netric (S4) Redox Depressions (F8) (S6) (S6) (T) (LRR R, MLRA 149B) Thytic vegetation and wetland hydrology must be present, Fobserved):	Thin Dark Surface (S9) (LRR R, MLRA 149 e (A4) Loamy Mucky Mineral (F1) (LRR K, L) Loamy Gleyed Matrix (F2) Dark Surface (A11) Depleted Matrix (F3) ace (A12) X Redox Dark Surface (F6) Ineral (S1) Depleted Dark Surface (F7) Redox Depressions (F8) S5) (S6) 7) (LRR R, MLRA 149B) hytic vegetation and wetland hydrology must be present, unless disturbed to be preserved): NA	Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Muck e (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (A5) Loamy Gleyed Matrix (F2) Polyvalue Dark Surface (A11) Depleted Matrix (F3) Thin Dark ace (A12) Redox Dark Surface (F6) Iron-Mangi ineral (S1) Depleted Dark Surface (F7) Piedmont I latrix (S4) Redox Depressions (F8) Mesic Spo (S6) Red Paren (Yery Shalle (T) (LRR R, MLRA 149B) Other (Exp

	ATION DATA FORM – N		Northeast	Region
Project/Site: Heritage Wind Farm	City/County:			Sampling Date: 11/14/18
Applicant/Owner: Calpine			ate: NY	_ Sampling Point: DP- DI 6
Investigator(s): Jimmy Ireland			rre	
Landform (hillslope, terrace, etc.): 100500 PE		ave, convex, none): _	Canve	✓ Slope (%): 5-4
	t: 43.149 337	Long: 79.		Datym: NAD'83
Soil Map Unit Name: LK, La kement silty	chy loam, 0 to 3 pers	at slopes	NWI classifica	ation: Not magest
Are climatic / hydrologic conditions,on the site typical	for this time of year? Yes	✓No (If no	explain in Re	emarks.)
Are Vegetation 1, Soil 1, or Hydrology	Significantly disturbed?	Are "Normal Circi		
Are Vegetation, Soil, or Hydrology		(If needed, explai	and the second	A STATE OF THE PARTY OF THE PAR
	La Company of the Company	a second to the		
SUMMARY OF FINDINGS – Attach site i	nap showing sampling	point locations,	transects,	important features, etc
Hydrophytic Vegetation Present? Yes		Sampled Area	all a land	
Hydric Soil Present? Yes	_ 100 /	a Wetland?	Yes	_ No X
Wetland Hydrology Present? Yes		optional Wetland Site	ID:	
Remarks: (Explain alternative procedures here or in	a separate report.)			
1111111	C. TA 12	Hord. Do	-	
append destropint.	tor for me	110-0-00)	
		1 · D	. 177	
	Refer	enced in Repor	t as: 1K	
1000				
HYDROLOGY				
Wetland Hydrology Indicators:		Seco	ondary Indicat	ors (minimum of two required)
Primary Indicators (minimum of one is required; cher	ck all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	1	Drainage Patt	erns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	_	Moss Trim Lin	es (B16)
Saturation (A3)	Marl Deposits (B15)		Dry-Season V	later Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burro	
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizospheres on Liv			ible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C- Recent Iron Reduction in Tille			essed Plants (D1)
Iron Deposits (B5)	Thin Muck Surface (C7)	Control of the Contro	Geomorphic F Shallow Aquit:	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)			hic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	, Carlot (Express) in Heritality		FAC-Neutral 7	
Field Observations:		7	710 Houlde	cor (Do)
Surface Water Present? Yes No'X	Depth (inches):			
	Depth (inches):)		
Saturation Present? Yes No	Depth (inches):	Wetland Hydro	logy Present	7 Yes No X
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring)	wall portal abatan province for			ALC: STATE OF THE PARTY OF THE
Describe recorded Data (Stream gauge, mornioring	well, aeliai pholos, previous ins	pections), ii available.		
Remarks:				
1 1				
	1 1 1		7	
Wet level	Marco 692	1. 11 6 060	201	1 4.
No wet land Luta point	hydro bgg	1047 010°	2/10	at the
1-1-				
Surfe Con 1				
LAND LOWY+				
V				

Tree Stratum (Plot size: 30-C+)		Species?	t Indicator Status	Dominance Test worksheet: Number of Dominant Species
1		_		That Are OBL, FACW, or FAC:(A)
2,		-	-	Total Number of Dominant
3		_	-	Species Across All Strata: (B)
1		-		
5	_			That Are OBL, FACW, or FAC: (A/E
3				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
		= Total Co	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15-f+r)				FACW species x 2 =
				FAC species x 3 =
				FACU species x 4 =
				UPL species x 5 =
3				Column Totals: (A) (B
				Prevalence Index = B/A =
i				15. 37.57.7 5.1 10.7 177.7 177.5
3				Hydrophytic Vegetation Indicators:
1,				1 - Rapid Test for Hydrophytic Vegetation
	2	= Total Co	over	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5-Ct)				3 - Prevalence Index is ≤3.0 ¹
Tara Yacum officinale	95	Y	NI	 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Tara Kacum officiale	5	N	FACU	Problematic Hydrophytic Vegetation¹ (Explain)
3				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4			_	
5			-	Definitions of Vegetation Strata:
6			-	Tree - Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
В				Sapling/shrub - Woody plants less than 3 in. DBH
)				and greater than or equal to 3.28 ft (1 m) tall.
10,				Herb - All herbaceous (non-woody) plants, regardless of
11				size, and woody plants less than 3.28 ft tall.
				Woody vines - All woody vines greater than 3,28 ft in
12	100	4.5.4		height
2011 -	100	= Total Co	over	
Woody Vine Stratum (Plot size: 30 H r)				
1		_		N 9-1 D
2				Hydrophytic Vegetation
3				Present? Yes No
4				
t.	0	= Total Co	Wer	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depleted Interval Sand Sand Grains. To MS Sand Sand Sand Sand Sand Sand Grains. To Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydrix Soils Indicators for Problematic Hydrix Soils Sand Sand Sand Sand Sand Sand Sand Sand	Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature	Type ¹	Loc2	-	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Pl=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solis*: Indicators for Problematic Hydric Solis*: Indicators for Problematic Hydric Solis*: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, Coast Prairie Redox (A16) (LRR K, L, MLRA 1498) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 1498) 5 cm Mucky Peat or Peat (S3) (LRR K, L, M) Stratified Layers (A5) Loarny Mucky Mineral (F1) (LRR K, L) Sardy Mucky Surface (A12) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Peldmont Floodplain Solis (F19) (MLRA 1498) Sandy Redox (S5) Redox Dark Surface (F7) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 148) Sandy Redox (S5) Contract (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Name of the properties of the problematic (Sa) (LRR R) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	(inches)			Color (moist)	%	Type.	Loc	Texture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. 1	7 10					-			£
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	1-13	10 YE 9/3	4.5	10 NZ 9/6	_5_		_w	510	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	13+								compaction
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 1498) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators for Problematic Hydric Soils?: 1 cm Muck (A10) (LRR K, L, MLRA 149B) Dark Surface (S7) (LRR K, L, M) Dark Surface (S7) (LRR K, L, M) Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L) Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 145, 145, 145, 145, 145, 145, 145									,
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Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 1498) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators for Problematic Hydric Soils ³ : 1 min Laters for Problematic Hydric Soils ³ : Coast Prairie Redox (A10) (LRR K, L, R) Coast Prairie Redox (A16) (LRR K, L, R) Dark Surface (S7) (LRR K, L, M) Mucky Mineral (F1) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L, M) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L, R) Redox Dark Surface (F6) Redox Dark Surface (F7) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 144A, 14		-							
Histosol (A1)			letion, RM	=Reduced Matrix, MS	=Masked	Sand Gra	ains.		
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L, M) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface	A military and								
Black Histic (A3)						(S8) (LRR	R,		
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thir Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (F7) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L) Hodicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Type:						RR R. MI	RA 149B)		
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 1 Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 1 Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:									
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Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 1 Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 1 Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:			e (A11)		the state of the s				
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Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:									
Restrictive Layer (if observed): Type:	_ Dark Sur	ace (S7) (LRR R, N	ALRA 1491	5)				Other (Explain in Remarks)
Type:NA	Indicators of I	hydrophytic vegetat	ion and we	tland hydrology mus	t be prese	nt, unless	disturbed o	r problematic	-
	Restrictive La	ayer (if observed):					7		
Depth (inches): No	Type:	NA					- 10	- W-	· ·
	Depth (inch	nes):	-00					Hydric Soil	Present? Yes No
Remarks:	Remarks:								



