WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County: Ames	,			Sampling Date:	2021-Sept-22	
Applicant/Owner: S	unEast				State: New	York	Sampling Point:	W-IBP-05_PEM-1	
Investigator(s): Isaa	Investigator(s): Isaac Pallant, Carson Rowe, Casey Pearce Section, Township, Range: NA								
Landform (hillslope, te	errace, etc.):	Hillslope	L	ocal relief	(concave, conve	ex, none):	Undulating	Slope (%): 1 to 3	
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.8418041	Long:	-74.5118764	Datum: WGS84	
Soil Map Unit Name:	Darien silt lo	am, 3 to 8 perce	ent slopes				NWI classifie	cation: None	
Are climatic/hydrologic	c conditions o	n the site typical	for this time of year	r?	Yes 🟒 No	(If no	o, explain in Rema	rks.)	
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significantly dist naturally proble	urbed? matic?	Are "Norma (If needed, e	l Circums explain ar	tances" present? ny answers in Rem	Yes 🟒 No arks.)	

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No _							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-IBP-05							
Remarks: (Explain alternative procedures here or in a separate report)										
Covertype is PEM. Area is wetland, all three wetland parameters are present. successional old field.										

HYDROLOGY

Wetland Hydrology Indicators:				
Wetland Hydrology Indicators: Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	IE is required; check all th Water-S Aquatic Marl De Hydrog Oxidize Presenc Recent Thin Mu	oots (C3) ls (C6)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)	
Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Field Observations: Surface Water Present? Water Table Present?	agery (B7) Other (E rface (B8) Yes No∕_	Depth (inches):		Microtopographic Relief (D4) FAC-Neutral Test (D5)
Saturation Present? (includes capillary fringe) Describe Recorded Data (stream ga	Yes No auge, monitoring well, ae	Depth (inches): rial photos, previous inspe	0 ctions), if	available:
Remarks: The criterion for wetland hydrolog	y is met. A positive indica	tion of wetland hydrology	was obser	ved (primary and secondary indicators were present).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-05_PEM-1

Remarks: (Include photo numbers here or on a sep	oarate sheet.)			_			
·	0	= Total Cov	er	-			
Δ		·		-			
2.				-			
۱				-			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)						ics <u>v</u> I	NU
	115	= Total Cov	er	Hydronhytic Vegetation	n Present? \		No
12		·		height.	y which great		.201111
11				Woody vines - All wood	v vines great	ter than 3	₹ 28 ft in
10		·		size and woody plants	less than 2.2	piants, re 8 ft tall	gar diess of
9		·		greater than or equal to) 5.28 IT (I M	jiall.	and loss of
8		·		Sapling/shrub - Woody	plants less th	nan 3 in.	DBH and
7.		·		breast height (DBH), reg	ardless of h	eight.	
6. Apocynum cannabinum	10	No	FAC	Tree – Woody plants 3 in	n. (7.6 cm) or	r more in	diameter at
5. <i>Eupatorium perfoliatum</i>	10	No	FACW	Definitions of Vegetatio	n Strata:		
4. <u>Scirpus atrovirens</u>	10	No	OBL	present, unless disturbe	ed or probler	matic	
3. <u>Scirpus cyperinus</u>	10	No	OBL	¹ Indicators of hydric soi	l and wetlan	d hydrolc	ogy must be
2. Juncus effusus	35	Yes	OBL	Problematic Hydro	ophytic Vege	tation ¹ (E	xplain)
1. Symphyotrichum puniceum	40	Yes	OBL	data in Remarks or on a	a separate sh	leet)	., 0
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations ¹	(Provide	supporting
	20	= Total Cov	er	3 - Prevalence Inde	ex is $\leq 3.0^1$		
7				✓ 2 - Dominance Tes	st is >50%	-8	
6		·		1- Rapid Test for H	lydrophytic V	egetatior	า
5		·		Hydrophytic Vegetation	Indicators:		
4		·		Prevalence In	dex = B/A =	1.5	
3		·		Column Totals	135	(A)	205 (B)
2. Cornus racemosa	5	Yes	FAC	UPL species	0	x 5 =	0
1. <i>Khamnus cathartica</i>		Yes	FAC	FACU species	0	x 4 =	0
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)		.,	F 4 C	FAC species	30	x 3 =	90
	0	= Total Cov	er	FACW species	10	x 2 =	20
7				- OBL species	95	x 1 =	95
6				Total % Cover	of:	Multiply	<u>/ By:</u>
5		·		Prevalence Index works	heet:		
4				- Are OBL. FACW. or FAC:		100	(A/B)
3		·		Percent of Dominant Cr	necies That		
2				Iotal Number of Domin	ant Species	4	(B)
1				Are OBL, FACW, or FAC:			
	% Cover	Species?	Status	Number of Dominant S	pecies That	4	(A)
Tree Stratum (Plot size: 20 ft)	Absolute	Dominant	Indicator	Dominance Test worksh	ieet:		

SOIL

Profile Desc	cription: (Describe	to the o	depth needed to d	locun	nent the	indicato	r or confirm th	e absence of indicators	.)
Depth	Matrix		Redox	Feat	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0 - 12	10YR 4/1	80	2.5YR 5/6	20	С	М	C	lay Loam	
12 - 20	2.5Y 5/2	90	10YR 5/6	10	С	М	Grave	elly Silty Clay	
¹ Type: C = C	Concentration, D =	Depleti	ion, RM = Reduce	d Mat	rix, MS =	Masked	Sand Grains.	² Location: PL = Pore Li	ning, M = Matrix.
Hvdric Soil	Indicators:							Indicators for Prot	plematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	elow S	urface (S8) (LRR	R, MLRA 149B)	2 cm Muck (A1	
Histic Ep	bipedon (A2)		Thin Dark Su	urface	(S9) (LR	R R, MLR	A 149B)	2 CITI MUCK (AT	$(0) (\mathbf{LKK}, \mathbf{L}, \mathbf{M} \mathbf{LK}, \mathbf{I} \mathbf{49D})$
Black Hi	stic (A3)		Loamy Mucl	ky Mir	eral (F1)) (LRR K, I	L)	5 cm Mucky Pe	Pat or Peat (S3) (IRR K \downarrow R)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Ma	trix (F2)			Dark Surface (57) (I BR K. I.)
Stratifie	d Layers (A5)		Depleted Ma	atrix (I	-3)			Polyvalue Belo	w Surface (S8) (LRR K, L)
Deplete	d Below Dark Surfa	ace (A1	1) Redox Dark	Surfa	ce (F6)			Thin Dark Surf	ace (S9) (LRR K, L)
Thick Da	ark Surface (A12)		Depleted Da	rk Su	face (F7)		Iron-Manganes	se Masses (F12) (LRR K, L, R)
Sanuy iv			Redox Depr	essior	IS (F8)			Piedmont Floo	dplain Soils (F19) (MLRA 149B)
Sandy G	aleyed Matrix (54)							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sanuy R	Hatrix (SC)							Red Parent Ma	iterial (F21)
Stripped	1 Matrix (S6)		40D)					Very Shallow D	Dark Surface (TF12)
Dark Su	fiace (57) (LKK K, N	ILKA 14	+9D)					Other (Explain	in Remarks)
³ Indicators	of hydrophytic veg	etatior	and wetland hyd	rolog	y must b	e preser	nt, unless distu	rbed or problematic.	
Restrictive I	ayer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes 🟒 No
	Depth (inches):								
Remarks:									
A positive ir	ndication of hydric	soil wa	is observed. The c	riterio	on for hy	/dric soil	is met.		

Soil Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot South Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County: Ames	,			Sampling Date:	2021-Sept-22
Applicant/Owner: S	unEast				State: Nev	w York	Sampling Point:	W-IBP-05_PSS-1
Investigator(s): Isaac Pallant, Carson Rowe, Casey Pearce Section, Township, Range: NA								
Landform (hillslope, te	errace, etc.):	Hillslope	L	ocal relief	(concave, conv	/ex, none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.8416606	Long:	-74.5118077	Datum: WGS84
Soil Map Unit Name:	Darien silt lo	am, 3 to 8 perce	nt slopes				NWI classifie	cation: None
Are climatic/hydrologic	c conditions o	n the site typical	for this time of yea	r?	Yes 🟒 No	(If no	o, explain in Rema	rks.)
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significantly dist naturally proble	urbed? matic?	Are "Norm (If needed,	al Circums explain ar	tances" present? ny answers in Rem	Yes 🟒 No arks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🯒 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-IBP-05							
Remarks: (Explain alternative procedures here or in a separate report)										
Covertype is PSS. Area is wetland, all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is required	<u>check all that apply)</u>	Secondary Indicators (minimum of two required)		
 ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) 	 Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) 	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations:				
Surface Water Present? Yes 🟒 No	Depth (inches): 1	_		
Water Table Present? Yes 🟒 No	Depth (inches): 1	Wetland Hydrology Present? Yes No		
Saturation Present? Yes 🟒 No	Depth (inches): 0			
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monito	ing well, aerial photos, previous inspections), if	available:		

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-05_PSS-1

	% Cover	Dominant Species?	Indicator Status	Number of Dominant	heet: Species That	-		
1 Illmus americana	5	Yes	FACW	Are OBL, FACW, or FAC	:	6	(A)	
2			incit	Total Number of Domi Across All Strata:	nant Species	6	(B)	
3 4				Percent of Dominant Species That		100	(A/B)	
5				Prevalence Index work	sheet:			
6				Total % Cover	of.	Multiply	Bv.	
7				- OBL species	35	x 1 =	35	
	5	= Total Cov	er	FACW species	55	x 2 =	110	
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	115	x 3 =	345	
1. <i>Cornus racemosa</i>	35	Yes	FAC		0	× 1 -	0	
2. Rhamnus cathartica	25	Yes	FAC		0	×4- ×5-	0	
3.				Column Totals	205	x 5	U (D)	
4.					205	(A) _	490 (B)	
5.				Prevalence In	1dex = B/A =	2.4		
6.				Hydrophytic Vegetation	n Indicators:			
7				1- Rapid Test for Hydrophytic Vegetation				
	60	= Total Cov	or	2 - Dominance Test is >50%				
Harb Stratum (Plot size: 5 ft)		-		3 - Prevalence Inc	lex is $\leq 3.0^1$			
1 Symphystrichum puniceum	35	Voc	OBI	4 - Morphologica	Adaptations ¹	(Provide	supporting	
		Voc	EAC	 data in Remarks or on a separate sheet) 				
2. Apocynum camabinum		Vee	FAC	Problematic Hydr	ophytic Veget	tation ¹ (Ex	plain)	
3. Euthamia gramminina	25	Yes	FAC	¹ Indicators of hydric so	il and wetlan	d hydrolog	gy must be	
	20	<u>N0</u>	FACW	present, unless disturb	ed or probler	matic		
5. Eupatorium perfoliatum	15	No	FACW	Definitions of Vegetation	on Strata:			
6. <i>Phalaris arundinacea</i>	10	No	FACW	Tree – Woody plants 3	in. (7.6 cm) or	more in o	diameter at	
7. Impatiens capensis	5	No	FACW	breast height (DBH), re	gardless of h	eight.		
8				Sapling/shrub - Woody	/ plants less th	nan 3 in. D	OBH and	
9				greater than or equal t	o 3.28 ft (1 m) tall.		
10				Herb – All herbaceous	(non-woody)	plants, reg	gardless of	
11				size, and woody plants	less than 3.2	8 ft tall.		
12.				Woody vines – All woo	dy vines great	er than 3.	.28 ft in	
	140	= Total Cov	er	height.				
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)		-		Hydrophytic Vegetatic	n Present?	′es 🟒 N	lo	
1.								
2.								
3.				•				
A				-				
	0	= Total Cov	er	•				
		-						

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

SOIL

Profile Desc	ription: (Describe	to the	depth needed to d	locun	nent the i	indicato	r or confirm the al	bsence of indicators.)
Depth	Matrix		Redox	Feat	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0 - 6	10YR 3/2	95	10YR 5/8	5	С	М	Clay Loam		
6 - 20	10YR 4/1	90	10YR 5/4	10	С	М	Gravelly Clay Loam		
								<u> </u>	
¹ Type: C = C	oncentration, D =	Deplet	ion, RM = Reduce	d Mat	rix, MS =	Masked	Sand Grains. ² Lo	ocation: PL = Pore Lir	ning, M = Matrix.
Hydric Soil I	ndicators:							Indicators for Prob	lematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	elow S	Surface (S	58) (LRR	R, MLRA 149B)	2 cm Muck (A1)	
Histic Ep	pipedon (A2)		Thin Dark Su	urface	(S9) (LRF	R R, MLR	A 149B)	2 CHI MUCK (A R	(1490)
Black Hi	stic (A3)		Loamy Mucl	xy Mir	neral (F1)	(LRR K,	L)	E cm Mucky Po	edox (ATO) (LKK K, L, K)
Hydroge	en Sulfide (A4)		Loamy Gley	ed Ma	trix (F2)			5 CIII MuCky Pe	
Stratifie	d Layers (A5)		_ ∕_ Depleted M	atrix (F3)				(LKK K, L)
Deplete	d Below Dark Surfa	ace (A1	1) <u> </u>	Surfa	ce (F6)			Folyvalue Below	
Thick Da	ark Surface (A12)		Depleted Da	irk Su	rface (F7)			
Sandy N	lucky Mineral (S1)		Redox Depr	essior	ns (F8)				dolain Soils (E19) (MI PA 1/9B)
Sandy G	leyed Matrix (S4)							Mesic Spodic (1	[A6] (MI PA 144A 145 149B)
Sandy R	edox (S5)							Nesic Spould (1	torial (E21)
Stripped	l Matrix (S6)							Very Shallow D	ark Surface (TE12)
Dark Su	rface (S7) (LRR R, N	ILRA 1	49B)					Very Shahow D	in Remarks)
a. II									in Kentarksy
Indicators	of hydrophytic veg	etatior	h and wetland hyd	rolog	y must b	e preser	it, unless disturbe	d or problematic.	
Restrictive L	ayer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes 🟒 No
	Depth (inches):								
Remarks:									
A positive ir	ndication of hydric	soil wa	as observed. The o	riterio	on for hy	dric soil	is met.		

Soil Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot South Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Project	<u> </u>	City/County: Ames	5,				Sampling Date: 2	2021-Sept-22	
Applicant/Owner: S	unEast				State:	New York	(Sampling Point: W-	IBP-05_UPL-1	
Investigator(s): Isaa	Investigator(s): Isaac Pallant, Carson Rowe, Casey Pearce Section, Township, Range: NA									
Landform (hillslope, te	rrace, etc.):	Hillslope	L	Local relief	(concave, o	convex, no	one):	Undulating	Slope (%): 1 t	to 3
Subregion (LRR or MLF	₹A): LRR	-		Lat:	42.841584	18 L	ong:	-74.5117715	Datum: WGS8	34
Soil Map Unit Name:	Darien silt lo	am, 3 to 8 percer	nt slopes					NWI classificat	i on: None	
Are climatic/hydrologic	c conditions or	n the site typical f	or this time of yea	ır?	Yes 🖌	_ No	(lf no	, explain in Remarks	s.)	
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	_ significantly dist _ naturally proble	turbed? ematic?	Are "No (If need	ormal Circ ded, expla	umst in an	ances" present? y answers in Remarl	Yes 🟒 No ks.)	-

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

Hydrophytic Vegetation Present?	Yes No									
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒							
Wetland Hydrology Present?	Yes No _	lf yes, optional Wetland Site ID:								
Remarks: (Explain alternative procedures here or in a separate report)										
Covertype is UPL. Area is upland, not all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all t	that apply)	Secondary Indicators (minimum o	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Surface 	Water- Aquati Marl D Hydrog Oxidize Presen Recent Thin M agery (B7) Other rface (B8)	Stained Leaves (B9) c Fauna (B13) eposits (B15) gen Sulfide Odor (C1) ed Rhizospheres on Living Roots (C3) nce of Reduced Iron (C4) t Iron Reduction in Tilled Soils (C6) luck Surface (C7) (Explain in Remarks)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D' Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	nagery (C9) 1)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _ _/ Yes No _ _/ Yes No _ _/	Depth (inches): Depth (inches): Depth (inches):	 Wetland Hydrology Present? 	Yes No⁄_
Describe Recorded Data (stream ga Remarks: The criterion for wetland hydrology	y is not met. No positive	erial photos, previous inspections), if	s observed.	

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-05_UPL-1

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test works Number of Dominant	sheet: Species That	2	(A)	
1. 2.		· ·		Are OBL, FACW, or FAC Total Number of Dom	: inant Species	3	(B)	
3		·		Percent of Dominant Strata	Species That C:	66.7	(A/B)	
5				Prevalence Index wor	ksheet:			
6				Total % Cove	<u>r of:</u>	Multiply	By:	
7		<u> </u>		OBL species	0	x 1 =	0	
	0	= Total Cov	er	FACW species	0	x 2 =	0	
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	70	x 3 =	210	
1. <u>Rhamnus cathartica</u>	10	Yes	FAC	FACU species	55	x 4 =	220	
2		<u> </u>		UPL species	0	x 5 =	0	
3				Column Totals	125	(A)	430 (B)	
4				Prevalence l	ndex = B/A =	3.4		
5								
6				1 Papid Test for	Hydrophytic W	logotation		
7				1- Rapid Test Tol		egetation		
	10	= Total Cov	over					
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				3 - Prevalence in	$dex 13 \leq 3.0^{\circ}$	l (Provido	supporting	
1. <i>Galium mollugo</i>	50	Yes	FACU	data in Remarks or on	i a senarate sh	eet)	supporting	
2. Apocynum cannabinum	40	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)				
3. Prunella vulgaris	10	No	FAC	¹ Indicators of hydric soil and wetland hydrology must be				
4. Ranunculus repens	10	No	FAC	present, unless disturbed or problematic				
5. Solidago canadensis	5	No	FACU	Definitions of Vegetat	ion Strata:			
6.				Tree – Woody plants 3	in. (7.6 cm) or	r more in o	diameter at	
7.				breast height (DBH), r	egardless of h	eight.		
8.				Sapling/shrub - Wood	y plants less tl	han 3 in. D	OBH and	
9.				greater than or equal	to 3.28 ft (1 m) tall.		
10.				Herb – All herbaceous	(non-woody)	plants, reg	gardless of	
11.				size, and woody plant	s less than 3.2	8 ft tall.		
12.				Woody vines – All woo	ody vines great	ter than 3.	.28 ft in	
	115	= Total Cov	er	height.				
Woody Vine Stratum (Plot size: 30 ft)		-		Hydrophytic Vegetati	on Present?	/es 🟒 N	lo	
1.								
2				•				
		<u> </u>		•				
		·		•				
	0	= Total Cov	er	-				
Remarks: (Include photo numbers here or on a co	narate sheet)							
A positive indication of hydrophytic vegetation wa	s observed (SEC	10% of domin	ant spacios	indexed as OBL EACIN	or EAC)			
A positive indication of figurophytic vegetation wa	2 ODSELVED (200		iant species	Indexed as ODL, FACW,	ULLAC).			

SOIL

Profile Des	cription: (Describe	to the c	lepth needed to d	locun	nent the	indicato	r or confirm the a	bsence of ind	icators.)	
Depth	Matrix		Redox	<pre>< Feat</pre>	ures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	e	Remarks	
0 - 18	10YR 4/2	100					Clay Loa	im		
18 - 20	10YR 4/1	60	10YR 5/8	40	С	М	Silty Cla	iy		
-										
-										
-				·						
-										
_				· <u> </u>						
-	Construction D						Canal Casina 21		De ver Lincine en Marchania	
Type: C =	Concentration, D =	Depleti	on, RM = Reduced	d Mat	rix, MS =	Masked	Sand Grains. ² L	ocation: PL =	Pore Lining, M = Matrix.	
Hydric Soil	Indicators:							Indicators fo	or Problematic Hydric Soils ³ :	
Histoso	ol (A1)		Polyvalue Be	low S	Surface (S	58) (LRR	R, MLRA 149B)	2 cm Mu	uck (A10) (LRR K, L, MLRA 149B)	
HISTIC E	pipedon (A2)		I nin Dark Su		(S9) (LRF	KR, MLK	A 149B)	Coast Pr	rairie Redox (A16) (LRR K, L, R)	
	nstic (AS)			y wiii d Ma	triv (E2)	(LKK K, I	L)	5 cm Mu	ucky Peat or Peat (S3) (LRR K, L, R)	
Tyurug Stratifie	ed Lavers (A5)		Loany Gleye	trix (F3)			Dark Su	rface (S7) (LRR K, L)	
Deplete	ed Below Dark Surf	ace (A1	1) Redox Dark	Surfa	ce (F6)			Polyvalu	ue Below Surface (S8) (LRR K, L)	
Thick D	ark Surface (A12)		Depleted Da	rk Su	rface (F7))		Thin Dai	rk Surface (S9) (LRR K, L)	
Sandy I	Mucky Mineral (S1)		Redox Depre	essior	ns (F8)			Iron-Ma	nganese Masses (F12) (LRR K, L, R)	
Sandy	Gleyed Matrix (S4)		·					Piedmoi	nt Floodplain Soils (F19) (MLRA 149B)	
Sandy	Redox (S5)							Mesic Sp	podic (1A6) (MLRA 144A, 145, 149B)	
Strippe	d Matrix (S6)							Red Par	ent Material (F21)	
Dark Si	urface (S7) (LRR R. N	/LRA 14	19B)					Very Sna	allow Dark Surface (TFT2)	
			-					Other (E		
³ Indicators	of hydrophytic veg	etation	and wetland hyd	rolog	y must b	e preser	nt, unless disturbe	ed or problem	atic.	
Restrictive	Layer (if observed)	:								
	Туре:		None			Hydric	Soil Present?	Y	/es No∕_	
	Depth (inches):									
Remarks:										
No positive	e indication of hydr	ic soils	was observed. Th	e crite	erion for	hydric s	oil is not met.			

Soil Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot South



Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

1 to 10
3S84

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

Hydrophytic Vegetation Present?	Yes 🟒 No								
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No						
Wetland Hydrology Present?	Yes 🟒 No	lf yes, optional Wetland Site ID:	W-IBP-6						
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is PEM. Area is wetland, all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)			
 Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Orift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) 	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 			
Field Observations:				
Surface Water Present? Yes No _				
Water Table Present? Yes 🖌 No Depth (inches): 6	Wetland Hydrology Present? Yes No			
Saturation Present? Yes 🖌 No Depth (inches): 2				
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in Remarks: The criterion for wetland hydrology is met. A positive indication of wetland hydrology was obse	f available: erved (primary and secondary indicators were present).			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-6_PEM-1

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
1.	% Cover	Species?	Status	Are OBL, FACW, or FAC	Species That ::	2	(A)
2.				Total Number of Domi	nant Species	2	(B)
3				 Percent of Dominant S 	pecies That		
4.		<u> </u>		Are OBL, FACW, or FAC	:	100	(A/B)
S				Prevalence Index work	sheet:		
o				- <u>Total % Cover</u>	of:	<u>Multiply</u>	<u>By:</u>
7		Tabal Ca		- OBL species	95	x 1 =	95
Carling/Church Churchard (Distring) 45 (tr.)	0	= lotal Cov	er	FACW species	30	x 2 =	60
Sapling/Shrub Stratum (Plot size:15 ft)				FAC species	10	x 3 =	30
1				FACU species	0	x 4 =	0
2.				- UPL species	0	x 5 =	0
3.				Column Totals	135	(A)	185 (B)
4.				Prevalence li	ndex = B/A =	1.4	
5.				Hydrophytic Vegetation Indicators:			
6.				1- Rapid Test for Hydrophytic Vegetation			
/		<u> </u>		—2 - Dominance Test is >50%			
	0	= Total Cov	er	3 - Prevalence Inc	dex is $\leq 3.0^1$		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphologica	Adaptations ¹	(Provide	supporting
1. <u>Carex vulpinoidea</u>	55	Yes	OBL	- data in Remarks or on	a separate sh	ieet)	
2. Symphyotrichum puniceum	30	Yes	OBL	Problematic Hydr	rophytic Vege	tation ¹ (Ex	(plain)
3. <i>Poa palustris</i>	20	No	FACW	¹ Indicators of hydric so	il and wetlan	d hydrolo	gy must be
4. <i>Mentha arvensis</i>	10	No	FACW	present, unless disturb	oed or probler	matic	
5. <i>Galium palustre</i>	10	No	OBL	Definitions of Vegetation	on Strata:		
6. <i>Valeriana officinalis</i>	10	No	NI	Tree – Woody plants 3	in. (7.6 cm) or	r more in o	diameter at
7. Agrostis capillaris	5	No	FAC	breast height (DBH), re	gardless of h	eight.	
8. <i>Euthamia graminifolia</i>	5	No	FAC	Sapling/shrub - Wood	y plants less tl	han 3 in. [OBH and
9				greater than or equal t	:o 3.28 ft (1 m) tall.	
10.				Herb – All herbaceous	(non-woody)	plants, reį	gardless of
11.				size, and woody plants	less than 3.2	8 ft tall.	
12.				Woody vines – All woo	dy vines great	ter than 3	.28 ft in
	145	= Total Cov	er	height.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)		-		Hydrophytic Vegetatio	on Present?	/es 🟒 N	lo
1.							
2.				-			
3.				-			
4.				-			
	0	= Total Cov	er	-			
		-					
Remarks: (include photo numbers here or on a se	parate sneet.)						

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

SOIL

Color (inches) Color 0 - 9.5 10 9.5 - 13 2. 13 - 18 10 9.5 - 13 2. 13 - 18 10 9.5 - 13 2. 13 - 18 10 9.5 - 13 2. 13 - 18 10 9.5 - 13 2. 13 - 18 10 9.5 - 13 2. 13 - 18 10 9.5 10 10 <th>r (Matrix or (moist) OYR 3/1 .5Y 3/1 OYR 3/1 OYR 3/1 </th>	r (Matrix or (moist) OYR 3/1 .5Y 3/1 OYR 3/1 OYR 3/1
Initiality Code 0 - 9.5 10 9.5 - 13 2. 13 - 18 10 I3 - 18 10 Jack Histic Koll 10 I Histosol (A1) Histosol (A1) Histosol (A1) Histosol (A1) J Histic Epipedor Sandy Mucky M Sandy Redox (S Sandy Redox (S Straipped Matrix Sandy Redox (S Stripped Matrix Dark Surface (S Indicators of hydr Type: Depth <th>n (A2) n (A2)</th>	n (A2) n (A2)
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Type: Depth emarks: positive indicatio	if observed)
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emarks: positive indicatic	(inches):
positive indicatio	(incrico).
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Soil Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot South Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Canajoharie,	Montgomery	County	Sampling Date:	2021-Sept-23
Applicant/Owner: S	unEast				State:	New York	Sampling Point:	W-IBP-6_PSS-1
Investigator(s): Etha	n Snyder, Abi	Light		S	ection, Town	ship, Range:	NA	
Landform (hillslope, te	rrace, etc.):	Hillslope		Local reli	ef (concave,	convex, none	e): Undulating	Slope (%): 1 to 10
Subregion (LRR or MLF	RA): LRR	L		La	t: 42.84093	16 Lon	g: -74.5102112	Datum: WGS84
Soil Map Unit Name:	llion silt loar	n, 3 to 8 percen	t slopes				NWI classific	ation: None
Are climatic/hydrologic	c conditions o	n the site typical	for this time	of year?	Yes 🟒	_ No (If	no, explain in Rema	rks.)
Are Vegetation,	Soil,	or Hydrology _	significan	tly disturbed?	Are "N	ormal Circun	nstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology _	naturally	problematic?	(If nee	ded, explain	any answers in Rem	arks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No								
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No						
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-IBP-6						
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is PSS. Area is wetland, all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)			
	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 			
Field Observations:				
Surface Water Present? Yes No Depth (inches):	_			
Water Table Present? Yes 🖌 No Depth (inches): 2	Wetland Hydrology Present? Yes No			
Saturation Present? Yes 🖌 No Depth (inches): 0				
(includes capillary fringe)	-			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if Remarks: The criterion for wetland hydrology is met. A positive indication of wetland hydrology was obse	available: 			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-6_PSS-1

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test works	sheet: Species That	4	(A)	
1		·		Are OBL, FACW, or FAC	: nant Snecies			
2		·		Across All Strata:	nune opecies	4	(B)	
4.		·		Percent of Dominant S - Are OBL, FACW, or FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:			
5.		·		Prevalence Index worksheet: <u>Total % Cover of: Multiply By</u>				
6.		<u> </u>					<u>' By:</u>	
7				- OBL species	0	x 1 =	0	
	0	= lotal Cov	er	FACW species	30	x 2 =	60	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft</u>)				FAC species	75	x 3 =	225	
1. Viburnum lentago	30	Yes	FAC	- FACU species	0	x 4 =	0	
2. <i>Rhamnus cathartica</i>	20	Yes	FAC	- UPL species	0	x 5 =	0	
3. Cornus racemosa	15	Yes	FAC	- Column Totals	105	(A)	285 (B)	
4. <i>Frangula alnus</i>	5	No	FAC	Prevalence I	ndex = B/A =	27	200 (2)	
5							·	
6.				Hydrophytic Vegetatio	n Indicators:			
7.				1- Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%				
		= Total Cov	er					
Herb Stratum (Plot size: 5 ft)		-		3 - Prevalence In	dex is $\leq 3.0^1$			
1 Solidago gigantea	25	Yes	FACW	4 - Morphologica	l Adaptations ¹	Provide	supporting	
2 Symphyotrichum povi-belgii	5	No	FACW	 data in Remarks or on a separate sheet) 				
2. Symphyourchain now beign	5	No	EAC	Problematic Hydrophytic Vegetation ¹ (Explain)				
		INU	FAC	- ¹ Indicators of hydric so	oil and wetlan	d hydrolc	ogy must be	
4.		<u> </u>		present, unless disturbed or problematic				
5		·		Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter a breast height (DBH), regardless of height.				
6								
7								
8		·		Sapling/shrub – Wood	y plants less tl	han 3 in.	DBH and	
9				greater than or equal	to 3.28 ft (1 m) tall.		
10				Herb – All herbaceous	(non-woody)	plants, re	gardless of	
11.				size, and woody plants	s less than 3.2	8 ft tall.		
12.				Woody vines – All woo	dy vines great	ter than 3	8.28 ft in	
	35	= Total Cov	er	height.				
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)		<u>.</u>		Hydrophytic Vegetation	on Present?	∕es _∠ I	No	
·				-				
2		<u> </u>		-				
3		·		-				
4				-				
	0	= Total Cov	er					

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

SOIL

Profile Des	cription: (Describe t	o the	depth needed to d	locum	nent the	indicato	r or confirm the a	bsence of indicate	ors.)
Depth	Matrix		Redox	Feat	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Text	ure	Remarks
0 - 12	10YR 3/1	95	7.5YR 5/6	5	C	М	Silt Loam		
12 - 18	10YR 4/1	90	5YR 4/4	10	С	М	Silty Clay Loam		
		·							
		·							
		· —		—					
		·						<u> </u>	
		· —							
		· —		—					
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	-	·		—					
	-								
¹ Type: C = C	Concentration, D = I	Deplet	ion, RM = Reduced	d Mat	rix, MS =	Masked	Sand Grains. ² L	ocation: PL = Pore	e Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for P	roblematic Hydric Soils ³ :
Histoso	l (A1)		Polyvalue Be	low S	urface (S	58) (LRR	R, MLRA 149B)	2 cm Muck	(A10) (LRR K, L, MLRA 149B)
Histic El	oipedon (A2)		Thin Dark Su	irface	(S9) (LRF	RR, MLR	A 149B)	Coast Prairi	e Redox (A16) (LRR K, L, R)
Black H	ISTIC (A3)		Loamy Muck	y Mir	ieral (F1)	(LRR K, I	L)	5 cm Mucky	/ Peat or Peat (S3) (LRR K, L, R)
Hydrogo	en Suillae (A4)		Loarny Gleye	ed IVIa	(FZ)			Dark Surfac	e (S7) (LRR K, L)
Stratine	d Below Dark Surfa	دم (۵۱	1) / Redox Dark	Surfa	-5) -6 (E6)			Polyvalue B	elow Surface (S8) (LRR K, L)
Depicte Thick Da	ark Surface (A12)		Depleted Da	rk Su	rface (F7)		Thin Dark S	urface (S9) (LRR K, L)
Sandy N	/ucky Mineral (S1)		Redox Depre	essior	ns (F8)	,		Iron-Manga	nese Masses (F12) (LRR K, L, R)
Sandy (Gleved Matrix (S4)							Piedmont F	loodplain Soils (F19) (MLRA 149B)
Sandy F	Redox (S5)							Mesic Spod	ic (TA6) (MLRA 144A, 145, 149B)
Strippe	d Matrix (S6)							Red Parent	Material (F21)
Dark Su	urface (S7) (I RR R M	II RA 1.	49R)					Very Shallov	w Dark Surface (TF12)
Durk 50			1907					Other (Expl	ain in Remarks)
³ Indicators	of hydrophytic veg	etatior	n and wetland hyd	rolog	y must b	e preser	nt, unless disturbe	ed or problematic	
Restrictive	Layer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes No
	Depth (inches):								
Remarks:									
A positive i	ndication of hydric	soil wa	as observed. The c	riterio	on for hy	dric soil	is met.		

Soil Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot South





WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t City/County	. Canajoharie, Mo	ntgomery Cou	unty	Sampling Date: 20	021-Sept-23
Applicant/Owner: S	unEast			State: Ne	w York	Sampling Point: W-I	BP-6_UPL-1
Investigator(s): Etha	n Snyder, Stev	/e Spotts, Abi Light	Sect	ion, Township	, Range: NA	A	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local relief	(concave, con	vex, none):	Undulating	Slope (%): 1 to 10
Subregion (LRR or MLF	RA): LRR	L	Lat:	42.84094	Long:	-74.510011	Datum: WGS84
Soil Map Unit Name:	llion silt loar	n, 3 to 8 percent slopes				NWI classificati	on: None
Are climatic/hydrologic	c conditions or	n the site typical for this tim	e of year?	Yes 🟒 No	o (If no	, explain in Remarks.)
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology significa or Hydrology naturally	ntly disturbed? / problematic?	Are "Norm (If needed	nal Circumst , explain any	ances" present? / answers in Remark	Yes 🟒 No s.)

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

Hydrophytic Vegetation Present?	Yes No 🟒								
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No _	lf yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures her	re or in a separate report)								
Covertype is UPL. Area is upland, not all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one	is required; check all th	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf 	Water-St Aquatic Marl Dep Hydroge Oxidized Presence Recent li Thin Mu gery (B7) Other (E face (B8)			
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _ / Yes No _ / Yes No _ /	Wetland Hydrology Present?	Yes No _	
Describe Recorded Data (stream gau	uge, monitoring well, aer	rial photos, previous inspections), if	available:	
Remarks: The criterion for wetland hydrology	is not met. No positive ir	ndication of wetland hydrology was	observed.	

VEGETATION -- Use scientific names of plants.

Sampling Point: W-IBP-6_UPL-1

Tree Stratum (Plot size: <u>30 ft</u>)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	- Number of Dominant Species Tha	[[] 1	(A)
1				- Total Number of Dominant Specie	<u></u>	
2				- Across All Strata:	[°] 2	(B)
3				Percent of Dominant Species That		
4.				Are OBL, FACW, or FAC:	50	(A/B)
5.				Prevalence Index worksheet:		
6.				- <u>Total % Cover of:</u>	<u>Multiply</u>	By:
7				– OBL species 0	x 1 =	0
	0	= Total Cov	er	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species 5	x 3 =	15
1. <u>Rhamnus cathartica</u>	5	Yes	FAC	– FACU species 90	x 4 =	360
2				UPL species 0	x 5 =	0
3				- Column Totals 95	- (A)	375 (B)
4				Prevalence Index = B/A	- () - 3.9	
5				Hydrophytic Vegetation Indicators		
6				- 1- Rapid Test for Hydrophytic	• Vegetation	2
7				- 2 - Dominance Test is > 50%	vegetation	1
	5	= Total Cov	er	3 - Prevalence Index is < 3.0	ſ	
Herb Stratum (Plot size: <u>5 ft</u>)				5 Prevalence index is 2 5.6	s1 (Provide	supporting
1. <i>Solidago canadensis</i>	70	Yes	FACU	- data in Remarks or on a separate	sheet)	supporting
2. <i>Fragaria virginiana</i>	20	No	FACU	– Problematic Hydrophytic Ver	etation ¹ (E:	xplain)
3. <i>Galium verum</i>	20	No	NI	- ¹ Indicators of hydric soil and wetla	nd hvdrolo	ogy must be
4. Valeriana officinalis	5	No	NI	present, unless disturbed or prob	ematic	.8)
5.				Definitions of Vegetation Strata:		
6.				Tree – Woody plants 3 in. (7.6 cm)	or more in	diameter at
7.				breast height (DBH), regardless of	height.	
8.				Sapling/shrub – Woody plants less	than 3 in. I	DBH and
9.				greater than or equal to 3.28 ft (1	m) tall.	
10.				Herb – All herbaceous (non-wood	/) plants, re	gardless of
11.				size, and woody plants less than 3	.28 ft tall.	
12				Woody vines – All woody vines gre	ater than 3	3.28 ft in
	115	= Total Cov	er	height.		
Woody Vine Stratum (Plot size: 30 ft)		-		Hydrophytic Vegetation Present?	Yes N	No 🖌
1						
2				-		
2				-		
				-		
*		- Total Cov	or	-		
	0		ei			
Remarks: (Include photo numbers here or on a se	parate sheet.)					
No positive indication of hydrophytic vegetation w	as observed (≥	50% of dom	ninant speci	ies indexed as FAC– or drier).		

SOIL

Profile Des	cription: (Describe	to the o	depth needed to o	docum	nent the	indicato	r or confirm the ab	sence of indicators.)
Depth	Depth Matrix Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 8.5	10YR 4/2	95	5YR 4/4	5	C	М	Silt Loam	
8.5 - 14	2.5Y 4/2	90	5YR 5/6	10	С	М	Silty Clay	
14 - 18	2.5Y 4/1	90	5YR 5/8	10	С	М	Silty Clay	
				·				
		- <u> </u>						
¹ Type: C = 0	Concentration, D =	Deplet	ion, RM = Reduce	d Mat	rix, MS =	Masked	Sand Grains. ² Lo	cation: PL = Pore Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for Problematic Hydric Soils ³ :
Histoso	I (A1)		Polyvalue Be	elow S	urface (S	58) (LRR	R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic E	pipedon (A2)		Thin Dark Su	urtace	(S9) (LRF	R, MLR	A 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
Black H	ISTIC (A3)			ky iviir	ieral (FT)	(LRR K, I	_)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hyurog Stratifie	en Sumue (A4)		Loanty Gley	eu Ivid atriv (l	UNX (FZ)			Dark Surface (S7) (LRR K, L)
Deplete	d Below Dark Surf	ace (A1	 Bedox Dark 	Surfa				Polyvalue Below Surface (S8) (LRR K, L)
Thick D	ark Surface (A12)		Depleted Da	ark Su	rface (F7)		Thin Dark Surface (S9) (LRR K, L)
Sandy M	Aucky Mineral (S1)		Redox Depr	essior	is (F8)	,		Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy (Gleved Matrix (S4)				. ,			Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy F	Redox (S5)							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Strippe	d Matrix (S6)							Red Parent Material (F21)
Dark Su	urface (S7) (LRR R. N	ILRA 14	49B)					Very Shallow Dark Surface (TF12)
								Other (Explain in Remarks)
³ Indicators	of hydrophytic veg	etatior	and wetland hyd	Irolog	y must b	e preser	it, unless disturbed	l or problematic.
Restrictive	Layer (if observed):							
	Туре:		None			Hydric	Soil Present?	Yes 🟒 No
	Depth (inches):							
Remarks:								
A positive i	ndication of hydric	soil wa	is observed. The o	riterio	on for hy	dric soil	is met.	

Soil Photos



Photo of Sample Plot North

Photo of Sample Plot East



Photo of Sample Plot South Photo of Sample Plot West


WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creek S	Solar Project		City/County:	Sprakers, M	ontgomery Co	ounty	Sampling Date:	2021-Aug-31
Applicant/Owner: Sun	nEast				State:	NY	Sampling Point:	W-JMP-01_PEM-3
Investigator(s): Jerry P	eake, Steve	Spotts, Abi Light			Section, Town	ship, Range:!	NA	
Landform (hillslope, terra	ace, etc.):	Channel		Local re	elief (concave,	convex, none)	: Concave	Slope (%): 2 to 5
Subregion (LRR or MLRA)): LRR I				at: 42.85191	8 Long	: -74.475319	Datum: WGS84
Soil Map Unit Name:	Darien silt lo	am, DaB					NWI classifi	cation: None
Are climatic/hydrologic c	onditions or	the site typical	for this time	of year?	Yes 🟒	_ No (If r	no, explain in Rema	rks.)
Are Vegetation, Se	oil,	or Hydrology	significan	tly disturbed	? Are "N	lormal Circum	stances" present?	Yes 🟒 No
Are Vegetation, Set	oil,	or Hydrology	naturally	problematic?	(If nee	ded, explain a	ny answers in Rem	arks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🖌 No	Is the Sampled Area within a Wetland?	Yes 🯒 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-01							
Remarks: (Explain alternative procedures h	Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is PEM. Area is wetland, all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum o	f one is required; check all f	<u>that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Marl Deposits (B15) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) 			g Roots (C3) Goils (C6)	 Surface Soil Cracks (B6) ✓ Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) ✓ Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) ✓ FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		_
Water Table Present?	Yes 🟒 No	Depth (inches):	18	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	15	
(includes capillary fringe)				-
Describe Recorded Data (stread	n gauge, monitoring well, a	erial photos, previous ins	pections), if	available:
Remarks:				
The criterion for wetland hydro	logy is met. A positive indic	ation of wetland hydrolog	y was obse	rved (primary and secondary indicators were present

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-01_PEM-3

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>30 ft</u>)	% Cover	Species?	Status	Number of Dominant Species Th	at a	(1)
1.		<u> </u>		Are OBL, FACW, or FAC:	3	(A)
2.				Total Number of Dominant Speci	es 🛛	(R)
3.				Across All Strata:		(B)
4.				 Percent of Dominant Species That 	t 75	(A/B)
5				Are OBL, FACW, or FAC:		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
6				 Prevalence Index worksheet: 		
7				- <u>Total % Cover of:</u>	<u>Multiply</u>	<u>/ By:</u>
/·		- Total Cov	or	- OBL species 100	x 1 =	100
Sanling/Shrub Stratum (Blot size: 15 ft)	0	- 10tai Cov	CI	FACW species 50	x 2 =	100
				FAC species 35	x 3 =	105
1				- FACU species 80	x 4 =	320
2.	·			- UPL species 10	x 5 =	50
3				- Column Totals 275	(A)	675 (B)
4.				Prevalence Index = B/A	=	-
5.				- Hydrophytic Vegetation Indicator	s:	
0		<u> </u>		1- Rapid Test for Hydrophyt	ic Vegetatio	n
/		Tabal Ca		2 - Dominance Test is >50%		
	0	= lotal Cov	er	\checkmark 3 - Prevalence Index is ≤ 3.0)1	
Herb Stratum (Plot size: <u>5 ft</u>)	50		EA CIAL	4 - Morphological Adaptatic	ns¹ (Provide	e supporting
	50	Yes	FACW	- data in Remarks or on a separate	sheet)	
2. Leersia oryzoides	50	Yes	OBL	 Problematic Hydrophytic Version 	getation ¹ (E	xplain)
3. Melliotus officinalis		Yes	FACU	 Indicators of hydric soil and wet 	and hydrolo	ogy must be
4. Persicaria amphibia	25	<u>No</u>	OBL	_ present, unless disturbed or prol	olematic	
5. Lythrum salicaria	25	<u>No</u>	OBL	_ Definitions of Vegetation Strata:		
6. Euthamia graminifolia	25	No	FAC	_ Tree – Woody plants 3 in. (7.6 cm) or more in	diameter at
7. <u>Ambrosia artemisiifolia</u>	25	No	FACU	_ breast height (DBH), regardless c	f height.	
8. Daucus carota	10	No	UPL	Sapling/shrub – Woody plants les	s than 3 in.	DBH and
9. Solidago canadensis	10	No	FACU		III) ldll.	ardlace of
10. <u>Trifolium repens</u>	10	No	FACU		iy) plants, re 3 28 ft tall	egal uless of
11				- Woody vines - All woody vines ar	eater than ?	8 28 ft in
12				- height.		.2010111
	265	= Total Cov	er	Ludrophytic Vegetation Present		Na
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)				Hydrophytic vegetation Present	res	NO
1. <u>Vitis riparia</u>	10	Yes	FAC	-		
2				_		
3				_		
4				_		
	10	= Total Cov	er			
				<u> </u>		

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

SOIL

Profile Des	cription: (Describe	to the d	epth needed to c	locum	nent the i	ndicator o	or confirm the al	bsence of indicato	ors.)
Depth	Matrix		Redo	x Feat	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Textu	ure	Remarks
0 - 5	10YR 2/2	100					Silty Clay	/ Loam	
5 - 10	10YR 3/1	95	7.5YR 3/4	5	С	М	Silty Clay	/ Loam	
10 - 20	2.5Y 3/1	90	5Y 3/2	10	D	М	Clay L	oam	
				·					
						<u> </u>			
·									
¹ Type: C = 0	Concentration, D =	Depletio	on, RM = Reduced	d Mat	rix, MS =	Masked S	and Grains. ² Lo	ocation: PL = Pore	Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for P	roblematic Hydric Soils ³ :
Histoso	(A1)		Polyvalue Be	elow S	urface (S	8) (LRR R,	MLRA 149B)	2 cm Muck (A10) (LRR K. L. MLRA 149B)
Histic E	oipedon (A2)		Thin Dark Su	ırface	(S9) (LRR	R, MLRA	149B)	Coast Prairie	Redox (A16) (LRR K. I. R)
Black H	stic (A3)		Loamy Muck	y Min	eral (F1)	(LRR K, L)		5 cm Mucky	Peat or Peat (S3) (I BR K. I. R)
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Ma	trix (F2)			Dark Surface	e (S7) (I RR K. I.)
Stratifie	d Layers (A5)		_✓ Depleted Ma	atrix (I	-3)			Polyvalue Be	elow Surface (S8) (LRR K. L)
Deplete	d Below Dark Surf	ace (A11) Redox Dark	Surfa	ce (F6)			Thin Dark Si	urface (S9) (I BR K. I.)
Thick Da	ark Surface (A12)		Depleted Da	rk Su	rface (F7)			Iron-Mangai	nese Masses (F12) (I RR K. L. R)
Sandy N	lucky Mineral (S1)		Redox Depre	essior	ıs (F8)			Piedmont Fl	oodplain Soils (F19) (MI RA 149B)
Sandy C	leyed Matrix (S4)							Mesic Spodi	c (TA6) (MI RA 144A 145 149B)
Sandy F	edox (S5)							Red Parent l	Material (E21)
Strippe	d Matrix (S6)							Verv Shallov	v Dark Surface (TE12)
Dark Su	rface (S7) (LRR R, I	MLRA 14	9B)					Other (Expla	ain in Remarks)
a. I	CI I I I I								
andicators	of hydrophytic ve	getation	and wetland hyd	rolog	y must be	e present,	unless disturbe	d or problematic.	
Restrictive	_ayer (if observed)):							
	Туре:		None	-		Hydric S	oil Present?		Yes 🟒 No
	Depth (inches):								
Remarks:									
A positive i	ndication of hydrid	soil was	s observed.						