Ditch Field ID	: Ditch	-001		
Data Point ID:	DP- d	<i>yc</i> (6	Date:	1)/12/18
Project Name:	North	re Word Farm		
Evaluator(s):		y Inland M.	ke Baskdo	
County:	Orleans	,		State: Ny
Jurisdictional:	Yes [No	X	,
Lat: 45.1573	9108		Long:	-78. 21510205
	Juris	dictional D	eterminati	on Criteria
Yes No		:: Jur	isdictiona	Attribute
γ 1) Ι	Defined Be	d and Bank	/Channel F	Present
× 2) (Ordinary H	igh Water N	/lark Prese	nt
	Direct or In	direct Conn	ection to a	Traditional Navigable Water
4) :	Supplemer	nting Attribu	tes (Must S	Satisfy At Least 1 of 5 Below)
) Presence Water	of Relative	ly Perman	ent Flowing or Standing
'× b		Stream Th	at Has Bee	en Altered
	,	d in a Juris		
Y d) Connects	Two or Mo	re Jurisdic	tional WOTUS
y e) Drains Na	atural Wate	r Bodies (ir	ncluding wetlands) into the
	tributary	system of a	TNW	
	. L.: / \$100 Your	Hydrologic	Characte	ristics
Surface Water	1977-110 TO TOTAL STATE OF THE	Present		Absent 🗸
Perceptible Flo	w:	Present		Absent X
Water Depth a	t Thalweg:	. 1	t	
Wetted Perime	eter Width:	\$,	
Flow/Gradient	Direction:	Sul	h	·
	Ge	omorpholo	gic Chara	cteristics
Primary Substi	ate Class:	<u>S:</u> L		
		Width	(ft.)	
		at DP	Max	
	OHWM [•-	_	
Тор	of Bank [(y '	L'	
Bank Slope [R	eported as	% or Horiz	ontal:Vertic	cal(H:V)]:
	_eft: ເຽັ	-26.7990		·
Rig	ght: 🦳 🎉 "	- 46.63%	<u> </u>	
	-			



Data Point ID: DP- GCG

Bank Stability So	ummary
Left Bank: Seall - vegetated to	Bander, compacted with
	. *
Piok Pouls A	
Right Bank: dove	<u> </u>
Habitat Charact	
Aquatic Vegetation Present: Ye If Yes, Describe:	es No 🔀
Aquatic Organisms Observed: Ye If Yes, Describe:	es No 🛪
Terrestrial Organisms Observed: Ye If Yes, Describe:	es No 🗸
Riparian Charac	teristics
Riparian Vegetation Description (0' to 150' fr Left: 6:156' - PSS Wolfard Buchts	
Right: _ Some on above	
Associated Wetland Present: Ye If Yes, ID:	es 🕎 No 🔙
Associated Artificial Drain(s) Present: Yes	No No
Supplemental Notes &	Comments:
As Bore Dich for in Mich multiple do	
South sinte ST-COS	8 9 1
**************************************	7 - M



Duch Flei	a id: <u>ditch</u>	004		
Data Point	ID: DP-	60 g	Date:	11/13/18
Project Na	me: Hall	age hind	•	
Evaluator(k Buskeda	
County:	Osleuns "			State:/_/
Jurisdiction	nal: Yes [No [У	
Lat: <u> </u>	18491002		Long:	-78.2116676
447.4	Juris	dictional De	terminati	on Criteria
Yes No	A THE STATE OF THE	Juris	sdictional	Attribute
X	1) Defined Be			
<u> </u>	2) Ordinary H			
Х			-	Traditional Navigable Water
				Satisfy At Least 1 of 5 Below)
_X	a) Presence Water	of Relativel	y Permane	ent Flowing or Standing
X		Stream Tha	t Has Bee	en Altered
X		d in a Jurisd		
X				tional WOTUS
				ncluding wetlands) into the
X		system of a	•	,
William Communication of the C		Hydrologic	Characte	ristics
Surface W	ater:	Present		Absent X
Perceptible	e Flow:	Present [Absent X
Water Dep	th at Thalweg:	_		
Wetted Pe	rimeter Width:	3'		
Flow/Grad	ient Direction:	Sec16	, Than E	95/
	Geo	omorpholog	jic Charac	cteristics
Primary Su	ıbstrate Class:		,	
	Г	Width	(ft.)	
	-	at DP	Max	
	онум Г	- '	-	
	Top of Bank	3'	3/	
Bank Slope	e [Reported as	% or Horizo	ntal:Vertic	al(H:V)]:
	Left: 15°	· 26.79 al		
	Right: 15°	- 26,79°16		



Data Point ID: DP- 60%

Bank Stab	ility Summary
Left Bank: State - n	regetited Banter
	
Right Bank: Sove on	above
	haracteristics
Aquatic Vegetation Present: If Yes, Describe:	Yes No 🗡
Aquatic Organisms Observed: If Yes, Describe:	Yes No X
Terrestrial Organisms Observed: If Yes, Describe:	Yes No y
Riparian C	haracteristics
Riparian Vegetation Description (0' to Left: 6'-156'- Rendential	
Right: 1561 - ag. field	
Associated Wetland Present: If Yes, ID:	Yes No A
Associated Artificial Drain(s) Present	t: Yes No
Supplemental N	Notes & Comments:
1) it is sure along from field,	no real right of wales it to



Ditch Field ID: Ditch - 003
Data Point ID: DP-011 Date: 11/13/18
Project Name: Ikiduse vind
Evaluator(s): Inm Inland Mile Baskdo
County: Others State:
Jurisdictional: Yes No 🔀
Lat: 43.18267431 Long: -78.21198485
Jurisdictional Determination Criteria
Yes No Jurisdictional Attribute
y 1) Defined Bed and Bank/Channel Present
X 2) Ordinary High Water Mark Present
y 3) Direct or Indirect Connection to a Traditional Navigable Water y 3. □ Traditional Navigable Water y 3. □ Traditional Navigable Water y 3. □ Traditional Navigable Water y 3. □ Traditional Navigable Water y 4. □ Traditional Navigable Water y 5. □ Traditional Navigable Water y 6. □ Traditional Navigable Water y 6. □ Traditional Navigable Water y 7. □ Traditional Navigable Water y 8. □ Traditional Navigable Water y 9. □ Traditional Navigable
4) Supplementing Attributes (Must Satisfy At Least 1 of 5 Below)
a) Presence of Relatively Permanent Flowing or Standing
├ Water
b) A Natural Stream That Has Been Altered
c) Excavated in a Jurisdictional WOTUS
d) Connects Two or More Jurisdictional WOTUS
e) Drains Natural Water Bodies (including wetlands) into the
tributary system of a TNW
Hydrologic Characteristics
Surface Water: Present Absent X
Perceptible Flow: Present Absent X
Water Depth at Thalweg:
Wetted Perimeter Width: N/A
Flow/Gradient Direction: East
Geomorphologic Characteristics
Primary Substrate Class: ς: ζ
Width (ft.)
at DP Max
OHWM -
Top of Bank 6' 6'
Bank Slope [Reported as % or Horizontal:Vertical(H:V)]:
Right: 55° ~ 143.81%



Data Point ID: DP- eta ou

Bank Stability Summary	
Left Bank: Stube - Vegileted Banker & compacted soil	l
Right Bank: Same on above	
Habitat Characteristics	
Aquatic Vegetation Present: If Yes, Describe: Yes No >	
Aquatic Organisms Observed: If Yes, Describe: Yes No No	
Terrestrial Organisms Observed: Yes No Fig. 16 Yes, Describe:	
Riparian Characteristics	
Riparian Vegetation Description (0' to 150' from TOB):	pullipropagation was assessed up to the second of the seco
Left: 01-30' - Wetland, Reed Canary grans	
30'-150- Volund field, velvet Pent, shestel	
Right: 0'-30' - Welland, Reed Company gran	/
30'-150' - Open field with canadam golden nod an should heregrachle	1 une
Associated Wetland Present: Yes X No	
If Yes, ID: Wt-ocz	
Associated Artificial Drain(s) Present: Yes No No If Yes, ID:	
Supplemental Notes & Comments:	
	other duck
that sum along with a field	
No water war observed at him of delineation	



Ditch Fiel	a id: Ditc	n 00~1		
Data Poin	t ID: DP-	014	Date:	At/13/18
Project Na	ame: 👢 👢	es hand		
Evaluator		y Ireland M.	a Bastedo	
County:	Olleans			State: VY
Jurisdictio	nal: Yes	No No	×	
Lat: <u>43</u>	179 60741		Long:	-78. 213031
	Juri:	sdictional D	eterminati	on Criteria
Yes No		Jur	isdictional	Attribute
γ	1) Defined B	ed and Bank	c/Channel F	Present
人	2) Ordinary I	High Water N	/lark Prese	nt
X	3) Direct or I	ndirect Conr	ection to a	Traditional Navigable Water
				Satisfy At Least 1 of 5 Below)
$ _{X}$	a) Presend Water	e of Relative	ely Perman	ent Flowing or Standing
У		al Stream Th	at Has Bee	en Altered
Y		ed in a Juris		
/	. ,			tional WOTUS
	 			ncluding wetlands) into the
		system of a	•	,
	and the starting of the starti	Hydrologid	C haracte	ristics
Surface W	/ater:	Present		Absent X
Perceptibl	e Flow:	Present		Absent /
Water De _l	oth at Thalweg	: <u>///</u>	<u> </u>	
Wetted Pe	erimeter Width	: <u>///</u>	<u>'A</u>	
Flow/Grad	lient Direction:		ih	
	in the state of the Go	omorpholo		cteristics
Primary S	ubstrate Class	: <u>S:L</u> 0	<u></u>	
		Width	(ft.)	
		at DP	Max	
	OHWM	٠.	_	
	Top of Bank) ·	J'	
Bank Slop	e [Reported a	s % or Horiz	ontal:Vertic	eal(H:V)]:
•	Left:		7 90%	
	Right:		. 79°6	
				



Data Point ID: DP- 034

Bank Stabili	ty Summary
Left Bank: Sulfo - Vey	duted banker, compacted rock
-	,
Right Bank: Sure or abo	
·	
Habitat Cha	racteristics
Aquatic Vegetation Present: If Yes, Describe:	Yes No 🗶
Aquatic Organisms Observed: If Yes, Describe:	Yes No 🛌
Terrestrial Organisms Observed: If Yes, Describe:	Yes No Y
Riparian Ch	aracteristics
Riparian Vegetation Description (0' to 1	
Left: 0'-150' - Wetlun 004	Dogland, Sedger, Catlant
	V
Right: 0'-50' - 1/41 / 1004 -	10-1-2 Pala (++1
Right: 0'-50' - Wether 004 -	not knewym
Associated Wetland Present: If Yes, ID: WL-004	Yes No No
Associated Artificial Drain(s) Present: If Yes, ID:	Yes No 🔀
Supplemental No	tes & Comments:
Ditch rum strough WC-004.	
No vales present at time of delina	alvirx
/	



Ditch Fie	ld ID:	Ditch -006				, ,						
Data Poir	nt ID:	DP-032			_ Date	: <u>6/3/19</u>						
Project N		Heritage Wind Fa	_ Project #									
Evaluator	r(s):	Michael Bastedo, kyk Kozlowski										
County:		Orleans County	· · · · · · · · · · · · · · · · · · ·		_ State	: New York						
Jurisdiction	onal:	Yes	✓ No [
Lat:	43.1441	196	l	_ong:	78.232279	3						
		Jurisdictio	nal Determin	nation Cri	iteria							
Yes	No∷		Jurisdictional Attribute									
		1) Meets the US			•							
		"a water that cor										
\searrow		(including an importance of the	•			and an ordinary						
		high water mark		ilois oi a b	eu anu bank,	and an ordinary						
		2) Supplementing		Must Satis	fy At Least	1 of 5 Below)						
	×	a) Has Perenni	al Flow;									
	×	b) Has Intermit	tent Flow and	l is a Relo	cated Tribu	tary;						
	<u>×</u>	c) Has Intermit			*************							
\times		1	d) Has Intermittent Flow and Drains Natural Water Bodies									
		(including w										
	\		eral Flow and	is Excava	ated in or Re	elocated within a						
	×	Tributary.										
Pally and The		Hydro	ologic Chara	cteristics								
Flow Reg	ime:	Per	rennial 🔀	Intermitt	ent	Ephemeral						
Surface V	Vater:	P	resent 🔀	Abs	ent							
Perceptib	le Flow:	Р	resent ×	Abs	ent							
Water De	pth at Tha	ılweg:		inche	S							
Wetted Pe	erimeter V	Vidth:	\overline{z}	feet								
Flow/Grad	dient Direc	ction:	1	10/16								
		Geomorp	ohologic Cha		ics							
	Primary	Substrate Class:	Silt	·								
			Wie	th (feet)								
			at DP	Min	Max							
		OHWM	7	г	ч							
		Top of Bank	6	Ч	8							
Bank Slop	e [Report	ed as % or Horizo	ntal:Vertical(l	H:V)]:								
	•	Left:										
		Right: 1:	1									



Data Point ID: DP- 03レ

		nk Stability Su			
Left Bank:	Stable: No	@105.0m, 10	ved Vez	gibne beds	t lank
Right Bank:	Some as a	bove 1			
	Ha	bitat Characte	ristics		
Aquatic Vegetation If Yes, De	Present:		Yes [□ No 🔀	
Aquatic Organisms If Yes, De			Yes	No 🔀	
Terrestrial Organism			Yes [No 🔀	
	Rip	arian Charact	eristics		
Riparian Vegetation Left:	Description (0' to	o 150' from TO	B): Eld 6	124 /2 16 12)
Right:	Garl as a	bove T			
If Yes, ID	Artificial Drain(s)	√ -013 (่ <i>⊾⊾</i> -or s) Present:	Yes [), Wetland Yes [_) _
	Supplen	nental Notes 8	Commen	ts;	
Wether-013 do	in to ditch.	Wetland-014	drems f	o diten	