Vegetation Photos





Soil Photos



Photo of Sample Plot East



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mont	gomery County		Sampling Date:	2021-Aug-31
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>V</u>	V-JMP-01_PFO-2
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		Sec	tion, Township, Ra	nge: NA	A	
Landform (hillslope, te	rrace, etc.):	Depression		Local relief	(concave, convex,	none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLR	RA): LRR	L		Lat:	42.8573837991	Long:	-74.4764940123	Datum: WGS84
Soil Map Unit Name:	llion silt loar	m, IIA					NWI classifica	ation: None
Are climatic/hydrologic	conditions o	n the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Remar	ks.)
Are Vegetation,	Soil,	or Hydrology	significant	tly disturbed?	Are "Normal C	ircumst	ances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally	problematic?	(If needed, exp	olain an <u>y</u>	y answers in Rema	arks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No								
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🯒 No						
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-01						
Remarks: (Explain alternative procedure	es here or in a separate rep	ort)							
Covertype is PFO. Area is wetland, all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of on	<u>e is required; check all th</u>	lat apply)	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Sur 	Water-S Aquatic Marl De Hydroge Oxidizee Presenc Recent I Thin ML gery (B7) Other (B	tained Leaves (B9) Fauna (B13) posits (B15) en Sulfide Odor (C1) d Rhizospheres on Living Roots (C3) e of Reduced Iron (C4) ron Reduction in Tilled Soils (C6) ick Surface (C7) Explain in Remarks)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream ga	Yes No _∠ Yes No _∠ Yes No _∠	Depth (inches): Depth (inches): Depth (inches): rial photos, previous inspections), if a	Wetland Hydrology Present? Yes No available:		
Remarks:					

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (at least two secondary indicators).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-01_PFO-2

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
	% Cover	Species?	Status	Number of Dominant S	Species That	5	(A)
1. <i>Fraxinus pennsylvanica</i>	30	Yes	FACW	Are OBL, FACW, or FAC	:		
2. <i>Salix alba</i>	25	Yes	FACW	Total Number of Domi	nant Species	6	(B)
3. <i>Malus sp.</i>	15	No	NI	Across All Strata:			
4. Carya ovata	15	No	FACU	Are OBL, FACW, or FAC:		(A/B)	
5		·		Prevalence Index work	sheet:		
6				Total % Cover	of:	Multiply	<u>By:</u>
/				OBL species	10	x 1 =	10
	85	= Total Cov	er	FACW species	130	x 2 =	260
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	5	x 3 =	15
1. <i>Fraxinus pennsylvanica</i>	20	Yes	FACW	FACU species	110	x 4 =	440
2. <i>Quercus rubra</i>	5	No	FACU	UPL species	0	x 5 =	0
3. <i>Ulmus americana</i>	5	No	FACW	Column Totals	255	(A)	725 (B)
4				Prevalence Ir	ndex = B/A =	2.8	- ()
5				Hydrophytic Vegetation	a Indicators:		
6				1- Rapid Test for H	-lydrophytic V	agetation	
7					st is $>50\%$	egetation	
	30	= Total Cov	er	2 - Dominance re 3 - Prevalence Inc	$1 e_{\rm X}$ is < 3.01		
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations ¹	(Provide	sunnorting
1. <i>Solidago canadensis</i>	75	Yes	FACU	data in Remarks or on	a separate sh	eet)	Supporting
2. <i>Ribes americanum</i>	50	Yes	FACW	Problematic Hvdr	ophytic Vege	tation ¹ (Ex	plain)
3. <i>Alliaria petiolata</i>	15	No	FACU	¹ Indicators of hvdric so	il and wetlan	d hvdrolog	zv must be
4. <i>Scirpus expansus</i>	10	No	OBL	present, unless disturb	ed or probler	natic	
5				Definitions of Vegetation	on Strata:		
6				Tree – Woody plants 3	in. (7.6 cm) or	more in o	diameter at
7.				breast height (DBH), re	gardless of h	eight.	
8.				Sapling/shrub - Woody	/ plants less tl	nan 3 in. D	OBH and
9.				greater than or equal t	o 3.28 ft (1 m) tall.	
10.				Herb – All herbaceous	(non-woody)	plants, reg	gardless of
11.				size, and woody plants	less than 3.2	8 ft tall.	
12.		·		Woody vines – All wood	dy vines great	er than 3.	28 ft in
	150	= Total Cov	er	height.			
Woody Vine Stratum (Plot size: 30 ft)		-		Hydrophytic Vegetatio	n Present?	′es 🟒 N	lo
1. Vitis riparia	5	Yes	FAC				
2.							
3.							
4.							
	5	= Total Cov	er				
		-	-	J			

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

SOIL

	ist) %	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
- 6 10YR 2/	2 100		_			Silty Clay Lo	am	
- 14 10YR 2/	2 90	5YR 3/4	10	С	Μ	Silty Clay Lo	am	
		<u> </u>					·	
			·					
	·							
e: C = Concentration	n, D = Deple	tion, RM = Reduced	l Matr	rix, MS =	Masked Sand Gr	ains. ² Locat	tion: PL = Pore Lini	ing, M = Matrix.
Histosol (A1)		Polwalue Be	low S	urface (S		149R)		
Histic Epipedon (A2)		Thin Dark Su	rface	(S9) (LRR	R. MLRA 149B)		_ 2 cm Muck (A10)) (LRR K, L, MLRA 149B)
3lack Histic (A3)		Loamy Muck	y Min	eral (F1)	(LRR K, L)		_ Coast Prairie Red	UOX (A16) (LKK K, L, K)
Hydrogen Sulfide (A	4)	Loamy Gleye	d Ma	trix (F2)			Dark Surface (S7	11 01 Pear (33) (LKK K, L, K)
Stratified Layers (A5)	Depleted Ma	ıtrix (F	-3)			Polyvalue Below	Surface (S8) (I RR K 1)
Depleted Below Dar	k Surface (A	11) 🖌 Redox Dark	Surfac	ce (F6)			Thin Dark Surfac	
Thick Dark Surface (412)	Depleted Da	rk Sur	rface (F7)			Iron-Manganese	e Masses (F12) (LRR K. L. R)
Sandy Mucky Minera	al (S1)	Redox Depre	ession	ıs (F8)			Piedmont Flood	plain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix	(S4)						Mesic Spodic (TA	(MLRA 144A, 145, 149B)
Sandy Redox (S5)							Rod Daront Mate	arial (E21)
							Reu Pareni iviale	Elidi (FZI)
Stripped Matrix (S6)							_ Very Shallow Da	rk Surface (TF12)
Stripped Matrix (S6) Dark Surface (S7) (LF	R R, MLRA	149B)					_ Very Shallow Dai _ Other (Explain in	rk Surface (TF12) n Remarks)
Stripped Matrix (S6) Dark Surface (S7) (Li icators of hydrophy	RR R, MLRA ⁻ tic vegetatio	149B) n and wetland hyd	rology	y must be	e present, unless		_ Very Shallow Da _ Other (Explain in r problematic.	rk Surface (TF12) n Remarks)
Stripped Matrix (S6) Dark Surface (S7) (Lf icators of hydrophy r ictive Layer (if obse	RR R, MLRA ⁻ tic vegetatio erved):	l 49B) n and wetland hyd	rology	y must be	e present, unless	disturbed or	_ Ked Falent Mate _ Very Shallow Da _ Other (Explain in r problematic.	rk Surface (TF12) n Remarks)
Stripped Matrix (S6) Dark Surface (S7) (Li <u>icators of hydrophy</u> :rictive Layer (if obse Type:	RR R, MLRA ⁻ tic vegetatio erved):	1 49B) n and wetland hyd None	rology	y must be	e present, unless	 s disturbed or sent?	_ Ked Parent Mate _ Very Shallow Da _ Other (Explain in r problematic. Yes	rk Surface (TF12) n Remarks)
Stripped Matrix (S6) Dark Surface (S7) (Li <u>icators of hydrophy</u> :rictive Layer (if obse Type: Depth (inche	RR R, MLRA	149B) n and wetland hyd None	rology	y must be	e present, unless Hydric Soil Pre	disturbed or sent?	_ Very Shallow Dai _ Other (Explain in r problematic. Yes _	rk Surface (TF12) n Remarks)

Vegetation Photos





Soil Photos



Photo of Sample Plot North



Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mont	gomery County		Sampling Date:	2021-Aug-31
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>W</u>	/-JMP-01_PSS-1
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		Sec	tion, Township, Ra	nge: NA	Ą	
Landform (hillslope, te	rrace, etc.):	Depression		Local relief	f (concave, convex,	none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.8588880193	Long:	-74.4771475641	Datum: WGS84
Soil Map Unit Name:	llion silt loar	n, IIA					NWI classifica	ation: None
Are climatic/hydrologic	conditions o	n the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Remarl	ks.)
Are Vegetation,	Soil,	or Hydrology	significant	tly disturbed?	Are "Normal C	lircumst	ances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally	problematic?	(lf needed, ex	plain an	y answers in Rema	rks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🖌 No	Is the Sampled Area within a Wetland?	Yes 🧹 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-01							
Remarks: (Explain alternative procedures h	Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is PSS. Area is wetland, all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Marl Deposits (B15) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) 	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 			
Field Observations: Surface Water Present? Yes No _✓ Depth (inches): Water Table Present? Yes No _✓ Depth (inches): Saturation Present? Yes No _✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)	Wetland Hydrology Present? Yes No 			
Remarks:				

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (at least two secondary indicators).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-01_PSS-1

Tree Stratum (Plot size: <u>30 ft</u>)	Absolute	Dominant	Indicator	Dominance Test worksheet:	1		
1 Calinalha	% Cover	species?	Status	Are OBL FACW or FAC	^{nat} 6	(A)	
Saix aiba Fraxinus americana	15	Yes	FACW	Total Number of Dominant Spe	cies 8	(B)	
3				Across All Strata:			
4				Are OBL, FACW, or FAC:	^{nat} 75	(A/B)	
5.				Prevalence Index worksheet:			
6				- <u>Total % Cover of:</u>	<u>Multiply</u>	<u>′ By:</u>	
7				- OBL species 0	x 1 =	0	
	25	= lotal Cov	er	FACW species 170	x 2 =	340	
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species 10	x 3 =	30	
1. <u>Salix alba</u>	50	Yes	FACW	- FACU species 45	x 4 =	180	
2. <i>Cornus racemosa</i>	5	No	FAC	UPL species 0	x 5 =	0	
3				- Column Totals 225	(A)	550 (B)	
4				Prevalence Index = B	A = 2.4	000 (0)	
5						·	
6				Hydrophylic Vegetation Indicat	ors:	-	
7				1- Rapid Test for Hydroph		n	
	55	= Total Cov	er	∠ 2 - Dominance Test is >50	% 0.01		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)		-		$\underline{}$ 3 - Prevalence index is \leq .	3.U'		
1. <i>Solidago gigantea</i>	40	Yes	FACW	4 - Morphological Adapta	ions' (Provide	supporting	
2. Impatiens capensis	35	Yes	FACW	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation1 (Evolution)			
3. Solidago canadensis	35	Yes	FACU	Problematic Hydrophytic Vegetation' (Explain) Indicators of hydric soil and wotland hydrology must be			
4. Epilobium hirsutum	25	No	FACW	 Indicators of hydric soil and wetland hydrology must be precent uplace disturbed or problematic 			
5.				Definitions of Vegetation Strate	•		
6.		·		Tree Woody plants 3 in (7.6 c	• m) or more in	diamotor at	
7				Iree – woody plants 3 in. (7.6 cm) or more in diameter a			
8				Sanling/shrub - Woody plants l	ess than 3 in	DBH and	
9		·		greater than or equal to 3.28 ft	(1 m) tall.		
10		·		Herb – All herbaceous (non-wo	ody) plants. re	gardless of	
11				size, and woody plants less tha	n 3.28 ft tall.	0	
10		·		Woody vines – All woody vines	greater than 3	3.28 ft in	
12		Tatal C		height.	-		
	135	= Iotal Cov	er	Hydrophytic Vegetation Prese	nt? Yes ./	No	
Woody Vine Stratum (Plot size: <u>30 ft</u>)	_			ingerophytic vegetation rieser	. IC3 <u>/</u>	<u> </u>	
1. <i>Fallopia scandens</i>	5	Yes	FAC	-			
2. Echinocystis lobata	5	Yes	FACW	-			
3				-			
4				_			
	10	= Total Cov	er				

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

SOIL

	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	т	exture	Remarks
0 - 8	10YR 2/2	100		_			Silty	Clay Loam	
- 18	10YR 2/2	90	10YR 4/6	10	C	M/PL	Silty	Clay Loam	
e: C =	Concentration, D =	Deplet	ion, RM = Reduce	d Ma	trix, MS =	Masked	Sand Grains.	² Location: PL = Pore	Lining, M = Matrix.
ric Soil	Indicators:							Indicators for Pr	oblematic Hydric Soils ³ :
Hydrog Stratifie Deplete Fhick D Sandy I Sandy I Sandy I Sandy I Sandy I Sandy I Sandy I Sandy I Sandy I	gen Sulfide (A4) ed Layers (A5) ed Below Dark Surfa ark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) urface (S7) (LRR R, N	ace (A1 MLRA 1	Loamy Gley Depleted M 1)_∕ Redox Dark Depleted Da Redox Depr	ed Ma atrix (Surfa ark Su essio	rerai (F1) (F3) (F3) (F6) (F6) (F7) (F8)	() (LKK K,	.,	5 cm Mucky Dark Surface Polyvalue Be Thin Dark Su Iron-Mangar Piedmont Flu Mesic Spodiu Red Parent M Very Shallow Other (Expla	Peat or Peat (S3) (LRR K, L, R) e (S7) (LRR K, L) elow Surface (S8) (LRR K, L) urface (S9) (LRR K, L) nese Masses (F12) (LRR K, L, R) oodplain Soils (F19) (MLRA 149B) c (TA6) (MLRA 144A, 145, 149B) Material (F21) v Dark Surface (TF12) in in Remarks)
icators	of hydrophytic veg	getatior	n and wetland hyd	drolog	gy must b	e preser	nt, unless distu	rbed or problematic.	
incutor 5									
trictive	Layer (if observed)	-				Hydric	Soil Present?		
trictive	Layer (if observed) Type:		None			nyunc.			Yes 🟒 No
trictive	Layer (if observed) Type: Depth (inches):		None						Yes _ 🖌 _ No

Vegetation Photos





Soil Photos







Photo of Sample Plot East



Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	: Cit	ty/County: Sp	prakers, Montg	omery County		Sampling Date:	2021-Aug-31
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>W</u>	-JMP-01_UPL-1
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		Sect	ion, Township, Ra	nge: N/	A	
Landform (hillslope, te	rrace, etc.):	Flat		Local relief	(concave, convex,	none):	None	Slope (%): 1 to 3
Subregion (LRR or MLR	RA): LRR	_		Lat:	42.8588555267	Long:	-74.4771340884	Datum: WGS84
Soil Map Unit Name:	llion silt loar	n, IIA					NWI classifica	tion:
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 C	ircumst	ances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	_ naturally pro	oblematic?	(If needed, exp	olain an	y answers in Rema	rks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No								
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No	lf yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all thr	ee wetland parameters are	present.							

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Surface 	 Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) gery (B7) Other (Explain in Remarks) 	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No Depth (inches): Yes No Depth (inches): Yes No Depth (inches):	_ Wetland Hydrology Present? Yes №∠ 		
Describe Recorded Data (stream ga	uge, monitoring well, aerial photos, previous inspections), i	f available:		
The criterion for wetland hydrology	is not met.			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-01_UPL-1

Tree Stratum (Plot size: <u>30 ft</u>)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
	% Cover	Species?	Status	Number of Dominant S	pecies That	3	(A)
1. Fraxinus americana	15	Yes	FACU	Total Number of Domi	hant Shecies		
2. <u>Salix alba</u>	10	Yes	FACW	Across All Strata:	and species	5	(B)
3				Percent of Dominant S	pecies That		
4.				Are OBL, FACW, or FAC		60	(A/B)
5.				Prevalence Index work	sheet:		
6	,,	·		Total % Cover	of:	<u>Multiply</u>	By:
/				OBL species	0	x 1 =	0
	25	= lotal Cov	er	FACW species	15	x 2 =	30
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	10	x 3 =	30
1. Cornus racemosa	10	Yes	FAC	FACU species	115	x 4 =	460
2. <u>Cornus amomum</u>	5	Yes	FACW	UPL species	0	x 5 =	0
3	·			Column Totals	140	(A)	520 (B)
4	·			Prevalence Ir	ndex = B/A =	3.7	
5				Hydrophytic Vegetation	n Indicators:		
6		<u> </u>		1- Rapid Test for H	-lydrophytic \	/egetatior	ı
7				2 - Dominance Te	st is >50%		
	15	= Total Cov	er	3 - Prevalence Inc	lex is $\leq 3.0^1$		
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations	¹ (Provide	supporting
1. Solidago canadensis	100	Yes	FACU	data in Remarks or on	a separate sh	neet)	
2				Problematic Hydr	ophytic Vege	tation ¹ (E)	(plain)
3				¹ Indicators of hydric so	il and wetlan	d hydrolo	gy must be
4				present, unless disturb	ed or proble	matic	
5				Definitions of Vegetation	on Strata:		
6				Tree – Woody plants 3	in. (7.6 cm) oi	r more in	diameter at
7				breast height (DBH), re	gardless of h	eight.	
8				Sapling/shrub - Woody	plants less t	han 3 in. I	OBH and
9				greater than or equal t	o 3.28 ft (1 m) tall.	
10				Herb – All herbaceous	(non-woody)	plants, re	gardless of
11				size, and woody plants	less than 3.2	8 ft tall.	
12				Woody vines – All wood	dy vines grea	ter than 3	.28 ft in
	100	= Total Cov	er	neight.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)				Hydrophytic Vegetatio	n Present?	res 🖌 N	lo
1							
2							
3							
4.							
	0	= Total Cov	er				
Remarks: (Include photo numbers here or on a se	eparate sheet.)			-			

SOIL

Inches Color (moist) % Loc lexture Remarks 0 - 14 10YR 3/2 100
0-14 10YR 3/2 100
14 - 20 10YR 3/2 75 10YR 4/6 8 C M Sitty Clay Loam 14 - 20 10YR 4/2 15
10YK 4/Z 15 11 15 11 15 11 15 11 15 11 15 11 15 11 15 12 15 13 15 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15 15 16 16 17 16 16 17 17 16 16 16 17 17 18 16 18 16 19 10 19 10 10 10 10 10 10 10 <td< th=""></td<>
we: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ric Soil Indicators: Indicators for Problematic Hydric Soils ² : Histic Epipedon (A2) Thin Dark Surface (S8) (LRR R, MLRA 149B) Jistic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Jake Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Strattified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Depressions (F8) Sandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 1444, 145, 14 Sandy Redox (S5) Red Parent Material (F21)
e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. Indicators for Problematic Hydric Soils ² : Indicators for Problematic Hydric Soils ² : Indicators for Problematic Hydric Soils ² : Indicators for Problematic Hydric Soils ² : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Istic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Istic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Istic Epipedon (A2) Thin Dark Surface (S9) (LRR K, L) Istratified Layers (A5) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Istandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Thin Dark Surface (A12) Depleted Dark Surface (F7) Istandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Redox (S5) Thin Dark Surface (A12) Depleted Dark Surface (F7) Istandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Redox (S5) Thin Dark Surface (A12) Depleted Dark Surface (F7) Sandy Redox (S5) Thin Dark Surface (A12) Depleted Dark Surface (F7) Sandy Redox (S5) Thin Dark Surface (A12)
e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. indicators for Problematic Hydric Soils ³ : istosol (A1)Polyvalue Below Surface (S8) (LRR R, MLRA 149B) istic Epipedon (A2)Thin Dark Surface (S9) (LRR R, MLRA 149B) istic Epipedon (A2)Thin Dark Surface (S9) (LRR R, MLRA 149B) istic Epipedon (A2)Thin Dark Surface (S9) (LRR R, MLRA 149B) istic Epipedon (A2)Thin Dark Surface (S9) (LRR K, L) istosol (A1)Coamy Mucky Mineral (F1) (LRR K, L) istosol Suffide (A4)Loamy Gleyed Matrix (F2) pepleted Below Dark Surface (A11) Redox Dark Surface (F6) hick Dark Surface (A12)Depleted Dark Surface (F7) andy Mucky Mineral (S1)Redox Depressions (F8)Piedmont Floodplain Soils (F19) (MLRA Mesic Spodic (TA6) (MLRA 144A, 145, 14 Red Parent Material (F21)
e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ic Soil Indicators: iit Soil Indicators: iit Soil (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) iistic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) ilack Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) iydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) tratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) hick Dark Surface (A12) Depleted Dark Surface (F7) andy Mucky Mineral (S1) Redox Depressions (F8) iandy Gleyed Matrix (S4) iandy Redox (S5) Red Parent Material (F21)
e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ic Soil Indicators: Indicators for Problematic Hydric Soils ² : listosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) listic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) lack Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) lydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) tratified Layers (A5) Depleted Matrix (F3) leepleted Below Dark Surface (A11) Redox Dark Surface (F6) hick Dark Surface (A12) Depleted Dark Surface (F7) andy Gleyed Matrix (S4) Redox Depressions (F8) andy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 14
e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ic Soil Indicators: Indicators for Problematic Hydric Soils ³ : istosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) istic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) lack Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) ydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) tratified Layers (A5) Depleted Matrix (F3) epleted Below Dark Surface (A11) Redox Dark Surface (F6) hick Dark Surface (A12) Depleted Dark Surface (F7) andy Mucky Mineral (S1) Redox Depressions (F8) andy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 14 andy Redox (S5) Red Parent Material (F21)
e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ic Soil Indicators: Indicators for Problematic Hydric Soils ³ : listosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) listic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) lack Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) lydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) tratified Layers (A5) Depleted Matrix (F3) pepleted Below Dark Surface (A11) Redox Dark Surface (F6) hick Dark Surface (A12) Depleted Dark Surface (F7) andy Mucky Mineral (S1) Redox Depressions (F8) andy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 14 andy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 14
e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ic Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hack Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Itratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Handy Mucky Mineral (S1) Redox Depressions (F8) Handy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA L44A, 145, 14) Handy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 14)
e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ic Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) tratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) hick Dark Surface (A12) Depleted Dark Surface (F7) andy Mucky Mineral (S1) Redox Depressions (F8) Gandy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 14 Matrix (F2) Red Parent Material (F21)
Indicators:Indicators for Problematic Hydric Soils ³ :distosol (A1)Polyvalue Below Surface (S8) (LRR R, MLRA 149B)distic Epipedon (A2)Thin Dark Surface (S9) (LRR R, MLRA 149B)Black Histic (A3)Loamy Mucky Mineral (F1) (LRR K, L)Hydrogen Sulfide (A4)Loamy Gleyed Matrix (F2)Litratified Layers (A5)Depleted Matrix (F3)Depleted Below Dark Surface (A11)Redox Dark Surface (F6)Thin Dark Surface (A12)Depleted Dark Surface (F7)Chick Dark Surface (A12)Depleted Dark Surface (F7)Giandy Gleyed Matrix (S4)Redox Depressions (F8)Giandy Redox (S5)Redox Depressions (F8)Giandy Redox (S5)Red Parent Material (F21)
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) Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) 5 cm Mucky Peat or Peat (S3) (LRR K, L) Itratified Layers (A5) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) hick Dark Surface (A12) Depleted Dark Surface (F7) Thin Dark Surface (S1) (LRR K, L) History Gleyed Matrix (S4) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA Handy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 14 Red Parent Material (F21)
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) S cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Dark Surface (S7) (LRR K, L) tratified Layers (A5) Depleted Matrix (F3) Dark Surface (S7) (LRR K, L) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) 'hick Dark Surface (A12) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) andy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 44A, 145, 14) andy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 14) Red Parent Material (F21)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, 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) Chick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Manganese Masses (F12) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA Sandy Redox (S5) Red Parent Material (F21)
Hydrogen Suffide (A4) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) Redox Dark Surface (F6)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1) Redox Depressions (F8) Iron-Manganese Masses (F12) (LKK Y, L Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA Sandy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 14- Sandy Matrix (S2) Red Parent Material (F21)
Sandy Gleyed Matrix (S4)
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)
licators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
trictive Layer (if observed):
Type: None Hydric Soil Present? Yes No 🗸
Depth (inches):

Vegetation Photos





Soil Photos



Photo of Sample Plot East



Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	:	City/County:	Sprakers, Mont	gomery County		Sampling Date:	2021-Aug-31
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>\</u>	N-JMP-01_UPL-2
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		Sec	tion, Township, Ra	nge: N/	4	
Landform (hillslope, te	rrace, etc.):	Hillslope		Local relief	(concave, convex,	none):	None	Slope (%): 1 to 3
Subregion (LRR or MLR	RA): LRR	_		Lat:	42.8573640793	Long:	-74.4763761349	Datum: WGS84
Soil Map Unit Name:	llion silt loar	n, IIA					NWI classific	ation:
Are climatic/hydrologic	conditions o	n the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Remar	rks.)
Are Vegetation,	Soil,	or Hydrology	significan	tly disturbed?	Are "Normal C	ircumst	ances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally	problematic?	(If needed, ex	olain an	y answers in Rema	arks.)

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

Hydrophytic Vegetation Present?	Yes No 🟒							
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒					
Wetland Hydrology Present?	Yes No 🟒	If yes, optional Wetland Site ID:						
Remarks: (Explain alternative procedures here or in a separate report)								
Covertype is UPL. Area is upland, not all three	e wetland parameters are	e present.						

HYDROLOGY

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

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-01_UPL-2

Tree Stratum (Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test works	heet: Species That		
1. Carva ovata	85	Yes	FACU	Are OBL, FACW, or FAC	:	1	(A)
2 Ouercus rubra	25	Yes	FACU	Total Number of Domin	nant Species	6	(D)
3		105	17/00	Across All Strata:		0	(B)
				Percent of Dominant S	pecies That	167	(A/R)
т. 				Are OBL, FACW, or FAC	:		(A/ D)
б				Prevalence Index work	sheet:		
7				Total % Cover	<u>of:</u>	<u>Multiply</u>	<u>By:</u>
/·	110	- Total Cover		OBL species	0	x 1 =	0
Sapling/Shrub Stratum (Plot size: 15 ft)	110			FACW species	0	x 2 =	0
1 Carva ovata	15	Voc	EACU	FAC species	20	x 3 =	60
			FACO	FACU species	253	x 4 =	1012
		cannot be greater		UPL species	0	x 5 =	0
2. Prunus virginiana	20	than a previous	FACU	Column Totals	273	(A)	1072 (B)
		species		Prevalence Ir	ndex = B/A =	3.9	
3. <i>Fraxinus americana</i>	10	Yes	FACU	Hydrophytic Vegetatior	n Indicators:		
4.				1- Rapid Test for H	- Hydrophytic V	/egetation	1
5.				2 - Dominance Te	st is > 50%		
6.				3 - Prevalence Ind	lex is $\leq 3.0^1$		
7.				4 - Morphological	Adaptations	¹ (Provide	supporting
	45	= Total Cover		data in Remarks or on	a separate sh	neet)	
Herb Stratum (Plot size: 5 ft)				Problematic Hydr	ophytic Vege	tation ¹ (E>	(plain)
1. Solidago canadensis	70	Yes	FACU	¹ Indicators of hydric so	il and wetlan	d hydrolo	gy must be
2. Symphyotrichum lateriflorum	15	No	FAC	present, unless disturb	ed or proble	matic	
3. Fraxinus americana	15	No	FACU	Definitions of Vegetation	on Strata:		
4. Rubus idaeus	8	No	FACU	Tree – Woody plants 3	in. (7.6 cm) oi	r more in	diameter at
5. Alliaria petiolata	5	No	FACU	breast height (DBH), re	gardless of h	eight.	
6.				Sapling/snrub - woody	/ plants less t	nan 3 in. L Vtall	JBH and
7.				Herb All borbacoous	(non woody)	plants ro	ardless of
8				size and woody plants	less than 3.2	8 ft tall	gai uless of
9				Woody vines – All wood	dy vines great	ter than 3	28 ft in
10				height.	a) 11100 81 0a		201011
11.				Hydrophytic Vegetatio	n Procont?		
12				Tiyarophytic vegetatio	in resent:	103 1	₩0 <u>v</u>
· · · · · · · · · · · · · · · · · · ·	113	= Total Cover					
Woody Vine Stratum (Plot size: 30 ft)							
1 Vitis riparia	5	Ves	FAC				
2		105	1770				
3							
·							
	5	= Total Cover					
	5			J			
Remarks: (Include photo numbers here or or	i a separat	e sheet.)					

SOIL

	Color (moist)	%	Color (moist)	%	Type ¹	Loc ² Te	xture	Remarks
) - 12	10YR 4/4	100		_		Silty C	lay Loam	
				·			·	
				_				
ie: C = C ric Soil	Concentration, D = I Indicators:	Depletio	n, RM = Reduced	Matr	ix, MS = I	Masked Sand Grains.	Location: PL = Pore Lining, M = Indicators for Problematic H	Matrix. ydric Soils ³ :
Histoso	l (A1)		Polyvalue Bel	ow Si	urface (S	B) (LRR R, MLRA 149B)	2 cm Muck (A10) (I RR K	I MIRA 149B)
_ Histic Epipedon (A2) Thin Dark Surface (S9) (LRR					(S9) (LRR	R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
_ Black Histic (A3) Loamy Mucky Mineral (F1) (Li					eral (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)	
_ Stratilied Layers (AS) Depleted Matrix (F3)						Polyvalue Below Surface	(S8) (LRR K, L)	
hick Da	ark Surface (A12)		Depleted Dar	k Sur	face (F7)		Thin Dark Surface (S9) (Ll	RR K, L)
andy N	lucky Mineral (S1)		Redox Depre	ssion	s (F8)		Iron-Manganese Masses	(F12) (LRR K, L, R)
Sandy G	Gleyed Matrix (S4)						Pleamont Floodplain Sol	IS (F19) (MLKA 149B)
Sandy R	edox (S5)						Mesic Spould (TA6) (MLR/ Pod Parent Material (E21	ч 144A, 145, 149B)
Stripped	d Matrix (S6)						Very Shallow Dark Surfac) e (TE12)
Dark Su	rface (S7) (LRR R, N	LRA 149	В)				Other (Explain in Remark	(s)
icators	of hydrophytic veg	etation a	nd wetland hydr	ology	v must be	present, unless distur	ed or problematic.	
rictive l	Layer (if observed):							
	Type:		None			Hydric Soil Present?	Yes No	0
	Depth (inches):							
	e to coarse fragmer	ts.						
arks: sal due								
arks: sal due								
arks: sal due								
arks: sal due								
a rks: sal due								
arks: sal due								
arks: sal due								
arks: sal due								
arks: sal due								
arks: sal due								
a rks: Isal due								
narks: usal due								
a arks: ısal due								
narks: usal due								
a rks: Isal due								

Vegetation Photos




Soil Photos



Photo of Sample Plot East



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t (City/County:	Sprakers, Mor	ntgomery County		Sampling Date: 20)21-Aug-31	
Applicant/Owner: S	unEast				State: NY		Sampling Point: W-JI	MP-01_UPL-3	
Investigator(s): Jerry	/ Peake, Steve	Spotts, Abi Light		Se	ection, Township, Rai	nge: N	4		
Landform (hillslope, te	rrace, etc.):	Flat		Local reli	ef (concave, convex,	none):	None	Slope (%):	1 to 3
Subregion (LRR or MLF	RA): LRR	L		La	t: 42.851831	Long:	-74.475345	Datum: W	GS84
Soil Map Unit Name:	Darien silt l	oam, DaB					NWI classification	on:	
Are climatic/hydrologi	c conditions o	n the site typical f	for this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Remarks.	.)	
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significant naturally	tly disturbed? problematic?	Are "Normal C (If needed, exp	ircumst blain an	ances" present? y answers in Remark	Yes No s.)	_

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

Hydrophytic Vegetation Present?	Yes No 🟒		
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes No 🟒
Wetland Hydrology Present?	Yes No _	If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures her	re or in a separate report)		
Covertype is UPL. Area is upland, not all three	e wetland parameters are	present. Circumstances are not normal due to mowing	g of vegetation.

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one	e is required; check all that apply)	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Sur 	 Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) gery (B7) Other (Explain in Remarks) 	 Drainage Patterns (B0) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _ Depth (inches): Yes No _ Depth (inches): Yes No _ Depth (inches):	Wetland Hydrology Present? Yes No		
Describe Recorded Data (stream ga	uge, monitoring well, aerial photos, previous inspections), if	available:		
Remarks:				
The criterion for wetland hydrology	is not met.			

L

VEGETATION -- Use scientific names of plants.

Sampling Point: <u>W-JMP-01_UPL-3</u>

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test works	heet: Species That	1	(A)
1.				Are OBL, FACW, or FAC	:	· ·	(~)
2.				Total Number of Domi	nant Species	3	(B)
3				Across All Strata:			
4				- Are OBL, FACW, or FAC	pecies That	33.3	(A/B)
5				Prevalence Index work	sheet:		
6				- Total % Cover	of:	Multiply	Bv:
7				- OBL species	0	x 1 =	0
	0	= Total Cov	er	FACW species	25	x 2 =	50
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft</u>)				FAC species	15	x 3 =	45
1				- FACU species	90	x 4 =	360
2				- UPL species	15	x 5 =	75
3				Column Totals	145	(A)	530 (B)
4				Prevalence li	ndex = B/A =	3.7	
5				Hydronbytic Vegetation	n Indicators:		
6				1- Rapid Test for	Hydronhytic \	/egetation	h
7				2 - Dominance Te	st is > 50%	egetation	
	0	= Total Cov	er	3 - Prevalence Inc	$dex is < 3.0^{1}$		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphologica	Adaptations	¹ (Provide	supporting
1. Solidago canadensis	35	Yes	FACU	data in Remarks or on	a separate sh	neet)	
2. <i>Phalaris arundinacea</i>	25	Yes	FACW	Problematic Hydi	, rophytic Vege	tation ¹ (Ex	xplain)
3. <i>Phleum pratense</i>	25	Yes	FACU	¹ Indicators of hydric so	oil and wetlan	d hydrolo	gy must be
4. <i>Ambrosia artemisiifolia</i>	20	No	FACU	present, unless disturb	bed or proble	matic	
5. <i>Artemisia vulgaris</i>	15	No	UPL	Definitions of Vegetati	on Strata:		
6. <i>Trifolium repens</i>	10	No	FACU	Tree – Woody plants 3	in. (7.6 cm) oi	r more in	diameter at
7. <i>Panicum capillare</i>	10	No	FAC	breast height (DBH), re	gardless of h	eight.	
8. <i>Persicaria perfoliata</i>	5	No	FAC	Sapling/shrub - Wood	y plants less t	han 3 in. I	DBH and
9				greater than or equal t	:o 3.28 ft (1 m) tall.	
10				Herb – All herbaceous	(non-woody)	plants, re	gardless of
11				size, and woody plants	less than 3.2	8 ft tall.	
12				Woody vines – All woo	dy vines grea	ter than 3	.28 ft in
	145	= Total Cov	er	neight.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)				Hydrophytic Vegetatio	on Present?	/es N	No 🖌
1							
2							
3.							
4.							
	0	= Total Cov	er	-			
Remarks: (Include photo numbers here or on a const	ate sheet)	-					
No positive indication of hydrophytic vegetation was	observed (≥	50% of dom	ninant speci	es indexed as FAC– or dr	ier).		

SOIL

) - 8 - 15 5 - 17	100/15 2/2	%	Color (moist)	%	Type ¹	Loc ² T	exture Remar	⁻ ks
- 15 5 - 17	10YR 2/2	100				Si	t Loam	
5 - 17	10YR 2/2	95	5YR 4/6	5	С	M Silty	Clay Loam	
	10YR 2/2	90	5YR 4/6	10	С	M Silty	Clay Loam	
		·						
e: C = Con	centration, D =	Depletic	on, RM = Reduced	Matr	1x, MS = I	Masked Sand Grains.	² Location: PL = Pore Lining, M = Matrix.	1.2
ric Soil Indi	icators:		Debaselue De				Indicators for Problematic Hydric Soi	IS ³ :
HISTOSOI (A Histic Ening	l) edon (A2)		Polyvalue Be	10W S rface	urtace (Sa (S9) (I PP	5) (LRR R, MLRA 1498) P MIPA 1498)	2 cm Muck (A10) (LRR K, L, MLRA	149B)
Black Histic	c (A3)		Loamy Muck	v Min	eral (F1)	LRR K. L)	Coast Prairie Redox (A16) (LRR K,	L, R)
lydrogen S	Sulfide (A4)		Loamy Gleye	d Ma	trix (F2)		5 cm Mucky Peat or Peat (S3) (LR	R K, L, R)
stratified La	ayers (A5)		Depleted Ma	trix (F	3)		Polyvalue Below Surface (S8) (I R	R I I
Depleted B	Below Dark Surf	ace (A11)_✓ Redox Dark S	Surfac	te (F6)		Thin Dark Surface (S9) (LRR K, L)	, _,
hick Dark	Surface (A12)		Depleted Da	rk Sur	face (F7)		Iron-Manganese Masses (F12) (LF	RR K, L, R)
andy Muc	ky Matrix (S1)		Redox Depre	ession	is (F8)		Piedmont Floodplain Soils (F19) (MLRA 149B
Sandy Bed	ox (S5)						Mesic Spodic (TA6) (MLRA 144A, 1	45, 149B)
Strinned M	latrix (S6)						Red Parent Material (F21)	
Dark Surfa	ce (S7) (LRR R. I	MLRA 14	9B)				Very Shallow Dark Surface (TF12)	
							Other (Explain in Remarks)	
licators of h	hydrophytic veg	getation	and wetland hyd	rology	/ must be	e present, unless distu	bed or problematic.	
trictive Lay	er (if observed)	•						
Typ	be:		None			Hydric Soil Present?	Yes No	
De	pth (inches):							

Vegetation Photos





Soil Photos



Photo of Sample Plot East



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	ek Solar Projec	t	City/County:	Sprakers, Mon	tgomery County		Sampling Date: 2	2021-Aug-31	
Applicant/Owner: S	iunEast				State: NY		Sampling Point: W-	JMP-02_PUB-1	
Investigator(s): Jerry	y Peake, Steve	Spotts, Abi Light		See	ction, Township, Ra	nge: N	A		
Landform (hillslope, te	errace, etc.):	Depression		Local relie	f (concave, convex,	, none):	Concave	Slope (%):	1 to 3
Subregion (LRR or MLI	RA): LRR	L		Lat	42.852336	Long:	-74.473941	Datum:W	GS84
Soil Map Unit Name:	Water, W						NWI classificat	ion: PUB	
Are climatic/hydrologi	c conditions o	on the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Remarks	s.)	
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significant naturally	tly disturbed? problematic?	Are "Normal 0 (If needed, ex	Circumst plain an	tances" present? y answers in Remarl	Yes _✔ No _ ks.)	

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

Hydrophytic Vegetation Present?	Yes 🟒 No						
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🯒 No				
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-02				
Remarks: (Explain alternative procedures l	nere or in a separate repor	t)					
Covertype is PUB. Area is wetland, all three wetland parameters are present.							

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of	one is required; check al	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial In Sparsely Vegetated Concave Statement 	Wate Aqua Marl Hydro Oxidi Prese Recer Thin I magery (B7) Other Surface (B8)	r-Stained Leaves (B9) tic Fauna (B13) Deposits (B15) ogen Sulfide Odor (C1) zed Rhizospheres on Living ence of Reduced Iron (C4) nt Iron Reduction in Tilled S Muck Surface (C7) r (Explain in Remarks)	g Roots (C3) Soils (C6)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	16	
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				
Describe Recorded Data (stream	gauge, monitoring well,	aerial photos, previous ins	pections), if	available:

Remarks:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (primary and secondary indicators were present).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-02_PUB-1

Tree Stratum (Plot size: 20 ft.)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
	% Cover	Species?	Status	Number of Dominant S	Species That	1	(A)
1				Total Number of Domi	nant Chariar		
2		<u> </u>		Across All Strata	nant species	3	(B)
3				Percent of Dominant S	pecies That		
4		<u> </u>		Are OBL, FACW, or FAC	:	33.3	(A/B)
з		<u> </u>		Prevalence Index work	sheet:		
0		·		Total % Cover	of:	<u>Multiply</u>	<u>By:</u>
/				OBL species	80	x 1 =	80
	0	= lotal Cov	er	FACW species	0	x 2 =	0
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	0	x 3 =	0
1. <u>Rhus glabra</u>	40	Yes	UPL	FACU species	20	x 4 =	80
2. Solidago canadensis	0	No	FACU	UPL species	40	x 5 =	200
3				Column Totals	140	(A)	360 (B)
4				Prevalence li	ndex = B/A =	2.6	(-)
5							
6				Hydrophytic vegetation	n Indicators:		
7.				1- Rapid Test for I	Hydrophytic V	/egetatior	1
	40	= Total Cov	er	2 - Dominance Te	st is > 50%		
Herb Stratum (Plot size: 5 ft)		-		3 - Prevalence Inc	dex is $\leq 3.0^{1}$		
1. Lemna minor	80	Yes	OBL	4 - Morphologica	Adaptations	¹ (Provide	supporting
2. Solidago canadensis	20	Yes	FACU	data in Remarks or on	a separate sh	ieet)	
3				Problematic Hydr	ophytic Vege	tation ¹ (E)	kplain)
		·		¹ Indicators of hydric sc	il and wetlan	d hydrolo	gy must be
		<u> </u>		present, unless disturc	ed or problei	matic	
5		·		Definitions of Vegetation	on Strata:		
6		<u> </u>		Tree – Woody plants 3	in. (7.6 cm) or	r more in	diameter at
/		<u> </u>		breast height (DBH), re	gardless of h	eight.	
8				Sapling/shrub – Woody	/ plants less t	han 3 in. I	DBH and
9		·		greater than or equal t	ο 3.28 π (1 m) tall.	
10				Herb – All herbaceous	(non-woody)	plants, re	gardless of
11				size, and woody plants	less than 3.2		20.6.
12				Woody vines – All woo	dy vines great	ter than 3	.28 ft in
	100	= Total Cov	er	neight.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)		_		Hydrophytic Vegetatic	on Present?	res 🟒 N	No
1.							
2.		·		•			
3.							
4		·		•			
··	0	= Total Cov	er				
Remarks: (Include photo numbers here or on a separa	te sheet.)						

All tree and shrub species present within the vicinity of the wetland boundary were rooted in upland areas experiencing different soil and/or hydrologic conditions and therefore not included within the data point.

SOIL

Depai maant	Redox Fe	atures	
inches) Color (moist)	% Color (moist) %	Mode Type1 Loc2 Texts	Jre Remarks
vpe: C = Concentration. D = De		atrix. MS = Masked Sand Grain:	s. ² Location: PL = Pore Lining. M = Matrix.
ydric Soil Indicators:	<u> </u>		Indicators for Problematic Hydric Soils ³ :
_ Histosol (A1) _ Histic Epipedon (A2) _ Black Histic (A3) _ Hydrogen Sulfide (A4) _ Stratified Layers (A5) _ Depleted Below Dark Surface _ Thick Dark Surface (A12) _ Sandy Mucky Mineral (S1) _ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) _ Dark Surface (S7) (LRR R, MLF	Polyvalue Belov Thin Dark Surfa Loamy Mucky M Loamy Gleyed M Depleted Matrix (A11) Redox Dark Sur Depleted Dark Sur Redox Depressi	v Surface (S8) (LRR R, MLRA 149 ce (S9) (LRR R, MLRA 149B) /lineral (F1) (LRR K, L) /latrix (F2) k (F3) face (F6) Surface (F7) ions (F8)	B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
ndicators of hydrophytic vegeta	ation and wetland hydrol	ogy must be present, unless dis	turbed or problematic.
estrictive Layer (if observed): Type: Depth (inches):	None	Hydric Soil Present	? Yes 🖌 No
ue to inundation a clear soil pro lundation, FACW and OBL veget	ofile was unobtainable. S tation species, and a defi	oils are assumed to be hydric. S nitive wetland boundary.	ioils were assumed to be hydric due to the presence of

Hydrology Photos



Vegetation Photos



Photo of Sample Plot East



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	<u> </u>	ity/County:	Sprakers, Montg	gomery County		Sampling Date:	2021-Aug-31
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>W</u>	/-JMP-02_UPL-1
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		Sect	ion, Township, Rai	nge: N/	A	
Landform (hillslope, te	rrace, etc.):	Top of pond be	erm	Local relief	(concave, convex,	none):	Convex	Slope (%): 2 to 5
Subregion (LRR or MLR	RA): LRR	L		Lat:	42.8523004246	Long:	-74.4739971134	Datum: WGS84
Soil Map Unit Name:	Darien silt lo	am, DaB					NWI classifica	tion: None
Are climatic/hydrologic	conditions o	n the site typical fo	or this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Remarl	<s.)< td=""></s.)<>
Are Vegetation,	Soil,	or Hydrology	_ significant	tly disturbed?	Are "Normal C	ircumst	ances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	_ naturally	problematic?	(If needed, exp	olain an	y answers in Rema	rks.)

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

Hydrophytic Vegetation Present?	Yes No 🟒								
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No 🟒	If yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures her	Remarks: (Explain alternative procedures here or in a separate report)								
Covertype is UPL. Area is upland, not all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of on	e is required; check all t	hat apply)	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Surface 	Water-t Aquatio Marl Du Hydrog Oxidize Presen Recent Thin M agery (B7) Other (rface (B8)	Stained Leaves (B9) c Fauna (B13) eposits (B15) gen Sulfide Odor (C1) ed Rhizospheres on Living Roots (C3) ce of Reduced Iron (C4) Iron Reduction in Tilled Soils (C6) uck Surface (C7) Explain in Remarks)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations:					
Surface Water Present?	Yes No 🟒	Depth (inches):	_		
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No	·_~	
Saturation Present?	Yes No 🟒	Depth (inches):			
(includes capillary fringe)					
Describe Recorded Data (stream ga	iuge, monitoring well, a	erial photos, previous inspections), if	available:		
Kemarks:	is not mot				
The childron of wetland hydrology	is not met.				

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-02_UPL-1

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
	% Cover	Species?	Status	Number of Dominant S	Species That	1	(A)
1				Are OBL, FACW, or FAC	:		
2				Iotal Number of Domi	nant Species	3	(B)
3				Across Air Strata.	nacios That		
4				Are OBL_FACW or FAC		33.3	(A/B)
5				Prevalence Index work	sheet:		
6				Total % Cover	of.	Multiply	Bv:
7				OBL species	0	x 1 =	<u></u> 0
	0	= Total Cove	er	FACW species	0	x 2 =	0
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	30	x 3 =	90
1. <i>Rhus glabra</i>	85	Yes	UPL	FACU species	85	× 4 =	340
2					85	× 5 =	/25
3				Column Totals	200	(A) -	42J
4				Prevalence Ir	200	(~) / 3	000 (D)
5						<u></u> +.J	
6				Hydrophytic Vegetation	n Indicators:		
7				1- Rapid Test for I	Hydrophytic V	egetation	
	85	= Total Cove	er	2 - Dominance le	St IS > 50%		
Herb Stratum (Plot size: <u>5 ft</u>)		_		3 - Prevalence inc	$10 \times 15 \le 3.0^{\circ}$	1 (Duessiale	
1. Solidago canadensis	85	Yes	FACU	4 - Morphological	Adaptations	(Provide	supporting
2. Microstegium vimineum	30	Yes	FAC	Problematic Hydr	onhytic Vege	tation ¹ (Ex	nlain)
3.				Indicators of hydric sc	il and wetlan	d hydrolo	øv must he
4.				present, unless disturb	ed or proble	matic	By mast be
5.				Definitions of Vegetation	on Strata:		
6.				Tree – Woody plants 3	in. (7.6 cm) o	r more in (diameter at
7.		· · · · ·		breast height (DBH), re	gardless of h	eight.	
8.		· · · · ·		Sapling/shrub - Woody	/ plants less t	han 3 in. [OBH and
9.				greater than or equal t	o 3.28 ft (1 m) tall.	
10.		· · · · ·		Herb – All herbaceous	(non-woody)	plants, reį	gardless of
11.				size, and woody plants	less than 3.2	8 ft tall.	
12.				Woody vines – All wood	dy vines grea	ter than 3	.28 ft in
	115	= Total Cove	er	height.			
Woody Vine Stratum (Plot size: 30 ft)		-		Hydrophytic Vegetatio	n Present?	res N	lo
1.							
2.							
3.							
4.							
	0	= Total Cove	er				
Remarks: (include photo numbers here or on a separa	ate sneet.)						