Ditch Fie	ld ID:	Ditch oc 8						b				
Data Poir	nt ID:	DP- 037				Dat	e:	6/11/19				
Project N	ame:	Heritage Wind	Project	#:	185050							
Evaluator	r(s):	Jimmy Ireland/	Tristen P	eterso	n .	-						
County:		Orleans County	1			Stat	e: _	New York				
Jurisdiction	onal:	Yes		No [Ж							
Lat:	43.1824	179		L	_ong: _ ~ 7	78.149506	•					
		Jurisdictional Determination Criteria										
Yes	No :		ingstate in payor has been most afficed	Edition No. Section	ictional A	unicongesu, full a at the nicolar						
		1) Meets the U				•						
y .		"a water that o				•	_	1				
κ		(including an i	-	-				•				
		presence of the high water ma		maica	itors of a be	ed and bani	k, ar	id an ordinary				
		2) Supplement		utes (I	/Just Satis	fy At Leas	t 1 d	of 5 Below)				
	Ж	a) Has Perer			· · · · · ·	<u></u>	-	_,/				
	×	b) Has Intern	nittent Flo	w and	is a Relo	cated Trib	utar	y;				
	×	c) Has Interm	nittent Flo	w and	is Excava	ated in a T	ribu	tary;				
		d) Has Intern	nittent Flo	w and	Drains N	atural Wat	er E	Bodies				
	×	(including										
	×		meral Flo	w and	is Excava	ited in or F	Relo	cated within a				
		Tributary.										
		··· Hyo	Irologic (Chara	cteristics							
Flow Reg	ime:	F	erennial		Intermitte	ent		Ephemeral x				
Surface V	Vater:		Present	¥	Abs	ent						
Perceptible	le Flow:		Present	х	Abse	ent						
Water De	pth at Tha	lweg:			"inches	5						
Wetted Pe	erimeter V	√idth:		3	<u>'</u> feet							
Flow/Grad	dient Direc	tion:		Ę,	ist							
		Geomo	rphologi	ic Cha	racteristi	cs						
	Primary	Substrate Class	s: <u>(</u>	s:L								
				Wie	th (feet)		-					
			at E)P	Min	Max						
		OHW	V 3	1	3'	' フ'						
		Top of Ban	k <u> </u>	'	4'	8.						
Bank Slop	e [Report	ed as % or Horiz	zontal:Ve	rtical(l	H:V)]:							
·	-	Left:										
		Right:	ď°									



Data Point ID: DP- 637

	Bank	Stability Sum	mary		
Left Bank: _	Vnstall - worked and	t lank			
- Right Bank: _	8 110				
Mgilt Dalik	Demlan alove				
_					
	. Habit	tat Characteri	stics		1 (1 (1) 1 (1)
Aquatic Vegetation F			Yes	No 🔻	
Aquatic Organisms O		Tudpoles	Yes 🔀	No	
Terrestrial Organism If Yes, Des			Yes	No 🗡	
		ian Character	istics		
Riparian Vegetation	Description (0' to 1	50' from TOB));		
Left: _	0'-150'- Conf	cel d	<u> </u>		
_				· · · · · · · · · · · · · · · · · · ·	
– Diaht:	Same on above	<u> </u>		- · · · · · · · · · · · · · · · · · · ·	
Rigit	Dame on above				
_ _	Manager and the second				
Associated W	Vetland Present:		Yes	No 🗶	
Associated A	Artificial Drain(s) Pr		Yes 😾	No	
If Yes, ID:	AD-01	8			
	Supplemen	ntal Notes & (Comments:		
Dus och dannage	delch flows inte	DT-010			
			<u></u>		



Ditch Fie	ld ID:	Ditch 01	0						
Data Poir	nt ID:	DP- 038				Dat	e:	Clirlia	
Project N	ame:	Heritage Wind Farm				Project		185050	
Evaluator	r(s):			risten Pete	erson			•	
County:		Orleans (County				Stat	e:	New York
Jurisdiction	onal:	`	Yes	<u>x</u> 1	/o <u> </u>	!			
Lat:	43.180	544			Long	g: <u> </u>	78.145301		
18673		i de Jui	risdictio	nal Deter	minati	on Cri	teria		
Yes	No			. Jur	isdicti	onal A	ttribute		
				ACE Defin					
							•	-	nother water
X		1		-	-		at is charac		•
			ater mark		uicators	o or a be	eu anu bani	۱, a	nd an ordinary
		· · · ·			s (Mus	t Satis	fy At Leas	t 1	of 5 Below)
				ial Flow;	`				, , , , , , , , , , , , , , , , , , , ,
		b) Has	Intermit	tent Flow	and is	a Relo	cated Tribi	uta	ry;
		c) Has	Intermit	tent Flow	and is I	Excava	ated in a T	ribu	utary;
V		d) Has	Intermit	tent Flow	and Dr	ains N	atural Wat	er l	Bodies
X		(inc	luding w	etlands);					
			-	eral Flow a	and is E	Excava	ited in or F	Relo	ocated within a
		Trib	outary.						
			Hydro	ologic Ch	aracte	ristics	() () () () () () () () () ()		
Flow Reg	ime:		Pe	rennial 🗌	Int	termitte	ent 🗴		Ephemeral
Surface V	Vater:		P	resent	ĸ	Abs	ent		
Perceptib	le Flow:		Р	resent x		Abse	ent		
Water De	pth at Tha	lweg:			24"	inches	3		
Wetted Pe	erimeter V	Vidth:			15'	feet			
Flow/Grad	dient Direc	ction:			Soun				
			Beomor	ohologic (Charac	teristi	cs		
	Primary	Substrate	e Class:	S	L				
					Width	(feet)			
				at DP	<u> </u>	∕lin	Max		
			OHWM	15'		'3 '	29'2"		
		Тор	of Bank	70'	19	, '	Ph 79		
Bank Slop	e [Report			ntal:Vertic	al(H:V))]:			
		Left:	70°						
		Riaht:	700						



Data Point ID: DP- O38

Bank Sta	ability Summary
Left Bank: Salt. Depot regul	oled banks
Right Bank: Some on whove	
<u> </u>	
Habitat	Characteristics
Aquatic Vegetation Present: If Yes, Describe:	Yes No 🖟
Aquatic Organisms Observed: If Yes, Describe:	Yes No x
Terrestrial Organisms Observed: If Yes, Describe:	Yes No Y
Riparian	Characteristics
Riparian Vegetation Description (0' to 150'	from TOB):
Left: 0'-150' - Com field	/
Right: Same on alove	4.0
Night. Sank in alter	The second secon
Associated Wetland Present: If Yes, ID:	Yes No Y
Associated Artificial Drain(s) Prese	ent: Yes 💢 No 🔙
If Yes, ID: <u>AĎ - ⊘/9</u>	
Supplementa	Notes & Comments:
Dog at juiced tickout with Flows so	Mr. Multiple ditales Flor into DT-010.