SOIL

Color (moist) K Color (moist) K Type' Lock Texture Remarks 0-10 10YR 2/2 100 0 10YR 4/6 10 C M Silt Learn	Denth	cription: (Describe Matrix	to the d	epth needed to c	OCUM CEAST	ient the i	ndicator	or confirm the ai	osence of indicato	rs.)	
Littes/ Color (Inded) M Type Loc Textule Remarks 0-15 10YR 2/2 80 10YR 4/6 10 C M Silty Clay Learn 0-15 10YR 4/2 10 Integration Silty Clay Learn Integration 0-15 10YR 4/2 10 Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration Integration	(inchoc)	Color (moist)	04	Color (moist)			Loc2	Toyt			Pomarka
2-10 101K 4/2 100	(incries)		<u> </u>		90	Type.	LOC	Text.	ure		Remarks
2-15 10YR 4/2 10 L M Sirty Clay Loam 0-15 10YR 4/2 10 L M Sirty Clay Loam 0-15 10YR 4/2 10 L M Sirty Clay Loam 0-15 10YR 4/2 10 L M Sirty Clay Loam 0-15 10YR 4/2 10 L M Sirty Clay Loam 0-15 10YR 4/2 10 L M Sirty Clay Loam 0-15 10YR 4/2 10 L M Sirty Clay Loam 0-15 10YR 4/2 10 L M Sirty Clay Loam 0-15 10YR 4/2 10 L M Sirty Clay Loam 0-15 10YR 4/2 10 L M Sirty Clay Loam 10 Loam Sirty Clay Loam Loam Sirty Clay Loam Loam Sirty Clay Loam Loam Sirty Clay Loam 115 Loam Sirty Clay Loam 115 Loam Sirty Clay Loam Loam Sirty Clay Loam Loam Sirty Clay Loam Loam Sirty Clay Loam	10 15	101R 2/2									
0-15 10/14/4/2 10	10 - 15	10YR 2/2	08	10YR 4/6	10		M	Silty Cla	y Loam		
ministry ministry minis	10 - 15	10YR 4/2	10		·	·					
ge: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ?Location: PL = Pore Lining, M = Matrix. indicators: Indicators for Problematic Hydric Soile? Histoc Join Michael (A1) Polyvalue Below Surface (55) (LRR R, MLRA 1499)					·						
pe: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Indicators tor Problematic Hydric Solist: Indicators for Problematic Hydric Solist: Histsos (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 1498)											
ge: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. Location: PL = Pore Lining, M = Matrix. Indicators: Indicators: Indicators for Problematic Hydric Solls? Hists Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, R) Biack Histic (A3) Loamy Gleyed Matrix (F2) Son Mucky Mineral (F1) (LRR K, L) Straffied Layers (A5) Depleted Matrix (F3) Dark Surface (S9) (LRR K, L) Depleted Below Dark Surface (F3) Depleted Matrix (F3) Polyvalue Below Surface (F3) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Thin Dark Surface (F3) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Polyvalue Below Surface (F12) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Polyvalue Redomore Floodplain Solf (F19) (MLRA 149B) Sandy Mucky S(S) Red Parent Material (F21) Other (Explain in Remarks) Stripped Matrix (S6) Red Parent Material (F71) Unorthage (F12) Dark Surface (S7) (LRR R, L) Hydric Soil Present? Yes											
mpe: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. indicators (r)											
pe: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Indicators: Indicators: Indicators for Problematic Hydric Solis*. Hists: Depledon (A2) Thin Dark Surface (SB) (LRR R, MLRA 149B) _2 cm Muck (A10) (LRR K, L, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) _5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Straftied Layers (A5) Depleted Matrix (F2)											
pp: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ?Location: PL = Pore Lining, M = Matrix. Indicators for Poblematic Hydric Soils*. Indicators for Poblematic Hydric Soils*. Histosol (A2) Thin Dark Surface (S9) (LRR R, MLRA 1498) _C cast Prairie Redox (A10) (LRR K, L, R) Black Histic (A3) _Loamy Mucky Mineral (F1) (LR K, L) _S cm Muck (A10) (LRR K, L, R) Stratified Layers (A5) _Depleted Matrix (F2) _Dark Surface (S3) (LRR K, L)											
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. idicators: Indicators: Indicators for Problematic Hydric Soils? Histos Epledon (A2) Thin Dark Surface (S9) (LRR K, LA 1498) 2 cm Muck (A10) (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) Yntick Dark Surface (A11) Redox Dark Surface (F6) Polyvalue Below Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Thin Dark Surface (S1) (LRR K, L, R) Sandy Gleyed Matrix (S6) Metrix (S6) Peleteent Material (F21) Sandy Gleyed Matrix (S6) Wery Shallow Dark Surface (F7) Thin Dark Surface (S7) (LRR K, L, R) Sandy Rdox (S5) Metrix Surface (F7) Red Rarent Material (F21) Sandy Rdox (S5) Wery Shallow Dark Surface (F7) Red Rarent Material (F21) Stripped Matrix (S6) Wery Shallow Dark Surface (F7) Red Rarent Material (F21) Dark Surface (S7) (LRR R, MLRA 1498) Cost Praine Material (F21) Polyvalue Below Surface (F7) Stripped Matrix (S6) Wery Shallow Dark Surface (F7) Red Rarent Material (F21) Dark Surface (S7) (LRR R, MLRA 1498) Other (Explain in Remarks) dicators					·						
per: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Indicators : Indicators for Problematic Hydric Soils*: Histosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 1498) 2 cm Muck (A10) (LRR K, L RRA 1498) Histosol (A2) Thin Dark Surface (S7) (LRR K, L) 5 cm Muck (A10) (LRR K, L R) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Muck (A10) (LRR K, L R) Stratified Layers (A5) Depleted Matrix (F2) Dark Surface (S3) (LRR K, L) Stratified Layers (A5) Depleted Matrix (F3) Polyvalue Below Surface (S3) (LRR K, L) Depleted Park Surface (F1) Thin Dark Surface (F7) Thin Dark Surface (S3) (LRR K, L) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) Sandy Redox (S5)					·						
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Histool (A)	$y p \in C = C$		Depietio		i iviati	17, 1913 -	wasked :			oblomati	ic Ludric Saile3.
Insusor (A1)	Juric Soll			Dobardura D	lov: C	urface (C	0) (1 00 0		mulcators for Pr	opiemati	c nyuric solis ³ :
Insue spipeoun (x, y)	_ HISTOSO	i (AT)		Polyvalue Be	IOW S	uriace (S		, IVILKA 149B) 140D)	2 cm Muck (A	410) (LRR	: K, L, MLRA 149B)
Loader fraide (r/2)	_ HISUC E	Sipedon (AZ)				(39) (LKK	יי עוב א, ועובוא וו ססוע	1490)	Coast Prairie	Redox (/	416) (LRR K, L, R)
Index (er)		nstic (AS)			y iviiri d Ma	triv (E2)			5 cm Mucky I	Peat or P	eat (S3) (LRR K, L, R)
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Thick Dark Surface (A12)Depleted Dark Surface (F7)Thick Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1)Redox Depressions (F8)Piedmont Floodphilon Solis (F12) (URR K, L, R) Sandy Redox (S5) Mesic Spodic (TA6) (MLRA 1448, 145, 149B)Red Parent Material (F21) Very Shallow Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic Type: None Hydric Soil Present? Yes No Depth (inches): marks:	Deplete	d Below Dark Surf	ace (A11	Bedox Dark	Surfac	-e (F6)			Polyvalue Be	low Surfa	ace (S8) (LRR K, L)
Sandy Mucky Mineral (S1)Redox Depressions (F8)Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4)Mesic Spodic (TA6) (MLRA 149B) Sandy Redox (S5)Red Parent Material (F21)Red Parent Material (F21)Ntrace (TF12)Other (Explain in Remarks) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (If observed):Type:NoneHydric Soil Present? YesNo marks:	Thick Da	ark Surface (A12)		Depleted Da	rk Sui	face (F7)			Thin Dark Su	rface (S9) (LRR K, L)
Sandy Gleved Matrix (S4)	Sandy N	/ucky Mineral (S1)		Bedox Depre	ssion				Iron-Mangan	iese Mas	ses (F12) (LRR K, L, R)
	Sandy (leved Matrix (S4)							Piedmont Flo	oodplain	Soils (F19) (MLRA 149B)
	Sandy F	edox (S5)							Mesic Spodic	: (TA6) (N	ILRA 144A, 145, 149B)
	_ Strinne	d Matrix (S6)							Red Parent N	/laterial (F21)
Other (Explain in Remarks) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (if observed): 	Dark Su			00)					Very Shallow	Dark Su	rface (TF12)
dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (if observed): Type: None Hydric Soil Present? Yes No _									Other (Explai	in in Rem	narks)
strictive Layer (if observed): Type: None Depth (inches): marks:	ndicators	of hydrophytic veg	getation	and wetland hyd	rology	y must be	e present	, unless disturbe	d or problematic.		
Type: No	estrictive	Layer (if observed)	:								
Depth (inches):		Type:		None			Hydric S	Soil Present?		Yes	_ No
marks:		Depth (inches):			•		5				
	emarks:	<u> </u>					1				
	.marks.										

Vegetation Photos





Soil Photos



Photo of Sample Plot East



Photo of Sample Plot South Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t City/Coun	ty: Sprakers, Montg	omery County	Sampling D	ate: 2021-Aug-31				
Applicant/Owner: Si	unEast			State: NY	Sampling Poir	nt: W-JMP-03_PFO-1				
Investigator(s): Jerry	Investigator(s): Jerry Peake, Steve Spotts, Abi Light Section, Township, Range: NA									
Landform (hillslope, te	rrace, etc.):	Flat	Local relief	(concave, convex,	none): Concave	Slope (%): 1 to 3				
Subregion (LRR or MLR	RA): LRR	L	Lat:	42.8493105961	Long: -74.47434505	564 Datum: WGS84				
Soil Map Unit Name:	Angola silt lo	bam, AnB			NWI clas	sification:				
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 signific	antly disturbed?	Are "Normal C	Circumstances" preser	nt? Yes 🟒 No				
Are Vegetation,	Soil,	or Hydrology natura	lly problematic?	(If needed, ex	plain any answers in R	Remarks.)				

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-03							
Remarks: (Explain alternative procedures here or in a separate report)										
Covertype is PFO. Area is wetland, all th	ree wetland parameters are	present.								

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is required; cl	neck all that apply)	Secondary Indicators (minimum of two required)		
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	 Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) 	 Jurace Son Craces (B0) ✓ Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) ✓ Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations:				
Surface Water Present? Yes No _	✓ Depth (inches):	_		
Water Table Present? Yes No _	✓ Depth (inches):	Wetland Hydrology Present? Yes No		
Saturation Present? Yes No _	✓ Depth (inches):			
(includes capillary fringe)		-		
Describe Recorded Data (stream gauge, monitorin	g well, aerial photos, previous inspections), if	available:		

Remarks:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (primary and secondary indicators were present).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-03_PFO-1

Tree Stratum (Dist size) 20 ft	Absolute	Dominant	Indicator	Dominance Test works	heet:		
	% Cover	Species?	Status	Number of Dominant S	pecies That	5	(A)
1. Acer rubrum	50	Yes	FAC	Are OBL, FACW, or FAC	:		
2. <i>Fraxinus americana</i>	35	Yes	FACU	Total Number of Domin	hant Species	8	(B)
3. Tsuga canadensis	20	No	FACU	Across All Strata:			
4. Carya ovata	10	No	FACU	Percent of Dominant S Are OBL, FACW, or FAC	pecies That :	62.5	(A/B)
5.				Prevalence Index work	sheet:		
6.	·			Total % Cover	<u>of:</u>	<u>Multiply</u>	<u>By:</u>
7				OBL species	0	x 1 =	0
	115	= lotal Cov	er	FACW species	65	x 2 =	130
Sapling/Shrub Stratum (Plot size:15 ft)	45		FAC	FAC species	105	x 3 =	315
1. Acer rubrum	15	Yes	FAC	FACU species	120	x 4 =	480
2. Fraxinus americana	10	Yes	FACU	UPL species	0	x 5 =	0
3. Carpinus caroliniana		<u>No</u>	FAC	Column Totals	290	(A)	925 (B)
4. Isuga canadensis	5	No	FACU	Prevalence Ir	ndex = B/A =	3.2	
5	<u> </u>	·		Hydrophytic Vegetation	Indicators:		
6				1- Rapid Test for H	Hvdrophytic V	egetation	
7	·			✓ 2 - Dominance Te	st is >50%	-8	
	35	= Total Cov	er	3 - Prevalence Ind	lex is $\leq 3.0^1$		
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations	(Provide	supporting
1. <i>Onoclea sensibilis</i>	40	Yes	FACW	data in Remarks or on	a separate sh	leet)	0
2. Toxicodendron radicans	30	Yes	FAC	Problematic Hydr	ophytic Vege	tation ¹ (Ex	plain)
3. <i>Parthenocissus quinquefolia</i>	25	Yes	FACU	¹ Indicators of hydric so	il and wetlan	d hydrolog	gy must be
4. Impatiens capensis	25	Yes	FACW	present, unless disturb	ed or problei	matic	
5. <i>Solidago flexicaulis</i>	10	No	FACU	Definitions of Vegetation	on Strata:		
6. <i>Dryopteris marginalis</i>	5	No	FACU	Tree – Woody plants 3	in. (7.6 cm) oı	r more in o	diameter at
7. Symphyotrichum lateriflorum	5	No	FAC	breast height (DBH), re	gardless of h	eight.	
8				Sapling/shrub - Woody	plants less t	han 3 in. D	OBH and
9				greater than or equal t	o 3.28 ft (1 m) tall.	
10				Herb – All herbaceous	(non-woody)	plants, reg	gardless of
11				size, and woody plants	less than 3.2	8 ft tall.	
12.				Woody vines – All wood	dy vines great	ter than 3.	.28 ft in
	140	= Total Cov	er	height.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)		=		Hydrophytic Vegetatio	n Present?	/es 🟒 N	lo
1.							
2.							
3.	·	·					
4.	·	·					
	0	= Total Cov	er				
Remarks: (Include photo numbers here or on a separat	te sheet)						
A positive indication of hydrophytic vegetation was obs	served (>50)% of domin	ant species	indexed as OBL_FACW_o	r FAC)		
sector of the ophytic vegetation was ob.			Sinc Species				

SOIL

4 10YR 3/1 100	-4 10YR 3/1 100	44 10YR 3/1 100	4 10YR 3/1 100	iches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
16 10YR 3/1 95 7.5YR 4/6 5 C M Silt Loam 19 10YR 3/1 90 10YR 4/6 5 C M Silty Clay Loam 19 10YR 5/2 5 - - - - - 19 10YR 5/2 5 - - - - - 19 10YR 5/2 5 - - - - - - 19 10YR 5/2 5 - <	16 10YR 3/1 95 7.5YR 4/6 5 C M Silt Loam 19 10YR 3/1 90 10YR 4/6 5 C M Silty Clay Loam 19 10YR 5/2 5	16 10YR 3/1 95 7.SYR 4/6 5 C M Silt Loam 19 10YR 3/1 90 10YR 4/6 5 C M Silty Clay Loam .19 10YR 5/2 5	-16 10YR 3/1 95 7.5YR 4/6 5 C M Silt Loam -19 10YR 3/1 90 10YR 4/6 5 C M Silty Clay Loam -19 10YR 5/2 5	0 - 4	10YR 3/1	100					Silt Loam	
119 10YR 3/1 90 10YR 4/6 5 C M Silty Clay Loam 119 10YR 5/2 5 - - - - - 119 10YR 5/2 5 - - - - - - 119 10YR 5/2 5 -	-19 10YR 3/1 90 10YR 4/6 5 C M Silty Clay Loam -19 10YR 5/2 5	19 10YR 3/1 90 10YR 4/6 5 C M Silty Clay Loam 19 10YR 5/2 5	i-19 10YR 3/1 90 10YR 4/6 5 C M Silty Clay Loam i-19 10YR 5/2 5	- 16	10YR 3/1	95	7.5YR 4/6	5	С	M	Silt Loam	
19 10YR 5/2 5	19 10YR 5/2 5 19 10YR 5/2 5 19 10YR 5/2 5 19 10YR 5/2 5 10 10YR 5/2 5 10 10YR 5/2 5 11 10YR 5/2 10YR 5/2	19 10YR 5/2 5	IOYR 5/2 5 IOYR 5/2 1 IStack Iork Cark 1 1 Istack Ior 2 1 Ior 3 1 Ior 3 1 <t< td=""><td>5 - 19</td><td>10YR 3/1</td><td>90</td><td>10YR 4/6</td><td>5</td><td>С</td><td>M S</td><td>lty Clay Loam</td><td></td></t<>	5 - 19	10YR 3/1	90	10YR 4/6	5	С	M S	lty Clay Loam	
Image: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. Indicators: Indicators: Indicators: Indicators for Problematic Hydric Soils ² : Istosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Istic Epipedon (A2) Thin Dark Surface (S9) (LRR K, L) Istic Epipedon (A2) Thin Dark Surface (S9) (LRR K, L) ydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) ydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) peleted Below Dark Surface (A11) // Redox Dark Surface (F6) S cm Mucky Peat or Peat (S9) (LRR K, L) ick Dark Surface (A12) Depleted Matrix (F6) Thin Dark Surface (S9) (LRR K, L) andy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F12) (LRR K, L, R) andy Gleyed Matrix (S6) Red Parent Material (F21) Other (Explain in Remarks) artified KSurface (S7) (LRR R, MLRA 149B) Cost Present? Yes _/_ No	e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ?Location: PL = Pore Lining, M = Matrix. ic Soil Indicators: Indicators for Problematic Hydric Soils?: listos (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) listos (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) 2 com Muck (A10) (LRR K, L, R) listos (A3) Loamy Mucky Mineral (F1) (LRR K, L) S com Mucky Peat or Peat (S3) (LRR K, L) lydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Dark Surface (S3) (LRR K, L) peleted Below Dark Surface (A11) / Redox Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) hick Dark Surface (A12) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) andy Mucky Mineral (S1) Redox Dark Surface (F7) Inron-Manganese Masses (F12) (LRR K, L) andy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (F9) (MLRA 1449, 145, 149B) andy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (F12) andy Redox (S5) West or problematic. Yes No tripped Matrix (S6) Very Shallow Dark Surface (F12) Other (Explain in Remarks) cators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. <td>e:: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. ic: Soil Indicators: Indicators for Problematic Hydric Soils*: istic: Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) </td> <td>e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ²Location: PL = Pore Lining, M = Matrix. istic Epidedon (A2) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) istic Epidedon (A2) Thin Dark Surface (S9) (LR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MRA 149B) istic Epidedon (A2) Thin Dark Surface (S9) (LR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, NRA 149B) istic Epidedon (A2) Dainy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) iydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Dark Surface (S7) (LRR K, L, R) iphoto Surface (A11) Redox Depressions (F8) Dark Surface (S9) (LRR K, L) iphoto Matrix (S4) Redox Depressions (F8) Piedmont Floodplain Solis (F19) (MLRA 144A, 145, 149B) icators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Vers Shallow Dark Surface (T12) Trice Layer (if observed): Type: None Hydric Soil Present? Yes _ No</td> <td>5 - 19</td> <td>10YR 5/2</td> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	e:: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. ic: Soil Indicators: Indicators for Problematic Hydric Soils*: istic: Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B)	e: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. istic Epidedon (A2) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) istic Epidedon (A2) Thin Dark Surface (S9) (LR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MRA 149B) istic Epidedon (A2) Thin Dark Surface (S9) (LR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, NRA 149B) istic Epidedon (A2) Dainy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) iydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Dark Surface (S7) (LRR K, L, R) iphoto Surface (A11) Redox Depressions (F8) Dark Surface (S9) (LRR K, L) iphoto Matrix (S4) Redox Depressions (F8) Piedmont Floodplain Solis (F19) (MLRA 144A, 145, 149B) icators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Vers Shallow Dark Surface (T12) Trice Layer (if observed): Type: None Hydric Soil Present? Yes _ No	5 - 19	10YR 5/2	5						
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Type:NoneNo Depth (inches):	Type: None Hydric Soil Present? Yes _ No Depth (inches): arks:	Type: <u>None</u> Depth (inches): arks: Yes _/ No Present? Yes _/ No	Type: <u>None</u> Depth (inches): warks:	Deplete Fhick Da Gandy M Gandy C Gandy R Strippec Dark Su Joark Su	d Layers (A5) d Below Dark Surfa ark Surface (A12) Aucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) rface (S7) (LRR R, M of hydrophytic veg	ce (A11) L RA 149 etation a	Depleted Ma Redox Dark S Depleted Dar Redox Depre B)	rology	y must be	present, unless d	Polyvalue Thin Darl Iron-Man Piedmon Mesic Sp Red Pare Very Shal Other (Ex sturbed or problema	e Below Surface (S8) (LRR K, L) k Surface (S9) (LRR K, L) nganese Masses (F12) (LRR K, L, R) t Floodplain Soils (F19) (MLRA 149B odic (TA6) (MLRA 144A, 145, 149B) nt Material (F21) llow Dark Surface (TF12) cplain in Remarks) tic.
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Vegetation Photos





Soil Photos



Photo of Sample Plot North



Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mont	gomery County		Sampling Date:	2021-Aug-31
Applicant/Owner: S	unEast				State: NY		Sampling Point: V	V-JMP-03_UPL-1
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		Sec	tion, Township, Ra	nge: N	4	
Landform (hillslope, te	rrace, etc.):	Flat		Local relief	f (concave, convex,	none):	None	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.8493558234	Long:	-74.4742425939	Datum: WGS84
Soil Map Unit Name:	Angola silt lo	am, AnB					NWI classific	ation:
Are climatic/hydrologic	c conditions o	n the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Remar	·ks.)
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significant naturally p	tly disturbed? problematic?	Are "Normal C (If needed, exp	Circumst plain an	ances" present? y answers in Rema	Yes 🟒 No arks.)

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

Hydrophytic Vegetation Present?	Yes No 🟒		
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Wetland Hydrology Present?	Yes No 🟒	If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures her	e or in a separate report)	
Covertype is UPL. Area is upland, not all three	e wetland parameters are	e present.	

HYDROLOGY

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

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-03_UPL-1

Tree Stratum (Plot size: 20 ft)	Absolute	Dominant	Indicator	Dominance Test works	sheet:		
	% Cover	Species?	Status	Number of Dominant Species That		3	(A)
1. <i>Fraxinus americana</i>	50	Yes	FACU	Are OBL, FACW, or FAC	:		
2. Tsuga canadensis	45	Yes	FACU	Total Number of Domi	nant Species	7	(B)
3. <i>Carya ovata</i>	25	No	FACU	Across All Strata:			
4. Acer saccharum	20	No	FACU	Percent of Dominant S	pecies That	42.9	(A/B)
5.				Are OBL, FACW, OF FAC	 Ichaati		
6.				Tetal % Cover	sneet.	Multiply	D. #
7.					<u> </u>	<u>wiuiupiy</u>	<u>ру.</u> О
	140	= Total Cov	er		15	× 1 = _	20
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)		-		FACW species	25	× 2	105
1. Fraxinus americana	10	Yes	FACU	FAC species	172	x 5	105
2. Tsuga canadensis	10	Yes	FACU	FACU Species	1/3	x 4 = _	692
3. <i>Carpinus caroliniana</i>	10	Yes	FAC	OPL species	0	x 5 = _	0
4. Acer saccharum	5	No	FACU		223	(A) 	827 (B)
5.				Prevalence I	ndex = B/A =	3./	
6.				Hydrophytic Vegetatio	n Indicators:		
7.				1- Rapid Test for	Hydrophytic V	egetation/	
	35	= Total Cov	er	2 - Dominance Te	est is > 50%		
Herb Stratum (Plot size: 5 ft)		-		3 - Prevalence Inc	dex is $\leq 3.0^1$		
1. Carpinus caroliniana	25	Yes	FAC	4 - Morphologica	l Adaptations	¹ (Provide	supporting
2. Impatiens capensis	15	Yes	FACW	data in Remarks or on	a separate sr	ieet)	··· [- [-] -]
3. Polvstichum acrostichoides	8	No	FACU	Problematic Hyd	rophytic vege	lation' (Ex	(piain)
4.				indicators of hydric so	na and wettan	a nyarolo; matic	gy must be
5.				Definitions of Veretati	on Strata.	matic	
6.				Tree - Woody plants 3	in (7.6 cm) or	r more in i	diameter at
7.				breast height (DBH), re	egardless of h	eight.	alameter at
8				Sapling/shrub - Wood	v plants less t	han 3 in. [OBH and
9.				greater than or equal t	to 3.28 ft (1 m) tall.	
10				Herb – All herbaceous	(non-woody)	plants, reg	gardless of
11.				size, and woody plants	less than 3.2	8 ft tall.	
12				Woody vines - All woo	dy vines great	ter than 3	.28 ft in
12.	48	= Total Cov	er	height.			
Woody Vine Stratum (Plot size: 30 ft)	10	-		Hydrophytic Vegetatio	on Present?	res N	lo 🖌
1							
2							
3							
4							
T	0	= Total Cov	er				
				J			
Remarks: (Include photo numbers here or on a separat	e sheet.)						

SOIL

(inches)	Matrix		Redox	k Feat	ures		inserve of multators.)
	Color (moist)	%	Color (moist)	cat	Tvpe ¹	Loc ² Tex	ture Remarks
0 - 14	10YR 2/2	100		. <u></u>		Silty C	av Loam
14 - 4	10YR 4/2	80	5YR 4/6	10	C	M Clav	Loam
14 - 4			10YR 5/8	10		M Clay	Loam
<u></u>		·					
		·		·			· · ·
		·		· —			
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		·		·		·	
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		·		·			
		<u> </u>				An also al Cara de Cara in a cara	
/pe: C = C	Loncentration, D =	Depletio	on, RIVI = Reduced	i Mat	1X, IVIS =	Masked Sand Grains. 2	Location: PL = Pore Lining, M = Matrix.
aric Soli I	Indicators:		Daharahaa Da				Indicators for Problematic Hydric Solis»:
Histic Fr	i (AT)		Polyvalue Be	now S Inface	uriace (S	ο) (LKK K, WILKA 149B) Ρ. ΜΙΡΔ 1/00)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Hi	istic (A3)			v Min	(39) (LKK eral (E1)		Coast Prairie Redox (A16) (LRR K, L, R)
Hvdroge	en Sulfide (A4)		Loamy Gleve	ed Ma	trix (F2)		5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
_ Stratifie	d Layers (A5)		Depleted Ma	trix (I	-3)		Dark Surface (S7) (LRR K, L)
_ Deplete	d Below Dark Surf	ace (A11) Redox Dark	Surfa	ce (F6)		Polyvalue Below Surface (S8) (LRR K, L)
_ Thick Da	ark Surface (A12)		Depleted Da	rk Su	rface (F7)		Inon-Manganese Masses (E12) (I PR K P)
_ Sandy N	/lucky Mineral (S1)		Redox Depre	essior	ıs (F8)		Piedmont Floodplain Soils (F12) (LKK K, L, K)
_ Sandy G	Gleyed Matrix (S4)						Mesic Spodic (TA6) (MI RA 144A, 145, 149B)
_ Sandy R	Redox (S5)						Red Parent Material (F21)
_ Stripped	d Matrix (S6)						Very Shallow Dark Surface (TF12)
Dark Su	irface (S7) (LRR R, M	MLRA 14	9B)				Other (Explain in Remarks)
				rolog	/ must be	e present, unless disturb	ed or problematic.
_ Dark Su	of hydrophytic yea	etation	and wetland hvd				
_ Dark Su	of hydrophytic veg Laver (if observed)	getation	and wetland hyd	0.			
dicators	of hydrophytic veg Layer (if observed) Type:	getation :	and wetland hyd	0.		Hydric Soil Present?	Yes No /
<u>dicators</u>	of hydrophytic veg Layer (if observed) Type: Depth (inches):	getation :	and wetland hyd None			Hydric Soil Present?	Yes No _∠_
dicators	of hydrophytic veg L ayer (if observed) Type: Depth (inches):	getation :	and wetland hyd None			Hydric Soil Present?	Yes No
ndicators strictive l marks:	of hydrophytic veg L ayer (if observed) Type: Depth (inches):	getation :	and wetland hyd None			Hydric Soil Present?	Yes No _∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):	getation : 	and wetland hyd None			Hydric Soil Present?	Yes No _∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):	getation : 	and wetland hyd None			Hydric Soil Present?	Yes No _∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):	<u>getation</u>	and wetland hyd			Hydric Soil Present?	Yes No _∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):	getation : 	and wetland hyd None			Hydric Soil Present?	Yes No _∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):	getation : 	and wetland hyd None			Hydric Soil Present?	Yes No _∠
dicators strictive I	of hydrophytic veg Layer (if observed) Type: Depth (inches):		and wetland hyd None			Hydric Soil Present?	Yes No _∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):		and wetland hyd			Hydric Soil Present?	Yes No _∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):		and wetland hyd			Hydric Soil Present?	Yes No _∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):		and wetland hyd			Hydric Soil Present?	Yes No _∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):	retation :	and wetland hyd			Hydric Soil Present?	Yes No
estrictive I	of hydrophytic veg Layer (if observed) Type: Depth (inches):	retation	and wetland hyd None			Hydric Soil Present?	Yes No _∠
estrictive I	of hydrophytic veg Layer (if observed) Type: Depth (inches):		and wetland hyd None			Hydric Soil Present?	Yes No/_
estrictive I	of hydrophytic veg Layer (if observed) Type: Depth (inches):		and wetland hyd None			Hydric Soil Present?	Yes No/_
estrictive I	of hydrophytic veg Layer (if observed) Type: Depth (inches):		and wetland hyd None			Hydric Soil Present?	Yes No/_
idicators estrictive l marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):		and wetland hyd None			Hydric Soil Present?	Yes No _∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):	<u>getation</u>	and wetland hyd None			Hydric Soil Present?	Yes No ∠
dicators strictive I marks:	of hydrophytic veg Layer (if observed) Type: Depth (inches):	<u>getation</u>	and wetland hyd			Hydric Soil Present?	Yes No

Vegetation Photos





Soil Photos



Photo of Sample Plot East



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creek	Solar Projec	t	City/County:	Sprakers, Mor	itgomery County		Sampling Date:	2021-Sept-01
Applicant/Owner: Su	ınEast				State: NY		Sampling Point: \	N-JMP-04_PFO-2
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light	:	Se	ction, Township, Ra	nge: N	A	
Landform (hillslope, ter	race, etc.):	Foot slope		Local reli	ef (concave, convex	, none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLR	A): LRR	L		La	t: 42.8507638468	Long:	-74.4783543728	Datum: WGS84
Soil Map Unit Name:	llion silt loar	n, IIB					NWI classific	ation: None
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	significan	tly disturbed?	Are "Normal	Circums	tances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally	problematic?	(If needed, ex	plain an	y answers in Rema	arks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No						
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🯒 No				
Wetland Hydrology Present?	Yes 🟒 No	lf yes, optional Wetland Site ID:	W-JMP-04				
Remarks: (Explain alternative procedures here or in a separate report)							
Covertype is PFO. Area is wetland, all three wetland parameters are present.							

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is requir	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) 	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations:			
Surface Water Present? Yes	No 🟒 Depth (inches):		
Water Table Present? Yes	No 🟒 Depth (inches):	Wetland Hydrology Present? Yes No	
Saturation Present? Yes	No 🟒 Depth (inches):		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, mon	itoring well, aerial photos, previous inspections), if a	vailable:	
Sampling Point: W-JMP-04_PFO-2

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
	% Cover	Species?	Status	Number of Dominant S	Species That	5	(A)
1. <i>Carya ovata</i>	50	Yes	FACU	Are OBL, FACW, or FAC	:		
2. <u>Acer saccharum</u>	25	Yes	FACU	Total Number of Domi	nant Species	9	(B)
3. <i>Betula alleghaniensis</i>	25	Yes	FAC	Across All Strata:	n a si a a Tha st		
4. Carpinus caroliniana	10	No	FAC	Are OBL, FACW, or FAC	:	55.6	(A/B)
5				Prevalence Index work	sheet:		
6.				Total % Cover	of:	<u>Multiply</u>	<u>By:</u>
7				OBL species	0	x 1 =	0
	110	= lotal Cov	ver	FACW species	50	x 2 =	100
Sapling/Shrub Stratum (Plot size:15 ft)	45		54.6	FAC species	110	x 3 =	330
1. Carpinus caroliniana	- 15	Yes	FAC	FACU species	90	x 4 =	360
2. Fraxinus americana	5	Yes	FACU	UPL species	0	x 5 =	0
3				Column Totals	250	(A)	790 (B)
4.				Prevalence Ir	ndex = B/A =	3.2	
5				Hydrophytic Vegetation	n Indicators:		
6				1- Rapid Test for I	Hvdrophytic V	egetatior	ı
7				✓ 2 - Dominance Te	st is >50%	0	
	20	= Total Cov	ver	3 - Prevalence Inc	lex is $\leq 3.0^1$		
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations ¹	(Provide	supporting
1. <u>Onoclea sensibilis</u>	50	Yes	FACW	data in Remarks or on	a separate sh	eet)	
2. <u>Geum canadense</u>	20	Yes	FAC	Problematic Hydr	ophytic Vege	tation ¹ (E>	(plain)
3. <i>Collinsonia canadensis</i>	15	No	FAC	¹ Indicators of hydric so	il and wetlan	d hydrolo	gy must be
4. <i>Persicaria virginiana</i>	10	No	FAC	present, unless disturb	ed or probler	matic	
5. <i>Equisetum arvense</i>	5	No	FAC	Definitions of Vegetation	on Strata:		
6. <i>Parthenocissus quinquefolia</i>	5	No	FACU	Tree – Woody plants 3	in. (7.6 cm) or	more in	diameter at
7				breast height (DBH), re	gardless of h	eight.	
8				Sapling/shrub - Woody	/ plants less tl	han 3 in. I	OBH and
9				greater than or equal t	o 3.28 ft (1 m) tall.	
10				Herb – All herbaceous	(non-woody)	plants, re	gardless of
11				size, and woody plants	less than 3.2	8 ft tall.	
12				Woody vines – All wood	dy vines great	er than 3	.28 ft in
	105	= Total Cov	ver	neight.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)				Hydrophytic Vegetatio	n Present?	/es 🟒 N	lo
1. <i>Vitis riparia</i>	10	Yes	FAC				
2. Parthenocissus quinquefolia	5	Yes	FACU				
3.							
4.							
	15	= Total Cov	ver				
				_			

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).

SOIL

Depth	Matrix		Redox	(Feat	ures		-		- · ·
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>		Loc ²		xture	Remarks
0 - 7	10YR 2/1	95	10YR 4/6	5			Silty C	lay Loam	
7 - 11	10YR 2/2	80	2.5YR 4/6	10		M	Silty C	lay Loam	
7 - 11	10YR 4/1	10							
11 - 15	10YR 4/1	- <u>/5</u>	7.5YR 5/8	15	<u> </u>	M	Silt	y Clay	
11 - 15	10YR 2/1	10							
	·								
	·								
Type: C =	Concentration, D =	Depleti	ion, RM = Reduce	d Mati	rix, MS =	Masked	Sand Grains.	Location: PL = Por	e Lining, M = Matrix.
Hydric Soil	I Indicators:					· 0) // PF		Indicators for P	Problematic Hydric Soils ³ :
Histoso	DI (AT)		Polyvalue Be	elow S	urtace (S	oo) (LRR	K, MLKA 149B)	2 cm Muck	(A10) (LRR K, L, MLRA 149B)
HISUC E Black H	Epipedon (AZ) Histic (A3)		I nin Dark St	v Min	(59) (LKF loral (E1)	(K, IVILK / DD K	А 149В)	Coast Prairi	ie Redox (A16) (LRR K, L, R)
Hydros	zen Sulfide (A4)		Loamy Gleve	ed Ma	trix (F2)		L)	5 cm Mucky	y Peat or Peat (S3) (LRR K, L, R)
Stratifi	ed Layers (A5)		Depleted Ma	atrix (I	=3)			Dark Surfac	ce (S7) (LRR K, L)
Deplet	ed Below Dark Surfa	ace (A1	1) Redox Dark	Surfa	ce (F6)			Polyvalue B	Selow Surface (S8) (LRR K, L)
Thick D	Dark Surface (A12)		Depleted Da	ark Su	face (F7))		Inin Dark S	
Sandy	Mucky Mineral (S1)		Redox Depr	essior	ns (F8)			II OII-IVIAI Iga Piedmont E	Eloodalain Soils (F12) (LKK K, L, K)
Sandy	Gleyed Matrix (S4)							Mesic Spod	lic (TA6) (MI RA 144A 145 149B)
Sandy	Redox (S5)							Red Parent	Material (F21)
Strippe	ed Matrix (S6)							Verv Shallo	w Dark Surface (TF12)
Dark S	urface (S7) (LRR R, N	/LRA 14	49B)					Other (Expl	ain in Remarks)
³ Indicators	s of hydrophytic yea	etation	and wetland hyd	Irolog	v must h	e nreser	nt unless distur	Ded or problematic	-
Restrictive	Laver (if observed)		i una wetana nye	10108.	ymases		it, amess aistan		••
	Type:	•	None			Hydric	Soil Present?		Yes / No
	Depth (inches):		Hone	-		liyane	Son resent.		
Domarke:	Deptil (illelies).								·
A positive	indication of hydric	soil wa	is observed. The o	riterio	on for hy	dric soil	is met.		

Vegetation Photos





Soil Photos



Photo of Sample Plot North



Photo of Sample Plot East



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creek S	Solar Project		City/County:	Sprakers, M	lontgome	ery County		Sampling Date:	2021-Sept-01
Applicant/Owner: Sun	East					State: NY		Sampling Point: <u>V</u>	N-JMP-04_PFO-3
Investigator(s): Jerry Pe	eake, Steve S	potts, Abi Light			Section,	Township, Rar	nge: N/	4	
Landform (hillslope, terra	ace, etc.):	Depression		Local re	elief (con	cave, convex,	none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLRA)): LRR L				Lat: 42.8	35055	Long:	-74.477867	Datum: WGS84
Soil Map Unit Name:	Darien silt loa	am, DaB						NWI classific	ation: None
Are climatic/hydrologic c	onditions on	the site typical	for this time	of year?	Ye	es 🟒 No _	(If no	, explain in Remar	rks.)
Are Vegetation, So	oil, d	or Hydrology	significan	tly disturbed	? A	Are "Normal C	ircumst	ances" present?	Yes 🟒 No
Are Vegetation, So	oil,	or Hydrology	naturally	problematic?	? (If needed, exp	lain an	y answers in Rema	arks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No		
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🧹 No
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-04
Remarks: (Explain alternative procedures he	ere or in a separate report)	
Covertype is PFO. Area is wetland, all three	wetland parameters are p	resent.	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is re	quired; check all that apply)		Secondary Indicators (minimum of two required)
 ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (✓ Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Rc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) B7) Other (Explain in Remarks) B8) 	oots (C3) s (C6)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes _	✓ No Depth (inches):	1	_
Water Table Present? Yes _	✓ No Depth (inches):	10	Wetland Hydrology Present? Yes No
Saturation Present? Yes _	🖌 No Depth (inches):	0	
(includes capillary fringe)	-		-
Describe Recorded Data (stream gauge, r	nonitoring well, aerial photos, previous inspec	tions), if	available:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (primary and secondary indicators were present).

Sampling Point: W-JMP-04_PFO-3

Trop Stratum (Plot size: 20 ft)	Absolute	Dominant	Indicator	Dominance Test works	neet:		
	% Cover	Species?	Status	Number of Dominant S	pecies That	7	(A)
1. <i>Salix alba</i>	30	Yes	FACW	Are OBL, FACW, or FAC:			
2. <i>Fraxinus pennsylvanica</i>	10	Yes	FACW	Total Number of Domir Across All Strata:	ant Species	8	(B)
4.				 Percent of Dominant Sp Are OBL, FACW, or FAC: 	oecies That	87.5	(A/B)
5				Prevalence Index works	sheet:		<u> </u>
6				- Total % Cover	of:	Multiply	Bv:
7				- OBL species	50	x 1 =	 50
	40	= Total Cov	er	EACW species	140	x 2 =	280
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	35	x 3 =	105
1. Carpinus caroliniana	25	Yes	FAC		20	× 4 -	80
2. Lonicera morrowii	20	Yes	FACU	- FACO species	20	× 4 - 	
3.				- OPL species _	0	x 5 =	0
4.					245	(A)	515 (B)
5.				Prevalence In	dex = B/A =	2.1	
6.				Hydrophytic Vegetation	Indicators:		
7.		·		1- Rapid Test for H	lydrophytic V	egetatior/	ו
· · · · · · · · · · · · · · · · · · ·	45	= Total Cov	er	2 - Dominance Tes	st is >50%		
Horb Stratum (Plot size: 5 ft)		-	CI	3 - Prevalence Ind	ex is $\leq 3.0^1$		
1 Impatiens canonsis	60	Voc	FΔCW	4 - Morphological	Adaptations	¹ (Provide	supporting
2 Opoclos constituis		Voc	EACW/	- data in Remarks or on a	a separate sh	neet)	
2. Utbrum calicaria	40	Vec		Problematic Hydro	ophytic Vege	tation ¹ (Ex	xplain)
S. Lythum Sancana				- ¹ Indicators of hydric so	il and wetlan	d hydrolo	gy must be
	10	INO	OBL	present, unless disturb	ed or problei	matic	
5.				Definitions of Vegetatio	n Strata:		
6				Tree – Woody plants 3 i	n. (7.6 cm) or	r more in	diameter at
7				breast height (DBH), reg	gardless of h	eight.	
8				Sapling/shrub – Woody	plants less t	han 3 in. I	DBH and
9				greater than or equal to	5 3.28 ft (1 m) tall.	
10				Herb – All herbaceous (non-woody)	plants, re	gardless of
11				size, and woody plants	less than 3.2	8 ft tall.	20.6
12				woody vines – All wood	ly vines great	ter than 3	.28 TT IN
	150	= Total Cov	er	neight.			<u> </u>
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)		-		Hydrophytic Vegetation	n Present?	res 🖌 🏾	No 0/
1. <i>Vitis riparia</i>	10	Yes	FAC				
2.							
3.				-			
4.				-			
	10	= Total Cov	er	-			
		-		_}			

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00). A positive indication of hydrophytic vegetation was observed (Morphological Adaptations). Shallow Rooted plants, buttressed trees.

SOIL

Profile Des	cription: (Describe	to the de	epth needed to d	ocum	ent the i	indicator	or confirm the	absence of indicato	ors.)
Depth	Matrix		Redox	Feat	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Te	xture	Remarks
0 - 6	10YR 2/1	100					Silty C	lay Loam	
6 - 15	10YR 2/1	95	10YR 5/6	5	С	Μ	Clay	/ Loam	
				· —					
				· —					
				·					
				· —		<u> </u>			
¹ Type: C = C	Concentration, D =	Depletio	n, RM = Reduced	Matı	rix, MS =	Masked	Sand Grains.	² Location: PL = Pore	e Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for P	roblematic Hydric Soils³:
Histoso	I (A1)		Polyvalue Bel	ow S	urface (S	8) (LRR F	R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic E	pipedon (A2)		Thin Dark Su	rface	(S9) (LRR	R, MLRA	A 149B)	Coast Prairie	e Redox (A16) (LRR K, L, R)
Black H	istic (A3)		Loamy Mucky	/ Min	eral (F1)	(LRR K, L)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrog	en Sulfide (A4)		Loamy Gleye	d Ma	trix (F2)			Dark Surfac	e (S7) (LRR K, L)
Stratifie	d Layers (A5)	200 (111)	Depleted Mar	trix (F	-3) -2 (F6)			Polyvalue Be	elow Surface (S8) (LRR K, L)
Depiete	ark Surface (A12)		Depleted Dark	k Su	-e (FO) face (F7)	\ \		Thin Dark Su	urface (S9) (LRR K, L)
Sandy N	Aucky Mineral (S1)		Depieted Dai	k Jui	iace (F7)	,		Iron-Manga	nese Masses (F12) (LRR K, L, R)
Sandy (Cloved Matrix (S4)		Redox Depre	55101	15 (FO)			Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy C	Dodox (SE)							Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sanuy F	d Matrix (SC)							Red Parent	Material (F21)
Surppe								Very Shallov	v Dark Surface (TF12)
Dark Su	Ifface (S7) (LRR R, N	ILKA 14	9B)					Other (Expla	ain in Remarks)
³ Indicators	of hydrophytic veg	etation a	and wetland hydr	ology	y must be	e presen	t, unless distur	bed or problematic.	
Restrictive	Layer (if observed)	:							
	Type:		None			Hydric	Soil Present?		Yes 🟒 No
	Depth (inches):			-					
Remarks:									
A positive i	ndication of hydric	soil was	observed. The cr	iteric	on for hyd	dric soil i	s met.		

Hydrology Photos



Vegetation Photos





Soil Photos



Photo of Sample Plot North



Photo of Sample Plot East



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mo	ntgomery County		Sampling Date:	2021-Sept-01
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>N</u>	/-JMP-04_PUB-1
Investigator(s): Jerry	/ Peake, Steve	Spotts, Abi Light		S	ection, Township, Ra	ange: N/	Ą	
Landform (hillslope, te	errace, etc.):	Terrace		Local rel	ief (concave, convex	, none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): LRR	L		La	at: 42.851361	Long:	-74.479511	Datum: WGS84
Soil Map Unit Name:	llion silt loar	n, IIB					NWI classifica	ation: PUS
Are climatic/hydrologic	c conditions o	n the site typical i	for this time	of year?	Yes 🟒 No _	(If no	, explain in Remarl	ks.)
Are Vegetation,	Soil,	or Hydrology		tly disturbed?	Are "Normal	Circumst	tances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	_ naturally	problematic?	(If needed, ex	plain an	y answers in Rema	rks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No		
Hydric Soil Present?	Yes 🖌 No	Is the Sampled Area within a Wetland?	Yes 🯒 No
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-04
Remarks: (Explain alternative procedur	es here or in a separate repo	prt)	
Covertype is PUB. Area is wetland, all th	nree wetland parameters are	present.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum o	of one is required; check al	<u>ll that apply)</u>		Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Sparsely Vegetated Concav 	Wate Aqua Marl Hydr Oxidi Prese Rece Thin I Imagery (B7) Othe e Surface (B8)	er-Stained Leaves (B9) atic Fauna (B13) Deposits (B15) rogen Sulfide Odor (C1) ized Rhizospheres on Living ence of Reduced Iron (C4) nt Iron Reduction in Tilled S Muck Surface (C7) r (Explain in Remarks)	g Roots (C3) Soils (C6)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes 🟒 No	Depth (inches):	16	_
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	
(includes capillary fringe)				-
Describe Recorded Data (strea	m gauge, monitoring well,	aerial photos, previous ins	pections), if	available:

Remarks:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (primary and secondary indicators were present).