NAME OF THE PROPERTY OF THE PR	



Ditch Fie	Id ID:	Ditch OII								
Data Poir		DP- 039		Date [,]	6/11/19					
Project Na						185050				
Evaluator		Jimmy Ireland/ Tr		on	Project #:	100000				
County:	(-).	Orleans County			State:	New York				
Jurisdiction	nal·	Yes	No							
Lat:					78.143475					
Jurisdictional Determination Criteria										
Yes	No	Jurisaicuo	27 E TO GRADE ET PERSON EN YSS 467 E	nation Cri lictional A	#6081955508] \$455555318530518 - CRASS, 555 - #69380 & Es					
		1) Meets the USA	HANNA CONTRACTOR SERVICE STATE AND ADDRESS OF THE	ilia interprima con il più restitui	A GOTHER KONDANDE NOOR BUILDING SEPTEMBER					
		"a water that cor			•	nother water				
\ \ <u>\</u>		(including an imp			•					
λ		presence of the	•			*				
		high water mark				:				
		2) Supplementing	g Attributes (Must Satis	fy At Least 1	of 5 Below)				
	ኦ	a) Has Perenni	al Flow;							
	À	b) Has Intermit	tent Flow and	d is a Relo	cated Tributa	ry;				
·	Х	c) Has Intermitt	ent Flow and	d is Excava	ated in a Tribu	ıtary;				
	/	d) Has Intermit	tent Flow and	d Drains N	atural Water	Bodies				
	Υ	(including w	etlands);							
	k	e) Has Epheme	eral Flow and	l is Excava	ited in or Relo	ocated within a				
	^	Tributary.								
		Hydro	ologic Chara	acteristics						
Flow Reg	ime:	Per	ennial	Intermitte	ent	Ephemeral 🗶				
Surface V	Vater:	Р	resent 🗡	Abs	ent					
Perceptib	le Flow:	Р	resent x	Abs	ent					
Water De	pth at Tha	alweg:	3	inches	3					
Wetted Pe	erimeter V	Vidth:	6	2feet						
Flow/Grad	dient Dire	ction:	<u> </u>	£	110					
		Geomorp	hologic Ch	aracteristi	CS					
	Primary	Substrate Class:	S:L							
			W	idth (feet)						
			at DP	Min	Max					
		OHWM	2'	J'	9'					
		Top of Bank	3,	٥.	9'					
Bank Slor	e (Repor	ted as % or Horizo	ntal:Vertical	H:V)1:						
	F1-3.	Left: /0°		/1-						
		Right: 10°								



Data Point ID: DP- ০১৭

		Bank S	tability	Summ	ary 🖖 🕆				i ii
Left Bank:	Vostable-	Washed out	banks						
Right Bank: _ -	Same as	alore.						;	
		Habita	t Chara	cteristi	cs .	17 29 27 47 1			Ž,
Aquatic Vegetation If Yes, De				,	Yes] No [אַ		
Aquatic Organisms If Yes, De			Tudalis		Yes 🔀] No [
Terrestrial Organism	ns Observed	d:			Yes] No [ĸ		
· Helio			n Chara	cterist	ics				
Riparian Vegetation Left:	Description			ГОВ): 					_
Right:	& Save as	above.				-			
-		.							_
Associated V If Yes, ID:		sent:		,	Yes] No [x		
Associated A	Artificial Dra	in(s) Pres	sent:	Y	es	No [<u>k</u>		
	Sup	plementa	al Notes	s & Cor	nments				
Flows directly .	16 OT-01	W. Dra.	nage a	1.44.					
•									



Ditch Fie Data Poir		Ditch Gi(o		– Date:	6/13/19				
Project N		Heritage Wind Farm		Project #:	185050				
Evaluator		Jimmy Ireland/ Tristen F	eterson						
County:	· /	Orleans County		State:	New York				
Jurisdiction	onal:	Yes	No 🔀	-					
Lat:	43.1736	.77	Long: 7	78 137747					
		Jurisdictional De	termination Cr	iteria					
Yes	.≟⊪No⊸		Jurisdictional <i>i</i>	Attribute					
Х		1) Meets the USACE Definition of a Tributary "a water that contributes flow, either directly or through another water (including an impoundment) to a water that is characterized by the presence of the physical indicators of a bed and bank, and an ordinary high water mark"							
		2) Supplementing Attrib	utes (Must Sati	sfy At Least 1	of 5 Below)				
	メ	a) Has Perennial Flov	/ ;						
	У	b) Has Intermittent Flo	ow and is a Relo	ocated Tributa	ary;				
	メ	c) Has Intermittent Flo	ow and is Excav	ated in a Trib	utary;				
	×	d) Has Intermittent Flo (including wetlands		latural Water	Bodies				
	>	e) Has Ephemeral Flo	w and is Excav	ated in or Rel	ocated within a				
	/	Tributary.							
		Hydrologic	Characteristics	S Translation					
Flow Reg	ime:	Perennial	Intermit	tent	Ephemeral 🔀				
Surface V	Vater:	Present	Abs	sent 🗴					
Perceptib	le Flow:	Present	Abs	sent 🗸					
Water De	pth at Tha	lweg:	O" inche	s					
Wetted Po	erimeter V	/idth:	O' feet						
Flow/Grad	dient Direc	tion:	East						
		Geomorpholog		tics					
	Primary	Substrate Class:	S; L						
			Width (feet)						
		at I	OP Min	Max					
		OHWM	1' 1'	(1					
		Top of Bank 3	1 31	3'					
Bank Slop	oe [Report	ed as % or Horizontal:Ve	ertical(H:V)]:						
		Left: 460							



Data Point ID: DP- 045

		ability Su	immary
Left Bank:	Stubl - vegetited	carperd	banks
-		··	
- Right Bank:	Some an about	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
		···	
-			
	Habitat	Characte	eristics
Aquatic Vegetation I If Yes, De			Yes No 🔏
Aquatic Organisms of If Yes, De			Yes No 🔀
Terrestrial Organisms Observed: If Yes, Describe:			Yes No 🗶
	Riparian	Characte	eristics
Riparian Vegetation	Description (0' to 150	rom TOI	B):
Left: _	0'-156'. Ag feld		
-			- Andrews
- Right:	0'-15C' - Water	Inda one	0
rvigin	U 130 - Wondy	1000	
- -			
Associated V If Yes, ID:	Vetland Present:		Yes No x
Associated A	Artificial Drain(s) Preso		Yes No
	Supplementa	andreas has already than to administrate and a constantial	Comments:
Man juisdella	and form drainage &	!.kh.	
	0		
-			APA APA



Ditch Fie	ld ID:	Ditch -070					
Data Poir	nt ID:	DP-04a			Da	ite:	06/20/19
Project N	ame:	Herikae Wmd Farm Pro			Project	t#: 🔟	85050
Evaluator	r(s):	Mike Bastedo and Kyle Kozlowski					
County:		Erie County State: New York				ew York	
Jurisdiction	onal:	Yes	 ✓ No				
Lat:	43.179	663		Long:	78.209	375	
	Africa de la companya r>La companya de la co	Jurisdictio	nal Determ	ination Cri	teria		ka salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah
Yes	No		fieldstating out a source action to the Care St.	dictional A	Restriction in the state of the restricted of		
		1) Meets the US/					
		"a water that cor			-	-	
	·	(including an imp	•				-
X		presence of the high water mark	· -	cators or a be	eu anu bai	ik, and	an ordinary
		2) Supplementing		(Must Satis	fy At Lea	st 1 of	5 Below)
	X	a) Has Perenni	al Flow;				
	×	b) Has Intermit	tent Flow ar	id is a Relo	cated Tril	outary;	
	>	c) Has Intermit					
. /		d) Has Intermittent Flow and Drains Natural Water Bodies					
<u> </u>		(including wetlands);					
	×	e) Has Ephemeral Flow and is Excavated in or Relocated within a					
		Tributary.					
	i i i i i i i i i i i i i i i i i i i	Hydro	ologic Char	acteristics	in the Edition		
Flow Reg	ime:	Per	rennial	Intermitte	ent 🔀	E	Ephemeral
Surface V	Vater:	Р	resent 🔀	Abse	ent 🔲		
Perceptib	le Flow:	Р	resent 🔀	Abse	ent		
Water De	pth at Tha	lweg:	_1~	inches	5		
Wetted Pe	erimeter V	Vidth:		3 feet	•		
Flow/Grad	dient Direc	ction:	_5	outh			
		Geomor	ohologic Cr	naracteristi	cs		
	Primary	Substrate Class:	5:17				
			W	idth (feet)			
			at DP	Min	Max		
		OHWM	3	3	Ч		
		Top of Bank	5	5	6		
Bank Slop	e [Report	ed as % or Horizo	ntal:Vertical	(H:V)]:			
		Left: 기: 7		<u>.</u>			
		Right: 1:7					