Sampling Point: W-JMP-04_PUB-1

Trace Christian (District) 20 ft)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
<u>iree stratum</u> (Piot size: <u>30 it</u>)	% Cover	Species?	Status	Number of Dominant S	pecies That	2	(A)
2.				Total Number of Domir	ant Species	2	(B)
3				Percent of Dominant Sp	pecies That	100	(A/B)
5.				Are OBL, FACW, or FAC:	- In		
6.				- Prevalence Index works	sneet:		_
7.				- <u>Iotal % Cover</u>	<u>of:</u>	Multiply	<u>By:</u>
	0	= Total Cov	er	- OBL species -	15	x1=	15
Sapling/Shrub Stratum (Plot size: 15 ft)		_		FACW species	0	x 2 =	0
1				FAC species	0	x 3 =	0
···				 FACU species 	0	x 4 =	0
2.				 UPL species 	0	x 5 =	0
3.				- Column Totals	15	(A)	15 (B)
4.				- Prevalence In	idex = B/A =	1	
5.				- Hydrophytic Vegetation	Indicators:		
6.				- 🖌 1- Rapid Test for H	-lydrophytic V	egetation	
7				- 2 - Dominance Tes	st is >50%	0	
	0	= Total Cov	er	. 3 - Prevalence Ind	$ex is < 3.0^{1}$		
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations ¹	Provide	supporting
1. <i>Typha latifolia</i>	10	Yes	OBL	– data in Remarks or on a	a separate sh	(i i e tiue i ieet)	sabber
2. Alisma subcordatum	5	Yes	OBL	Problematic Hvdr	ophytic Vege	tation ¹ (Ex	plain)
3				¹ Indicators of hydric so	il and wetlan	d hvdrolog	zv must be
4				present, unless disturb	ed or probler	matic	5)
5.				Definitions of Vegetation	on Strata:		
6.				Tree – Woody plants 3 i	in. (7.6 cm) or	r more in c	diameter at
7.				breast height (DBH), re	gardless of h	eight.	
8				Sapling/shrub - Woody	plants less t	han 3 in. D	OBH and
9				greater than or equal to	o 3.28 ft (1 m) tall.	
10				Herb – All herbaceous ((non-woody)	plants, reg	ardless of
11				size, and woody plants	less than 3.2	8 ft tall.	
12				Woody vines - All wood	dy vines great	ter than 3.	28 ft in
12				height.			
	15	_= lotal Cov	er	Hydronhytic Vegetatio	n Present?	/es / N	
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)						IC5 <u>v</u> IV	
1				_			
2				_			
3				_			
4				_			
	0	= Total Cov	er				
Pemarks: (Include photo numbers here or on a se	narato choot)						

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00). A positive indication of hydrophytic vegetation was observed (Rapid Test for Hydrophytic Vegetation).

SOIL

	Redox	Features		
nches) Color (moist) -	% Color (moist)	<u>%</u> Type¹	Loc ² Texture	Remarks
pe: C = Concentration, D = De	pletion, RM = Reduce	d Matrix, MS =	Masked Sand Grains. ²	Location: PL = Pore Lining, M = Matrix.
dric Soil Indicators:				Indicators for Problematic Hydric Soils ³ :
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, ML	Thin Dark Si Loamy Mucl Loamy Gley Depleted Mi e (A11) Redox Dark Depleted Da Redox Depr	urface (S9) (LRR ky Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) ark Surface (F7) essions (F8)	R, MLRA 149B) (LRR K, L)	 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) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
dicators of hydrophytic veget	ation and wetland hyd	drology must b	e present, unless disturb	ed or problematic.
strictive Layer (if observed):				
Туре:	None	_	Hydric Soil Present?	Yes No
Depth (inches):				
marks: a to inundation a clear soil pr	ofile was upobtainabl	a Saile ara ace	umod to bo bydric	

Hydrology Photos



Vegetation Photos



Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	:	City/County:	Sprakers, Mon	tgomery Coun	ity	Sampling Date:	2021-Sept-01
Applicant/Owner: S	unEast				State: N	Y	Sampling Point: W	-JMP-04_UPL-1
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		Se	ction, Townshi	p, Range: N	IA	
Landform (hillslope, te	rrace, etc.):	Levee		Local relie	ef (concave, coi	nvex, none)	Convex	Slope (%): 2 to 5
Subregion (LRR or MLR	RA): LRR	_		Lat	: 42.85146543	314 Long	-74.4793897861	Datum: WGS84
Soil Map Unit Name:	llion silt loar	n, IIB					NWI classificat	tion: None
Are climatic/hydrologic	conditions o	n the site typical	for this time	of year?	Yes 🟒 N	lo (If n	o, explain in Remark	:s.)
Are Vegetation 🟒,	Soil,	or Hydrology	significant	tly disturbed?	Are "Nori	mal Circum	stances" present?	Yes No 🟒
Are Vegetation,	Soil,	or Hydrology	naturally p	problematic?	(If neede	d, explain a	ny answers in Remar	·ks.)

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

Hydrophytic Vegetation Present?	Yes No 🟒									
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒							
Wetland Hydrology Present?	Yes No 🟒	lf yes, optional Wetland Site ID:								
Remarks: (Explain alternative procedures her	Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all three wetland parameters are present. Circumstances are not normal due to mowing of vegetation.										

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one	is required; check all t	hat apply)	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf 	Water-! Aquatio Marl Du Hydrog Oxidize Presen Recent Thin M gery (B7) Other (face (B8)	Stained Leaves (B9) : Fauna (B13) eposits (B15) en Sulfide Odor (C1) ed Rhizospheres on Living Roots (C3) ce of Reduced Iron (C4) Iron Reduction in Tilled Soils (C6) uck Surface (C7) Explain in Remarks)	 Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C6) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _ ∠ Yes No _ ∠ Yes No _ ∠	Depth (inches): Depth (inches): Depth (inches):	_ 	Yes No⁄	
Describe Recorded Data (stream gau	uge, monitoring well, ad	erial photos, previous inspections), if	observed.		

Sampling Point: W-JMP-04_UPL-1

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test works	sheet: Species That	0	(A)
1				Are OBL, FACW, or FAC	:		
2				Total Number of Domi Across All Strata:	inant Species	2	(B)
3.		·		Percent of Dominant S	Species That		
4		<u> </u>		Are OBL, FACW, or FAC	:	0	(A/B)
s		<u> </u>		Prevalence Index work	ksheet:		
o				Total % Cover	r of:	<u>Multiply</u>	<u>′ By:</u>
7		- Total Cau		OBL species	0	x 1 =	0
Carling (Church Startum (Dist size) 45 (t.)	0		er	FACW species	0	x 2 =	0
Sapling/Shrub Stratum (Plot size:15 ft)				FAC species	0	x 3 =	0
1		·		FACU species	75	x 4 =	300
2.		·		UPL species	75	x 5 =	375
3				Column Totals	150	(A)	675 (B)
4				Prevalence I	ndex = B/A =	4.5	
5				Hydronbytic Vegetatio	n Indicators:		
6				1- Rapid Test for	Hydrophytic V		n
7				2 - Dominance Te	r = 1000 st is $> 50%$	egetatio	
	0	= Total Cov	er	3 - Prevalence In	dev is < 3.01		
Herb Stratum (Plot size: <u>5 ft</u>)				J - Morphologica	l Adaptations	(Provide	supporting
1. Bromus inermis	65	Yes	UPL	- data in Remarks or on	a separate sh	(i roviac	supporting
2. <i>Vicia americana</i>	30	Yes	FACU	Problematic Hvd	rophytic Vege	tation ¹ (F	xplain)
3. <i>Galium mollugo</i>	20	No	FACU	¹ Indicators of hydric so	oil and wetlan	d hvdrolo	pgy must be
4. Trifolium pratense	20	No	FACU	present, unless distur	ped or problem	matic	8,
5. Asclepias syriaca	10	No	UPL	Definitions of Vegetati	on Strata:		
6. Arctium minus	5	No	FACU	Tree – Woody plants 3	in. (7.6 cm) or	r more in	diameter at
7.				breast height (DBH), re	egardless of h	eight.	
8.				Sapling/shrub - Wood	y plants less tl	han 3 in.	DBH and
9.				greater than or equal	to 3.28 ft (1 m) tall.	
10.				Herb – All herbaceous	(non-woody)	plants, re	gardless of
11.		·		size, and woody plants	s less than 3.2	8 ft tall.	
12		·		Woody vines – All woo	dy vines great	ter than 3	3.28 ft in
	150	= Total Cov	er	height.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)		-		Hydrophytic Vegetatio	on Present?	/es	No 🟒
1.							
2.		·		-			
3.				-			
4		·		-			
···	0	= Total Cov	er	-			
Demarka (Include abete averabere bare ex are a	arata chast'	-					
Remarks: (include photo numbers here or on a sep	barate sneet.)		inont ere -!	as indexed as FAC as all	rior		
No positive indication of hydrophytic vegetation wa	as observed (≥	50% OT 00M	inant specie	es indexed as FAC- or dr	ier).		

SOIL

Color (me 12 10YR 3/	% % '2 100	Color (moist)	<u>%</u> Type'	Loc ²	Texture Silt Loam	Remarks
- 12 10YR 3.	100				Silt Loam	
e: C = Concentratio	n. D = Depletic	on. RM = Reduced	Matrix. MS	= Masked Sand	Grains. ² Locat	ion: PL = Pore Lining. M = Matrix.
ic Soil Indicators	, pietre	,			Inc	dicators for Problematic Hydric Soils ³
listosol (A1)		Polyvalue Bel	ow Surface	(S8) (LRR R. ML	RA 149B)	
listic Epipedon (A2)		Thin Dark Sur	face (S9) (L l	RR R, MLRA 149	B)	_ 2 CHI IVIUCK (ATU) (LKK K, L, MLKA 149B)
lack Histic (A3)		Loamy Mucky	Mineral (F	1) (LRR K, L)	·	5 cm Mucky Peat or Peat (S3) (I PP K P)
lydrogen Sulfide (A	4)	Loamy Gleyed	l Matrix (F2)		Dark Surface (S7) (I RR K 1)
tratified Layers (A5)	Depleted Mat	rix (F3)			Polyvalue Below Surface (S8) (LRR K. L)
epleted Below Dar	k Surface (A11) Redox Dark S	urface (F6)			Thin Dark Surface (S9) (LRR K, L)
hick Dark Surface (A12)	Depleted Darl	k Surface (F	-7)		_ Iron-Manganese Masses (F12) (LRR K, L, R)
andy Mucky Minera	al (S1)	Redox Depres	sions (F8)			_ Piedmont Floodplain Soils (F19) (MLRA 149B
andy Gleyed Matrix	(54)					_ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
andy Redox (S5)						_ Red Parent Material (F21)
tripped Matrix (S6)						_Very Shallow Dark Surface (TF12)
Jark Surface (S7) (Lr	KK K, WILKA 14	90)				_Other (Explain in Remarks)
cators of hydrophy	tic vegetation	and wetland hydro	ology must	be present, unl	ess disturbed or	problematic.
rictive Layer (if obse	erved):					
Type:		None		Hydric Soil P	resent?	Yes No 🟒
Depth (inch	es):					
arks: ositive indication o	f hydric soils v	vas observed. Refu	usal due to	coarse fragmen	ts. pond emban	kment.

Vegetation Photos





Soil Photos



Photo of Sample Plot East



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mo	ntgomery County		Sampling Date: 20	021-Sept-01
Applicant/Owner: S	unEast				State: NY		Sampling Point: W-JI	MP-04_UPL-2
Investigator(s): Jerry	/ Peake, Steve	Spotts, Abi Light		S	ection, Township, Ra	nge: N/	4	
Landform (hillslope, te	errace, etc.):	Foot slope		Local rel	ief (concave, convex,	none):	None	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): LRR	L		La	at: 42.850769	Long:	-74.478568	Datum: WGS84
Soil Map Unit Name:	llion silt loai	m, IIB					NWI classification	on: None
Are climatic/hydrologic	c conditions o	n the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Remarks.)
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significan naturally	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst plain an	ances" present? v answers in Remark:	Yes 🟒 No s.)
0		, 0, =	,		, , ,	•		,

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

Hydrophytic Vegetation Present?	Yes No 🟒								
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No 🟒	If yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of o	ne is required; check all t	<u>hat apply)</u>	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave S 	Water Aquatic Marl D Hydrog Oxidize Presen Recent Thin M nagery (B7) Other (urface (B8)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 				
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _ _/ Yes No _ _/ Yes No _ _/	Depth (inches): Depth (inches): Depth (inches):	 Wetland Hydrology Present? Yes No			
Describe Recorded Data (stream a stream	gauge, monitoring well, a	erial photos, previous inspections), indication of wetland hydrology wa	s observed.			

Sampling Point: W-JMP-04_UPL-2

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant Species?	Indicator	Dominance Test wor	ksheet:		
<u></u>	% Cover	2 0 0 p c c. co.	Status	Number of Dominan	3	(A)	
1. <i>Fraxinus americana</i>	60	Yes	FACU	Total Number of Dor	AC:		
2. <u>Tilia americana</u>	30	Yes	FACU	Across All Strata	filliant species	7	(B)
3. <u>Acer saccharum</u>	25	Yes	FACU	Percent of Dominant	Species That		
4. <u>Ulmus americana</u>	10	No	FACW	Are OBL, FACW, or FAC:		42.9	(A/B)
5				Prevalence Index wo	rksheet:		
b				Total % Cov	<u>er of:</u>	<u>Multiply</u>	By:
7				OBL species	0	x 1 =	0
	125	= Total Cover		FACW species	10	x 2 =	20
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)	N.	54.6	FAC species	80	x 3 =	240
1. Carpinus caroliniana	20	Yes	FAC	FACU species	283	x 4 =	1132
2. Fraxinus americana	10	Yes	FACU	UPL species	0	x 5 =	0
3. <u>Rhamnus cathartica</u>	5	No	FAC	Column Totals	373	(A)	1392 (B)
4. <i>Hamamelis virginiana</i>	5	No	FACU	Prevalence	Index = B/A =	3.7	
5				Hydrophytic Vegetati	on Indicators:		
6				1- Rapid Test fo	r Hydrophytic V	/egetation	1
7				2 - Dominance	Test is > 50%	-8	
	40	= Total Cover		3 - Prevalence I	ndex is $\leq 3.0^1$		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphologic	al Adaptations	¹ (Provide	supporting
1. <i>Carex pedunculata</i>	20	Yes	FAC	data in Remarks or o	n a separate sh	neet)	
2. <i>Geum canadense</i>	15	Yes	FAC	Problematic Hy	drophytic Vege	tation ¹ (Ex	(plain)
		Percent cover		¹ Indicators of hydric	soil and wetlan	d hydrolo	gy must be
3. Fraxinus americana	153	cannot be greater	FACU	present, unless distu	rbed or problei	matic	
		than a previous		Definitions of Vegeta	tion Strata:		
		species		Tree – Woody plants	3 in. (7.6 cm) oi	r more in o	diameter at
4. Persicaria virginiana	10	No	FAC	breast height (DBH),	regardless of h	eight.	
5. Rhamnus cathartica	10	No	FAC	Sapling/shrub - Woo	dy plants less t	han 3 in. [OBH and
6				greater than or equa	l to 3.28 ft (1 m) tall.	
7				Herb – All herbaceou	ıs (non-woody)	plants, reį	gardless of
8				size, and woody plan	ts less than 3.2	8 ft tall.	
9				Woody vines – All wo	ody vines great	ter than 3	.28 ft in
10				height.			
11				Hydrophytic Vegetat	tion Present?	/es N	lo 🖌
12				.			
	208	= Total Cover					
Woody Vine Stratum (Plot size: <u>30 ft</u>)							
1							
2							
3							
4							
	0	- Total Cover					

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

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC- or drier).

SOIL

Depth	ription: (Describe) Matrix	to the d	epth needed to d Redox	ocun Feat	ures	indicato	r or confirm the a	ibsence of inc	dicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	e	Remarks
0 - 14	10YR 3/2	100					Silt Loa	m	
14 - 16	10YR 4/2	95	10YR 4/6	5	С	М	Clay Loa	im	
		·					y		
		·							
		·							
		·		-					
		·		-			-		
		·		-			-		
		·		-					
		·		-					
		·		-					
		·		-					_
Type: $C = C$	oncentration D =	Depletic	n. RM = Reduced	Mat	rix. MS =	Masked	Sand Grains 2	ocation: PI =	Pore Lining, M = Matrix
-Jydric Soil	ndicators:		,		.,			Indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	ow S	urface (S	58) (LRR	R, MLRA 149B)	2 cm M	
Histic Ep	bipedon (A2)		Thin Dark Su	rface	(S9) (LRF	R, MLR	A 149B)	2 CITI IVI	ALCK (ATO) (LRK N, L, MLKA 149D)
Black Hi	stic (A3)		Loamy Muck	/ Mir	eral (F1)	(LRR K,	L)	5 cm M	ucky Peat or Peat (S3) (I RR K R)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Ma	trix (F2)			Dark Si	ucky - cut of - cut (35) (ERK R, E, R)
Stratifie	d Layers (A5)		Depleted Ma	trix (-3)			Polyval	ue Below Surface (S8) (LRR K, L)
Deplete	d Below Dark Surfa	ace (A11) Redox Dark S	urfa	ce (F6)			Thin Da	ark Surface (S9) (LRR K, L)
Thick Da	ark Surface (A12)		Depleted Dar	'k Su	face (F7))		Iron-Ma	anganese Masses (F12) (LRR K, L, R)
Sanuy iv	lucky Mineral (ST)		Redox Depre	SSIO	IS (F8)			Piedmo	ont Floodplain Soils (F19) (MLRA 149B)
Sanuy G	adox (SE)							Mesic S	5podic (TA6) (MLRA 144A, 145, 149B)
Strinner	Matrix (S6)							Red Pa	rent Material (F21)
Dark Su	rface (S7) (I RR R M	11 RA 14	9B)					Very Sh	allow Dark Surface (TF12)
Durk Su			55)					Other (Explain in Remarks)
Indicators	of hydrophytic veg	etation	and wetland hydr	olog	y must b	e preser	nt, unless disturbe	ed or problen	natic.
Restrictive I	_ayer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes No 🟒
	Depth (inches):								
						nyune s			

Vegetation Photos





Soil Photos



Photo of Sample Plot South



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC





WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Solar Project		City/County:	Sprakers, Mon	tgomery County		Sampling Date:	2021-Sept-01	
nEast				State: NY		Sampling Point: \	W-JMP-04_UPL-3	
Peake, Steve S	potts, Abi Light		Se	ction, Township, Ra	nge: N	٩		
race, etc.):	Hillslope		Local relie	f (concave, convex,	none):	None	Slope (%): 5	5 to 10
A): LRR L			Lat	42.8504944397	Long:	-74.4779489505	Datum: WG	S84
Darien silt loa	am, DaB					NWI classific	ation: None	
conditions on	the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	o, explain in Remai	rks.)	
Soil, o Soil, o	or Hydrology or Hydrology	significant naturally	tly disturbed? problematic?	Are "Normal C (If needed, ex	ircumst blain an	tances" present? y answers in Rema	Yes 🟒 No arks.)	
	Solar Project nEast Peake, Steve S race, etc.): A): LRR L Darien silt loa conditions on Soil, G Soil, G	Solar Project nEast Peake, Steve Spotts, Abi Light race, etc.): Hillslope A): LRR L Darien silt loam, DaB conditions on the site typical Soil or Hydrology Soil or Hydrology	Solar Project City/County: nEast	Solar Project City/County: Sprakers, Mon nEast Peake, Steve Spotts, Abi Light See Prace, etc.): Hillslope Local relie A): LRR L Lat Darien silt loam, DaB conditions on the site typical for this time of year? Soil	Solar Project City/County: Sprakers, Montgomery County nEast State: NY Peake, Steve Spotts, Abi Light Section, Township, Ra race, etc.): Hillslope Local relief (concave, convex, A): LRR L Lat: 42.8504944397 Darien silt loam, DaB conditions on the site typical for this time of year? Yes ∠ No Soil, or Hydrology significantly disturbed? Are "Normal C Soil, or Hydrology naturally problematic? (If needed, explanation)	Solar Project City/County: Sprakers, Montgomery County nEast State: NY Peake, Steve Spotts, Abi Light Section, Township, Range: N/ race, etc.): Hillslope Local relief (concave, convex, none): A): LRR L Lat: 42.8504944397 Long: Darien silt loam, DaB conditions on the site typical for this time of year? Yes _✓ No (If not Soil, or Hydrology significantly disturbed? Are "Normal Circumst" Soil, or Hydrology naturally problematic? (If needed, explain an other site)	Solar Project City/County: Sprakers, Montgomery County Sampling Date: nEast State: NY Sampling Point: Y Peake, Steve Spotts, Abi Light Section, Township, Range: NA race, etc.): Hillslope Local relief (concave, convex, none): None A): LRR L Lat: 42.8504944397 Long: -74.4779489505 Darien silt loam, DaB NWI classific conditions on the site typical for this time of year? Yes _< No (If no, explain in Rema	Solar Project City/County: Sprakers, Montgomery County Sampling Date: 2021-Sept-01 nEast State: NY Sampling Point: W-JMP-04_UPL-3 Peake, Steve Spotts, Abi Light Section, Township, Range: NA race, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): A): LRR L Lat: 42.8504944397 Long: -74.4779489505 Datum: WG: Darien silt loam, DaB NWI classification: None conditions on the site typical for this time of year? Yes _ No (If no, explain in Remarks.) Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes _ No Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒							
Wetland Hydrology Present?	Yes No _	If yes, optional Wetland Site ID:								
Remarks: (Explain alternative procedures here or in a separate report)										
Covertype is UPL. Area is upland, not all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of one	is required; check all th	Secondary Indicators (minimum of two required)				
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf 	Water-St Aquatic Marl Dep Hydroge Oxidized Presence Recent li Thin Mu gery (B7) Other (E face (B8)	tained Leaves (B9) Fauna (B13) posits (B15) en Sulfide Odor (C1) d Rhizospheres on Living Roots (C3) e of Reduced Iron (C4) ron Reduction in Tilled Soils (C6) ck Surface (C7) xplain in Remarks)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 			
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _ / Yes No _ / Yes No _ /	Depth (inches): Depth (inches): Depth (inches):	Wetland Hydrology Present?	Yes No _		
Describe Recorded Data (stream gau	uge, monitoring well, aer	rial photos, previous inspections), if	available:			
Remarks: The criterion for wetland hydrology	is not met. No positive ir	ndication of wetland hydrology was	observed.			