Data Point ID: DP- อนๆ

The state of the s	Bank Stal	oility Sumr	nary			
Left Bank: Shobe: んしゅ	Severe	e105,000	, Pooled	Veg	alone	bentes
						<u>, </u>
	•		·			
Right Bank: <u>Same as</u>	about	2 1				
	•					
	Llabitat (haracteris	liae!	di la sa Kalansi		
。 第二次表示的是由于一种的,但是是一种的,是是一种的,是一种的,是一种的,是一种的,是一种的,是一种的,是一种	mapitat C	Harasteris	THE RESIDENCE OF THE PARTY OF T	Na EVZ		
Aquatic Vegetation Present: If Yes, Describe:			Yes	No 🔽]	
Aquatic Organisms Observed:			Yes 🔀	No [_
If Yes, Describe:	Tad	poles				,
Terrestrial Organisms Observed:			Yes	No 🔀		
If Yes, Describe:		• .				
Figure 1	Riparian (Characteris	stics		建制的	
Riparian Vegetation Description (6						
Left: 0-1601 L	1 pland	deciduans	Lorres	+		
D: 14	1		1 Freld		*****	
Right: <u>0-150: Ac</u>	the a	given 1 ters	·1 Melo			,
·						
Associated Wetland Prese	nt:		Yes 🔽	No	7	
If Yes, ID:			ريخي ۲۰۰			
Associated Artificial Drain	(s) Presei	nt:	Yes 🔽	No 🗆		
	2-030					
Suppl	emental	Notes & Co	omments:			
Flows mto DT-004 t					SANTE CONTRACTOR AND AND AND AND AND AND AND AND AND AND	N. C. Stranger S. C. Stranger S. Stranger
	0					



Stream Field ID: 5 T-001
Data Point ID: Date: 11/8/18
Project Name: Nectore wind
Evaluator(s): Irmmy Ireland, M. KeBasted
County: Grant State: NY
Stream Name: Tributaries of Oak Orehard Creek
State Classified: Yes X No Not Applicable If Yes, Classification:
Lat: 43.17301156 Long: -78.16966033
Hydrologic Characteristics
Flow Regime: Perennial X Intermittent Ephemeral
Surface Water: Present X Absent
Perceptible Flow: Present Y Absent
Water Depth at Thalweg: 3,5 '
Wetted Perimeter Width:
Flow/Gradient Direction: 5001h
Geomorphologic Characteristics
Primary Substrate Class: 5.L
Width (ft.)
at DP Max
OHWM 8' S'
Top of Bank $S' S'$
Bank Slope [Reported as % or Horizontal:Vertical(H:V)]:
Left: <u>76° - 279°</u> (
Right: 70° - 277%
Bank Stability Summary
Right: Un shale - un veybated undersout hanks
Left: Some on above



Data Point ID: 1) Proce

Habitat Char	racteri	stics
Aquatic Vegetation Present: If Yes, Describe:	Yes	No
Aquatic Organisms Observed: If Yes, Describe:	Yes	□ No ✓
Terrestrial Organisms Observed: If Yes, Describe:	Yes	No 🗸
Riparian Cha	racter	istics
Riparian Vegetation Description (0	' to 150	D' from TOB):
Right: Uphul deadiers fourt,	Suzm	Pagle / Barrewood
		1.
Associated Wetland Present: If Yes, ID:	Yes	No 🗡
Associated Artificial Drain Present: If Yes, ID:	: Yes	s
Jurisdictional Connectivity/	Supple	emental Comments:
Connect in DEC williams in	Nouh	and another Strum in



Stream Fie	ld ID: 5	T-002		,	
Data Point	ID: 1) 1	0.602	Date: V	1/09/18	
Project Nan	ne: <u>//,</u>	hus nine	1		
Evaluator(s): <u>IV</u>	mmy Ivel	ud, Mr	be Basted	2
County: _	Orbeans			State: \	<i>Y</i>
Stream Nar		Butanes s		Orchard	Creek
State Class		No L	Not A	\pplicable	
Lat: 43.17	s, Classificat หรวบหิโ	uon	Long: -	78.153166	v7
					#100253###################################
	нуа	rologic Cha ———	aracterisi	IICS	
Flow Regim	ne: Peren	nialIr	ntermitten	it 🟋 Eph	emeral
Surface Wa	ater:	Present	AI	bsent 🔀	
Perceptible	Flow:	Present	AI	bsent 🔀	
Water Dept	h at Thalwe	g:	2.5		
Wetted Per	imeter Width	n:	6'		
Flow/Gradie	ent Direction	: Enst	<u></u>		
	Geomo	rphologic (Characte	ristics	
Primary Su	ubstrate Clas	ss: <u> </u>	L		
		Width	(ft.)		
		at DP	Max		
-	OHWM	i'	6'		
7	Γop of Bank	60	6		
Bank Slope	[Reported a	ıs % or Hori	zontal:Ve	ertical(H:V)]:	i I
		56 - 1429	<u>; </u>		
	Right: 55°	" - 147°	ι,		
	Ва	nk Stability	Summa	ry 🔠 💮	
Right: _	Sible V	eg Bonler	anda	emperety!	wih
					
		<u> </u>			
Left: _	Some or	above			
_			· · · · · · · · · · · · · · · · · · ·		



Data Point ID: North



Stream Field ID: \$7-003 Data Point ID:
Hydrologic Characteristics
Flow Regime: Perennial Intermittent X Ephemeral
Surface Water: Present Absent X
Perceptible Flow: Present Absent X
Water Depth at Thalweg:
Wetted Perimeter Width: 5'
Flow/Gradient Direction: West
Geomorphologic Characteristics
Primary Substrate Class: S:L
Width (ft.)
at DP Max
OHWM 5' 5' Top of Bank 5' 5'
Bank Slope [Reported as % or Horizontal:Vertical(H:V)]:
Right: $\frac{\partial \mathcal{O}^{*}}{\partial \mathcal{O}^{*}} = 36.14$
Bank Stability Summary
Right: Subly - Negothel Banks, compacted soils
Left: Some on above



Data Point ID: DP-as-

Habitat Chara	octeristics
Aquatic Vegetation Present: If Yes, Describe:	Yes No x
Aquatic Organisms Observed: If Yes, Describe:	Yes No 7
Terrestrial Organisms Observed: If Yes, Describe:	Yes No y
Riparian Char	acteristics
Riparian Vegetation Description (0' Left: William - Shun Month Red Onin Dogwood, New	
Right: Some on above	
Associated Wetland Present: If Yes, ID: Associated Artificial Drain Present:	,
If Yes, ID: 1)-005	
Jurisdictional Connectivity/S	Supplemental Comments:
and connect to DEC Welland.	nd, continues to its northern
Solved whemler and then y	my normally she street
- The amazin Spirit	



Stream Field ID: ST-064 Data Point ID: ND-007 Date: 11/12/18 Project Name: Horkey hand form Evaluator(s): Jimmy Inland / N. Mr. Bushedo County: Orleans State: NY Stream Name: Tribuleres of Oak Orchard Creek State Classified: Yes X No Not Applicable If Yes, Classification: C Lat: US. 16684591 Long: -78.21575746
Hydrologic Characteristics
Flow Regime: Perennial Intermittent Ephemeral
Surface Water: Present Absent Absent
Perceptible Flow: Present Absent Absent
Water Depth at Thalweg: 349 40
Wetted Perimeter Width: // //
Flow/Gradient Direction:
Geomorphologic Characteristics
Primary Substrate Class:
Width (ft.)
at DP Max
OHWM 'G'
Top of Bank 18' ac'
Bank Slope [Reported as % or Horizontal:Vertical(H:V)]:
Left: <u> </u>
Right: 95° - 100'l
Bank Stability Summary
Right: Stuble - Veyetake Banker and compacted roils
1.4.
Left: Sum as above



Data Point ID: NP-007

Habitat Characteristics
Aquatic Vegetation Present: Yes No X
Aquatic Organisms Observed: Yes No No
Terrestrial Organisms Observed: Yes No No
Riparian Characteristics
Riparian Vegetation Description (0' to 150' from TOB): Left: 0'-150' - Com field
Right: 0'-150 - Unland fourt. Sugar March
Associated Wetland Present: Yes No X
Associated Artificial Drain Present: Yes No S
Jurisdictional Connectivity/Supplemental Comments:
NhI withins.



Stream Fi	eld ID: <u>Str</u>	eam - 009			
Data Point	ID: DP	-022 Date: 5/30/19 Project #: 185050			
Project Na	me: He	Heritage Wind Farm			
Evaluator(s): <u>Mic</u>	chael Bastedo, Tristen Peterson			
County:	Orleans	State: New York			
Stream Na	ime: <u>Un</u>	ened Tributery to Oak Orchest Creek			
State Clas	sified: Yes es, Classific				
Lat: <u>43.1</u>	43137	Long:78, 765190			
	Hỳ	drologic Characteristics			
Flow Regi	me: Pere	nnial Intermittent 🔀 Ephemeral			
Surface W	ater:	Present Absent			
Perceptible Flow: Present Absent Absent					
Water Dep	Water Depth at Thalweg: Z inches				
Wetted Pe	rimeter Widt	h: <u>〜 ろ</u> feet			
Flow/Grad	ient Directio	1: South			
	Geom	orphologic Characteristics			
Primary S	Substrate Cla	ass: <u>5:1+</u>			
		Width (ft.)			
		at DP Min Max			
	OHWN	1 3 1 3			
	Top of Bank	(5 2 5			
Bank Slope [Reported as % or Horizontal:Vertical(H:V)]: Left: Z:/ Right: Z:/					
		ank Stability Summary			
Left:	Stable: R	sold wee along bed thank, no			
	gevere en				
		А			
Right: .	Same ong	abovet			
•		.			



Data Point ID: DP-022

Habitat Characteristics
Aquatic Vegetation Present: Yes No V
Aquatic Organisms Observed: Yes 🔀 No 📗 If Yes, Describe: ΜΜαρου 3
Terrestrial Organisms Observed: Yes No No No No No No No No No No No No No
Riparian Characteristics
Riparian Vegetation Description (0' to 150' from TOB): Left: 0-150: Wethen Decides Amest, green ash,
Right: Same as above 1
Associated Wetland Present: Yes X No If Yes, ID: Wetund-809
Associated Artificial Drain Present: Yes No X
Jurisdictional Connectivity/Supplemental Comments:
Drzing from Stream-008 & Westerd-009



Stream Fi	eld ID:	Strea	am -006	>							
Data Poin	t ID:	DP-ن	>27 D	ate: <u>05/</u>	31/G Pr	oject#: <u> 4505D</u>					
Project Na	ıme:		age Wind								
Evaluator(
County:					_State:	New York					
Stream Na	ame:	Unner	ned Trib	intany to	Oak Or	ehard Creek					
State Clas	sified: 'es, Clas	Yes [sificati	• •	☐ No	t Applica	able					
Lat: <u>43.</u>	138127	,		Long:	-78.24	18039					
		Hydr	ologic C	haracter	istics						
Flow Regi	me: F	Perenn	nial 🔀	Intermitt	ent	Ephemeral					
Surface W	ater:		Present	×	Absent	,					
Perceptible	e Flow:		Present	\times	Absent						
Water Dep	oth at Th	alweg:		12	inches						
Wetted Perimeter Width: 9 feet											
Flow/Grad	ient Dire	ction:		20nth							
	Ge	omor	phologic	c Charac	teristics						
Primary S	Substrate	e Class	s: <u> </u>	5:1+							
			1	Nidth (ft.)							
			at DP	Min	Max						
	OH	lWM [B	4	9						
	Top of E	3ank [10	5	10						
Bank Slop	Left:	ted as	: % or Ho フ: l	orizontal:\	/ertical(⊦	H:V)]:					
ZZX81286312820332	Right:		U. CA-FIII		- Conferences (Experience)						
I off.	<u>C) u.</u>	no. sem emper, it spraying min	o mid-ministered circinates i mid-refi	ity Sumn							
L C II.	still	. 100	zevere t	210-10-1	rooted Ve	zalong bonds					
						· .					
Right:	Sine a	45 A	bove 1								
J											



Data Point ID: DP-027

Habitat Characteristics
Aquatic Vegetation Present: Yes No No If Yes, Describe:
Aquatic Organisms Observed: Yes No No No No No No No No No No No No No
Terrestrial Organisms Observed: Yes No No No If Yes, Describe:
Riparian Characteristics
Riparian Vegetation Description (0' to 150' from TOB): Left: O-150: Active agricultural field (con)
Right: 0-50' Uden decideous Keg 50-150: Wethord Alcideous Fornest
Associated Wetland Present: Yes No No
Associated Artificial Drain Present: Yes No No If Yes, ID:
Jurisdictional Connectivity/Supplemental Comments:
S7-007 branches off of Stream-006



Stream Field	ID: Stre	am . ഗാ്	7								
Data Point ID	: DP-0	031 D	ate: 5/3	31/19 PI	oject#: 165	0S0					
Project Name											
Evaluator(s):	Mich	ael Baste	do, Triste	en Peter	son						
County: Or	leans			State:	New York						
Stream Name): <u>Unn</u>	amed tribu	tary to	Oak Ore	had Creek						
State Classified: Yes 😾 No 🦳 Not Applicable 🔝 If Yes, Classification:											
Lat: <u>43,138</u>	806		Long:	-78.24	9708						
	Hydi	rologic C	haracter	istics "	in the second second						
Flow Regime	: Peren	nial 🟏	Intermitt	ent	Ephemera	al					
Surface Water	er:	Present	X	Absent							
Perceptible F	low:	Present	\star	Absent							
Water Depth	at Thalweg	*	6	inches							
Wetted Perim		-	6	feet							
Flow/Gradien	t Direction:	Son	<u>لـ</u>								
A Service of the Control of the Cont	Geomoi	rphologic	Charac	teristics							
Primary Sub	strate Clas	s:									
		V	Vidth (ft.)								
		at DP	Min	Max							
	OHWM	6	10	3							
To	p of Bank	8	<u> 15</u>	Ч							
Bank Slope [F	· ·	~ `	rizontal:\	/ertical(F	l:V)]:						
	ight:	2:1		•							
	Baı	nk Stabili	ty Sumn	nary							
Left: _ %	Fable: No	Severe 1	20000	(oole)	Ven along	bel					
<u>E</u>	bentis										
		****	·			•					
Right: <u></u>	ome as a	bove 1		-							
					·						



Data Point ID: DP- 03/

Habitat Characteristics
Aquatic Vegetation Present: Yes No 🔀 If Yes, Describe:
Aquatic Organisms Observed: Yes No No If Yes, Describe: Talphes
Terrestrial Organisms Observed: Yes No No No No No No No No No No No No No
Riparian Characteristics
Riparian Vegetation Description (0' to 150' from TOB): Left: 6-150: Elm Forme of
Right: 0-50'. []ms
50-160: Reed Carry Grass/Az Field
Associated Wetland Present: Yes Y No If Yes, ID:
Associated Artificial Drain Present: Yes No 💆
Jurisdictional Connectivity/Supplemental Comments:
Brunches off of Stream-odb outside of Pol
Flows through Wetland 008

Appendix C Photographs of Representative Wetland, Stream, and Upland Communities

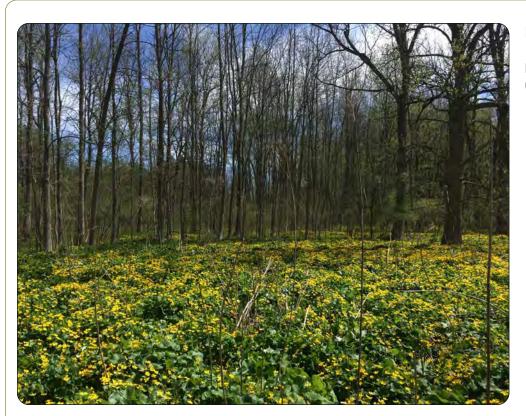


Photo 1

Representative emergent (PEM) wetland community.



Photo 2

Representative emergent (PEM) wetland community.



Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 1 of 11





Photo 3

Representative emergent (PEM) wetland community.



Photo 4

Representative emergent (PEM) wetland community.



Heritage Wind Project Town of Barre, Orleans County, New York

Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 2 of 11





Photo 5

Representative forested (PFO) wetland community.



Photo 6

Representative forested (PFO) wetland community.



Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 3 of 11





Photo 7 Representative forested (PFO) wetland community.



Photo 8 Representative forested (PFO) wetland community.

Heritage Wind Project Town of Barre, Orleans County, New York

Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 4 of 11





Photo 9

Representative scrub-shrub (PSS) wetland community.



Photo 10

Representative scrub-shrub (PSS) wetland community.

Heritage Wind Project Town of Barre, Orleans County, New York

Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 5 of 11





Photo 11

Representative scrub-shrub (PSS) wetland community.



Photo 12

Representative open water (POW) wetland community.

Heritage Wind Project Town of Barre, Orleans County, New York

Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 6 of 11





Photo 13

Representative open water (POW) wetland community.



Photo 14

Representative open water (POW) wetland community.

Heritage Wind Project Town of Barre, Orleans County, New York

Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 7 of 11





Photo 15

Representative upland forest community.



Photo 16

Representative upland forest community.



Heritage Wind Project Town of Barre, Orleans County, New York

Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 8 of 11





Photo 17

Representative upland agricultural field community.



Photo 18

Representative upland agricultural field community.

Heritage Wind Project Town of Barre, Orleans County, New York

Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 9 of 11





Photo 19

Representative perennial stream.



Photo 20

Representative perennial stream.

Heritage Wind Project Town of Barre, Orleans County, New York

Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 10 of 11





Photo 21

Representative intermittent stream.



Photo 22

Representative intermittent stream.

Heritage Wind Project Town of Barre, Orleans County, New York

Appendix C: Photographs of Representative Wetland, Stream, and Upland Communities

Sheet 11 of 11



Appendix D

Wetland Functions and Values Assessment Table

	,	Vegetation Conditions			Hydrological Conditions Size (a				Size (acres)	Surrounding Land Cover			
Wetland Delineation ID	Includes Forested Wetland	Includes Multiple Cover Types	Invasive Species Present	Dense Herbaceous Vegetation	Variable Water Level	Associated with Perennial River/Stream	Associated with Intermittent Stream	Seasonal Pools/Standing Water	Small (0-1), Medium (1-5), Large (5+)	Adjacent to Upland Forest	Adjacent to Agriculture/ Developed Land	Public Access	Primary Functions and Values
1A	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Large	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention, Wildlife Habitat
1D	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Large	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Fish and Shellfish Habitat
1F	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Large	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention, Wildlife Habitat, Floodflow Alteration
11	No	No	Yes	No	Yes	No	No	No	Small	No	Yes	Yes	Groundwater Recharge/Discharge
1K	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Large	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Floodflow Alteration
1N	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Large	No	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Floodflow Alteration
10	Yes	No	Yes	No	Yes	No	No	Yes	Large	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention, Wildlife Habitat
1R	No	No	Yes	Yes	Yes	No	No	No	Small	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation
1T	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Medium	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention
1U	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Large	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Wildlife Habitat
1V	No	No	Yes	Yes	Yes	No	No	Yes	Small	No	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation
1Z	No	No	No	Yes	Yes	Yes	No	Yes	Medium	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention
2B	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Large	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention, Wildlife Habitat, Floodflow Alteration
2C	No	No	No	Yes	Yes	No	Yes	Yes	Small	No	Yes	No	Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention

Appendix D: Wetland Functions and Values Assessment Table

W. H.	,	Vegetation Conditio	ns			Hydrologica	al Conditions		Size (acres)	Surrour	ding Land Cover		
Wetland Delineation ID	Includes Forested Wetland	Includes Multiple Cover Types	Invasive Species Present	Dense Herbaceous Vegetation	Variable Water Level	Associated with Perennial River/Stream	Associated with Intermittent Stream	Seasonal Pools/Standing Water	Small (0-1), Medium (1-5), Large (5+)	Adjacent to Upland Forest	Adjacent to Agriculture/ Developed Land	Public Access	Primary Functions and Values
2G	No	No	No	No	Yes	No	No	Yes	Small	Yes	Yes	No	Groundwater Recharge/Discharge
2Н	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Large	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention, Wildlife Habitat, Floodflow Alteration
2Ј	Yes	No	No	No	Yes	No	No	Yes	Small	Yes	No	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Wildlife Habitat
2L	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Large	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Wildlife Habitat, Floodflow Alteration
2N	No	No	Yes	Yes	Yes	No	Yes	No	Small	No	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention
2P	Yes	Yes	No	Yes	Yes	No	No	Yes	Medium	No	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation
3A	Yes	No	Yes	No	Yes	No	Yes	Yes	Medium	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation,
3J	No	Yes	No	Yes	Yes	No	Yes	Yes	Medium	No	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention
3K	No	No	No	Yes	Yes	No	Yes	Yes	Small	No	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation
3M	Yes	No	Yes	No	No	No	Yes	Yes	Large	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation, Sediment/Pollutant Retention, Wildlife Habitat
3P	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Medium	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation
3Q	No	No	No	Yes	Yes	No	No	No	Small	No	Yes	No	Groundwater Recharge/Discharge
3R	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Medium	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation
3S	No	No	No	Yes	Yes	No	No	Yes	Small	No	Yes	No	Groundwater Recharge/Discharge, Nutrient Removal/Retention/Transformation

Appendix D: Wetland Functions and Values Assessment Table

Mattered		Vegetation Conditions					Hydrological Conditions			Surrounding Land Cover					
Wetland Delineation ID	Includes Forested Wetland	Includes Multiple Cover Types	Invasive Species Present	Dense Herbaceous Vegetation	Variable Water Level	Associated with Perennial River/Stream	Associated with Intermittent Stream	Seasonal Pools/Standing Water	Small (0-1), Medium (1-5), Large (5+)	Adjacent to Upland Forest	Adjacent to Agriculture/ Developed Land	Public Access	Primary Functions and Values		
3T	Yes	No	Yes	No	Yes	Yes	No	No	Medium	Yes	Yes	No	Groundwater Recharge/Discharge, Nutrient		
3U	No	No	No	No	Yes	No	No	Yes	Small	No	Yes	No	Groundwater Recharge/Discharge		