Sampling Point: W-JMP-04_UPL-3

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test works	heet:				
	% Cover	6 Cover Species? Status		Number of Dominant S	5	(A)			
1. <i>Fraxinus americana</i>	25	Yes	FACU	Are OBL, FACW, or FAC:					
2. <i>Rhamnus cathartica</i>	15	Yes	FAC	Iotal Number of Dominant Species		7	(B)		
3. <i>Carpinus caroliniana</i>	15	Yes	FAC	Across Air Strata.					
4. <i>Carya ovata</i>	10	No	FACU	Are OBL, FACW, or FAC:		4 (A/B)			
5				Prevalence Index worksheet:					
o				Total % Cover of: Multiply By:			<u>' By:</u>		
7		- Total Cau		OBL species	0	x 1 =	0		
Couling (Church Structures (Distrained AF ft)	65		er	FACW species	60	x 2 =	120		
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15 it</u>)	40	Vee		FAC species	90	x 3 =	270		
	40	Yes	FACW	- FACU species	95	x 4 =	380		
2. Carpinus caroliniana	25	Yes	FAC	- UPL species	10	x 5 =	50		
3. Rhamnus cathartica		No	FAC	Column Totals	255	(A)	820 (B)		
4. Lonicera morrowii	15	No	FACU	Prevalence Ir	ndex = B/A =	3.2			
5. Rhus glabra	10	No	UPL	Hydrophytic Vegetation Indicators:					
6. <u>Acer saccharum</u>	5	No	FACU	1- Rapid Test for I	Hydrophytic V	/egetatio	า		
7				2 - Dominance Te	st is >50%	-8			
110 = Total Cover		3 - Prevalence Index is $\leq 3.0^1$							
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations	¹ (Provide	supporting		
1. Solidago canadensis	25	Yes	FACU	- data in Remarks or on	a separate sh	neet)			
2. Symphyotrichum lanceolatum	20	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)					
3. <i>Tussilago farfara</i>	15	No	FACU	¹ Indicators of hydric soil and wetland hydrology must be					
4. Persicaria virginiana	10	No	FAC	present, unless disturbed or problematic					
5. <i>Geum canadense</i>	5	No	FAC	Definitions of Vegetation Strata:					
6. <i>Toxicodendron radicans</i>	5	No	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at					
7				breast height (DBH), regardless of height.					
8.				Sapling/shrub – Woody plants less than 3 in. DBH and					
9.				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.					
12.				Woody vines – All wood	dy vines great	ter than 3	8.28 ft in		
	80	= Total Cov	er	height.					
Woody Vine Stratum (Plot size: 30 ft)		Hydrophytic Vegetatio	n Present?	res 🖌 I	No				
1.									
2.				-					
3				-					
۵. ۸				-					
···	0	= Total Cov	er	-					
			-						
Remarks: (Include photo numbers here or on a sepa	arate sheet.)				-				
A positive indication of hydrophytic vegetation was	observed (>50)% of domin	ant species	indexed as OBL, FACW, c	or FAC).				
Depth	Matrix		Redox	Feat	tures				
--------------------------	------------------------------	------------	--------------------------------	-----------------	-------------------	--------------------	----------------------------	------------------------------	--
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Text	ture	Remarks
0 - 12	10YR 3/2	100					Silty Clay Loam		
		·		· —					
				·					
		. <u> </u>		· —					
				_					
				· —					
				· —					
		. <u> </u>							
/pe: C = (/dric Soil	Concentration, D = I	Depletic	on, RM = Reduced	Mat	rix, MS =	Masked S	and Grains. ² L	ocation: PL = Pore	e Lining, M = Matrix.
_ Histoso	l (A1)		Polyvalue Bel	ow S	urface (S	58) (LRR R,	MLRA 149B)	2 cm Muck (A10) (LRR K. I., MI RA 149R)
Histic E	pipedon (A2)		Thin Dark Su	rface	(S9) (LRR	R, MLRA	149B)	Coast Prairie	e Redox (A16) (LRR K, L, R)
_ Black H	istic (A3)		Loamy Mucky	/ Mir	eral (F1)	(LRR K, L)		5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
_ Hydrog	en Sulfide (A4)		Loamy Gleye	d Ma triv (I	trix (F2)			Dark Surface	e (S7) (LRR K, L)
_ Stratine Deplete	ed Below Dark Surfa	ace (A11	Depleted Mar) Redox Dark S	urfa	-5) ce (F6)			Polyvalue Be	elow Surface (S8) (LRR K, L)
Thick D	ark Surface (A12)		Depleted Dar	'k Su	rface (F7))		Thin Dark Su	urface (S9) (LRR K, L)
Sandy N	Aucky Mineral (S1)		Redox Depre	ssior	ns (F8)			Iron-Manga	nese Masses (F12) (LRR K, L, R)
 Sandv (Gleved Matrix (S4)							Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy F	Redox (S5)							Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Strippe	d Matrix (S6)							Red Parent I	Material (F21)
_ Dark Su	irface (S7) (LRR R, N	ILRA 149	9B)					Very Shallov Other (Expla	v Dark Surface (TF12) ain in Remarks)
ndicators	of hydrophytic veg	etation	and wetland hydr	olog	y must be	e present,	unless disturbe	d or problematic.	
estrictive	Layer (if observed):								
	Туре:		None	-		Hydric S	oil Present?		Yes No 🟒
	Depth (inches):								
efusal due	e to coarse fragmer	nts.							





Soil Photos



Photo of Sample Plot West



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creek Solar Project	ct City/County:	Sprakers, Montgomery County	Sampling Date: 20	21-Sept-01
Applicant/Owner: SunEast		State: NY	Sampling Point: W-JN	/IP-05_PFO-2
Investigator(s):	e Spotts, Abi Light	Section, Township, Rar	nge: NA	
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): Concave	Slope (%): 1 to 3
Subregion (LRR or MLRA):	L	Lat: 42.849455	Long: -74.47728	Datum: WGS84
Soil Map Unit Name: Darien silt le	oam,DaB		NWI classificatio	n: None
Are climatic/hydrologic conditions o	on the site typical for this time o	of year? Yes 🟒 No	(If no, explain in Remarks.)	
Are Vegetation, Soil,	or Hydrology significant	ly disturbed? Are "Normal C	ircumstances" present?	Yes 🟒 No
Are Vegetation, Soil,	or Hydrology naturally p	problematic? (If needed, exp	olain any answers in Remarks	.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🯒 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-05							
Remarks: (Explain alternative procedures here or in a separate report)										
Covertype is PFO. Area is wetland, all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of o	one is required; check all t	that apply)	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial In Sparsely Vegetated Concave S 	Water- Aquati Marl D Hydrog Oxidizi Preser Recent Thin M nagery (B7) Other surface (B8)	 Surface soli Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 			
Field Observations:					
Surface Water Present?	Yes No 🟒	Depth (inches):	_		
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No		
Saturation Present?	Yes No 🟒	Depth (inches):			
(includes capillary fringe)					
Describe Recorded Data (stream Remarks:	gauge, monitoring well, a	erial photos, previous inspections), if	available:		

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-05_PFO-2

Match adding (Not size:	Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test works	neet:		
1. Acer saccharum 40 Yes FACU Are OBL, FACW, or FAC:		% Cover	Species?	Status	Number of Dominant S	pecies That	4	(A)
2. Carya ovata 15 Yes FACU Total Number of Dominant Species 9 (B) 3. Tsuga canadensis 15 Yes FACU Across All Strata: Percent of Dominant Species That 44.4 (A/B) 4. Fraxinus americana 10 No FACU Across All Strata: Percent of Dominant Species That 44.4 (A/B) 5. Prevalence Index worksheet: Multiply By: 0BL species 0 x1 = 0 5. 80 = Total Cover FACU Prevalence Index worksheet: Multiply By: 0BL species 0 x1 = 0 1. Acer spaccharum 15 Yes FACU Prevalence Index = BAA: 3 105 2. Tsuga canadensis 5 Yes FACU Prevalence Index = BAA: 3 105 3. No S4 400 Yes FACU 7. 8. .	1. Acer saccharum	40	Yes	FACU	Are OBL, FACW, or FAC			
3.Tsuga canadensis15YesFACUAcross Al Strata:4.Faxinus americana10NoFACUPercent of Dominant Species That Are OBL, FACW, or FAC:44.4(A/B)5	2. <i>Carya ovata</i>	15	Yes	FACU	Total Number of Domir	nant Species	9	(B)
4. Fraxinus americana 10 No FACU Percention Dominant Species Inat 44.4 (A/B) 5.	3. <i>Tsuga canadensis</i>	15	Yes	FACU	Across All Strata:	·		
5. Ale OBL, FACW, GLPAL. 6. Boll, FACW, GLPAL. 7. Boll, FACW, GLPAL. 7. Boll, FACW, GLPAL. 7. Boll, FACW, GLPAL. 8.0 = Total Cover FACU Species O 1. Acer saccharum 15 1. Acer saccharum 15 2. Tsuga canadensis 5 3. S 4. Septies 5. Yes 6. Column Totals 7. Column Totals 2.0 = Total Cover 4. Septies 7. Column Totals 2.0 = Total Cover 4. Septies 2.0 = Total Cover 4. Mpdrophytic Vegetation Indicators: 1. Prevalence Index is ≤ 3.01 4. Amphicarpase bracteata 2.5 Yes 5. Problematic Hydrophytic Vegetation '(Explain) 1. Drocheta sensibilis 4. Impatiens capensis 2.5 Yes 5. FACCW	4. <i>Fraxinus americana</i>	10	No	FACU	Percent of Dominant S	pecies That	44.4	(A/B)
6. Testal Cover Nultiply By: Sapling/Shrub Stratum (Plot size: _15 ft_) 15 Yes FACU 1. Acer saccharum 15 Yes FACU 2. Tsuga canadensis 5 Yes FACU 3. 5 Yes FACU 4.	5				Browslonce Index works	-hoot:		
Total SociesOx1 =OSapling/Shrub Stratum (Plot size: 15 ft.)80= Total CoverFACU species 90 x1 =0I. Acer saccharum15YesFACUFACU species 90 x2 = 180 R. Acer saccharum15YesFACUFACU species 35 x3 = 105 R. Acer saccharum5YesFACUFACU species 0 x5 = 0 R. Acer saccharum5YesFACUFACU species 0 x5 = 0 R. Acer saccharum5YesFACUFACU species 0 x5 = 0 R. Acer saccharum20= Total Cover	6				Total % Cover	of	Multiply	Dire
80 = Total Cover FACW species 0 × 1 = 0 1. Acer saccharum 15 Yes FACU FACU species 90 × 2 = 105 2. Tsuga canadensis 5 Yes FACU FACU species 90 × 4 = 400 2. Tsuga canadensis 5 Yes FACU FACU species 100 × 4 = 400 2. Tsuga canadensis 5 Yes FACU FACU FACU species 0 × 5 = 0 3.	7.				OBL species	0		<u></u>
Sapling/Shrub Stratum (Plot size: _15 ft_) 15 Yes FACU 1. Acer saccharum 15 Yes FACU 2. Tsuga canadensis 5 Yes FACU 3.		80	= Total Cov	er		00	× 2 -	190
1.Acer saccharum15YesFACUFACUFACU UP: species33 $X3 - 103$ 2. <i>Tsuga canadensis</i> 5YesFACUUP: species0 $x 4 = 400$ 3	Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)		_		FACW species	90	×2- ×2-	100
2. Tsuga canadensis 5 Yes FACU FACU PACU Species 100 $x 4 = 400$ 3. 0 $x 5 = 0$ 0 $x 5 = 0$ 4. 0 Yes FACU UPL species 0 $x 5 = 0$ 5. 0 Column Totals 225 (A) 685 (B) 7. 1 Appropriate Total Cover 1 Rapid Test for Hydrophytic Vegetation 7. 20 = Total Cover 1 Rapid Test for Hydrophytic Vegetations' (Provide supporting data in Remarks or on a separate sheet) 1. Onoclea sensibilis 40 Yes FACW 2. Amphicarpaea bracteata 25 Yes FACW 3. Dryopteris carthusiana 25 Yes FACW 4. Impatiens capensis 25 Yes FACW 5. - - - Problematic Hydrophytic Vegetation '(Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic - 5. - - - - - 6. - <t< td=""><td>1. Acer saccharum</td><td>15</td><td>Yes</td><td>FACU</td><td>FAC species</td><td>35</td><td>x 5</td><td>105</td></t<>	1. Acer saccharum	15	Yes	FACU	FAC species	35	x 5	105
3.	2. Tsuga canadensis	5	Yes	FACU	ACU species	100	x 4 =	400
4.	3.				Column Totala	0	x 5 =	
5.	4.					225	(A) _	685 (B)
6.	5.					dex = B/A =	<u></u>	
7.	6.				Hydrophytic Vegetation	Indicators:		
20 = Total Cover 21 Onoclea sensibilis 22 Amphicarpaea bracteata 30 Dryopteris carthusiana 25 Yes 25 Yes FACW Nophicarpaea bracteata 25 25 Yes FACW 10 No FAC 7.	7.				1- Rapid Test for H	lydrophytic V	egetation/	
Herb Stratum (Plot size: _5ft_)		20	= Total Cov	er	2 - Dominance Te	st is > 50%		
1. Onoclea sensibilis 40 Yes FACW 2. Amphicarpaea bracteata 25 Yes FAC 3. Dryopteris carthusiana 25 Yes FACW 4. Impatiens capensis 25 Yes FACW 5. Persicaria virginiana 10 No FAC 7. 10 No FAC 9. 10 No FAC 10. No FAC Definitions of Vegetation Strata: 7. 10. 10. Sapling/shrub - Woody plants 1 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 3. 10. 10. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. 10. 11. 125 = Total Cover Herb - All herbaceous (non-woody) plants, regardless of size, and woody vines greater than 3.28 ft in height	Herb Stratum (Plot size: 5 ft)		_		3 - Prevalence Ind	ex is $\leq 3.0^1$		
2. Amphicarpaea bracteata 25 Yes FAC 3. Dryopteris carthusiana 25 Yes FACW 4. Impatiens capensis 25 Yes FACW 5. Persicaria virginiana 10 No FAC 6. Impatiens capensis 10 No FAC 7. Impatiens capensis Impatiens capensis Impatiens capensis Impatiens capensis 8. Impatiens capensis Impatiens capensis Impatiens capensis Impatiens capensis Impatiens capensis 9. Impatiens capensis Impatiens capensis Impatiens capensis Impatiens capensis Impatiens capensis 10. Impatie	1. Onoclea sensibilis	40	Yes	FACW	4 - Morphological	Adaptations	(Provide s	supporting
3. Dryopteris carthusiana 25 Yes FACW Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic 4. Impatiens capensis 25 Yes FACW Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic 5. Persicaria virginiana 10 No FAC Definitions of Vegetation Strata: 6.	2. Amphicarpaea bracteata	25	Yes	FAC	data in Remarks or on a	a separate sr	ieet)	
4. Impatiens capensis 25 Yes FACW present, unless disturbed or problematic 5. Persicaria virginiana 10 No FAC Definitions of Vegetation Strata: 6.	3. Drvopteris carthusiana	25	Yes	FACW	Problematic Hydr	opnytic vege	tation' (Ex	piain)
Solution Implementation Implementation Implementation Implementation 5. Persicaria virginiana 10 No FAC Definitions of Vegetation Strata: 6. Implementation Implementation Implementation Implementation Implementation 7. Implementation Implementation Implementation Implementation Implementation 8. Implementation Implementation Implementation Implementation Implementation 9. Implementation Implementation Implementation Implementation Implementation 10. Implementation Implementation Implementation Implementation Implementation 10. Implementation Implementation Implementation Implementation Implementation 10. Implementation Implementation Implementation Implementation Implementation Implementation 11. Implementation Implementati	4. Impatiens capensis	25	Yes	FACW	indicators of nydric so	and wettan	a nyarolog matic	gy must be
And any	5. Persicaria virginiana	10	No	FAC	Definitions of Vegetatio	n Strata:	natic	
Non- Interest woody plants 5 int (7.5 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. 10. 11. 12. 12. 12. 125 125 Total Cover Noody Vine Stratum (Plot size: _30 ft)	6.				Tree Woody plants 3	n (7.6 cm) o	r moro in c	liamotor at
8.	7				hreast height (DBH) re	pardless of h	eight	nameter at
9. 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. 12. 12. 125 = Total Cover Moody Vine Stratum (Plot size: _30 ft) 125 = Total Cover	8				Sapling/shrub - Woody	plants less t	han 3 in. D	BH and
10.	9				greater than or equal to	o 3.28 ft (1 m) tall.	
10.	10				Herb – All herbaceous	non-woody)	plants, reg	ardless of
12.	11				size, and woody plants	less than 3.2	8 ft tall.	
Moody Vine Stratum (Plot size:30 ft)	12				Woody vines - All wood	ly vines great	ter than 3.	28 ft in
<u>Woody Vine Stratum</u> (Plot size: <u>_30 ft</u>)	12	125	= Total Cov	or	height.			
	Woody Vine Stratum (Plot size: 30 ft)	125		ei	Hydrophytic Vegetatio	n Present?	/es 🟒 N	0
	1							
2	2		·					
2	2.							
A								
	4		- Total Car	or				
		0		ei	J			
Remarks: (Include photo numbers here or on a separate sheet.)	Remarks: (Include photo numbers here or on a separa	te sheet.)						
A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).	A positive indication of hydrophytic vegetation was ob-	served (Pre	evalence Ind	ex is ≤ 3.00)).			

Profile Des	cription: (Describe	to the de	epth needed to d	ocum	ient the i	ndicator	or confirm the a	osence of indicators.)	
Deptn	Matrix		Redox	Feat	ures			-	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Туре	Loc ²	lext	Ren	narks
0-3	10YR 3/1	100				<u> </u>	Silty Cla	Loam	
3 - 15	10YR 3/1	98	10YR 4/6	2	<u> </u>	<u>M</u>	Silty Cla	Loam	
15 - 18	10YR 3/1	95	10YR 4/6	5	C	M	Silty	lay	
						<u> </u>			<u> </u>
						<u> </u>			<u> </u>
		·							
¹ Type: C = 0	Concentration, D =	Depletio	on, RM = Reduced	Matr	ix, MS =	Masked S	Sand Grains. ² L	ocation: PL = Pore Lining, M = Matrix	κ.
Hydric Soil	Indicators:							Indicators for Problematic Hydric	Soils³:
Histoso	I (A1)		Polyvalue Bel	low S	urface (S	8) (LRR R	, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLI	RA 149B)
Histic E	oipedon (A2)		Thin Dark Su	rface	(S9) (LRR	R, MLRA	(149B)	Coast Prairie Redox (A16) (LRR	K, L, R)
Black H	ISTIC (A3)		Loamy Mucky	y iviin d Mai	eral (F1) (triv (E2)	(LKK K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hyurog Stratifie	d Lavers (A5)		Loanty Gleye	u ivia triv (F	u ix (FZ) 3)			Dark Surface (S7) (LRR K, L)	
Deplete	d Below Dark Surfa	ace (A11	Depicted Ma) ✓ Redox Dark S	Surfac	e (F6)			Polyvalue Below Surface (S8) (LRR K, L)
Thick D	ark Surface (A12)		Depleted Dar	k Sur	face (F7)			Thin Dark Surface (S9) (LRR K,	L)
Sandy M	/lucky Mineral (S1)		Redox Depre	ssion	is (F8)			Iron-Manganese Masses (F12)	(LRR K, L, R)
Sandy (Gleyed Matrix (S4)							Pleamont Floodplain Solis (FIS) (MLRA 149B)
Sandy F	Redox (S5)							Mesic Spodic (TA6) (MERA 144/	A, 145, 149B)
Strippe	d Matrix (S6)							Very Shallow Dark Surface (TE	12)
Dark Su	irface (S7) (LRR R, M	ILRA 149	9B)					Other (Explain in Remarks)	12)
21	- C have a local distance of						I		
^a indicators	of hydrophytic veg	etation a	and wetland hydr	ology	/ must be	e present	t, uniess disturbe	d or problematic.	
Restrictive	Layer (if observed):		News			L bardada a	C .: 1 D	Ver and Ale	
	Type:		None	-		Hydric	Soil Present?	Yes No	
	Depth (inches):								
A positive i	ndication of hydric	soil was	observed. The cr	iterio	on for hyd	dric soil i:	s met.		





Soil Photos



Photo of Sample Plot South







WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creel	k Solar Projec	t	City/County:	Sprakers, Mo	ntgomery County		Sampling Date:	2021-Sept-01
Applicant/Owner: Su	unEast				State: NY		Sampling Point: V	V-JMP-05_PUB-1
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light	Ī	Se	ection, Township, Ra	nge: N/	4	
Landform (hillslope, te	rrace, etc.):	Terrace		Local reli	ef (concave, convex	, none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLR	RA): LRR	L		La	t: 42.8500839951	Long:	-74.4777004475	Datum: WGS84
Soil Map Unit Name:	Darien silt lo	oam, DaB					NWI classific	ation: PUS
Are climatic/hydrologic	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	significan	tly disturbed?	Are "Normal	Circumst	ances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally	problematic?	(If needed, ex	plain an	y answers in Rema	arks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-05							
Remarks: (Explain alternative procedures here or in a separate report)										
Covertype is PUB. Area is wetland, all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum	of one is required; check a	<u>ll that apply)</u>		Secondary Indicators (minimum of two required)		
 ✓ Surface Water (A1) ✓ High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) ✓ Inundation Visible on Aeria Sparsely Vegetated Concav 	Wate Aqua Marl Hydr Oxid Press Rece Thin I Imagery (B7) Othe re Surface (B8)	er-Stained Leaves (B9) atic Fauna (B13) Deposits (B15) rogen Sulfide Odor (C1) ized Rhizospheres on Living ence of Reduced Iron (C4) nt Iron Reduction in Tilled S Muck Surface (C7) r (Explain in Remarks)	g Roots (C3) Soils (C6)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations:						
Surface Water Present?	Yes 🟒 No	Depth (inches):	15	_		
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No		
Saturation Present?	Yes 🟒 No	Depth (inches):	0			
(includes capillary fringe)						
Describe Recorded Data (strea	m gauge, monitoring well,	aerial photos, previous ins	pections), if	available:		

Remarks:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (primary and secondary indicators were present).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-05_PUB-1

Tree Stratum (Plot size: 30 ft_)	Absolute	Dominant	Indicator	Dominance Test works	neet:		
	% Cover	Species?	Status	Are OBL_EACW_or EAC	pecies That	1	(A)
2.		·		Total Number of Domir	ant Species	1	(B)
3		·		Percent of Dominant Sp	oecies That	100	(A/B)
5				Prevalence Index works	sheet:		
6				- Total % Cover	of:	Multiply	Bv:
7				- OBL species	15	x 1 =	15
	0	= Total Cov	er	FACW species	0	x 2 =	0
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	0	x 3 =	0
1				FACU species	0	x 4 =	0
2				UPL species	0	x 5 =	0
3				Column Totals	15	(A) -	15 (B)
4				Prevalence In	dex = B/A =	1	13 (8)
5							
6				Hydrophylic Vegetation		/	
7				I- Rapid Test for F		regetation	1
	0	= Total Cov	er	2 - Dominance res	$\frac{15}{20\%}$		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				3 - Prevalence inu	e_{X} is $\geq 5.0^{\circ}$	1 (Drovida	cupporting
1. Vallisneria americana	15	Yes	OBL	4 - Morphological	Audpidiions sonarato sh		supporting
2.				Problematic Hydro	nnhytic Vege	tation ¹ (E)	(nlain)
3.				Indicators of hydric sol	il and wetlan	d hydrolo	gy must he
4.				present, unless disturb	ed or proble	matic	gy must be
5.				Definitions of Vegetation	n Strata:		
6.				Tree – Woody plants 3 i	n. (7.6 cm) oi	r more in	diameter at
7.		· ·		breast height (DBH), re	gardless of h	eight.	
8.				Sapling/shrub - Woody	plants less t	han 3 in. [OBH and
9.				greater than or equal to	o 3.28 ft (1 m) tall.	
10.				Herb – All herbaceous (non-woody)	plants, re	gardless of
11.				size, and woody plants	less than 3.2	8 ft tall.	
12				Woody vines – All wood	ly vines grea	ter than 3	.28 ft in
		= Total Cov	er	height.			
Woody Vine Stratum (Plot size: 30 ft)	15	-		Hydrophytic Vegetation	n Present?	res 🖌 N	lo
1							
··				-			
2				-			
				-			
	0	= Total Cov	er	-			

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00). A positive indication of hydrophytic vegetation was observed (Rapid Test for Hydrophytic Vegetation). A positive indication of hydrophytic vegetation.

eptri Matrix	Redox	Features		
Color (moist) -	% Color (moist)	<u>% Type¹ L</u> 	oc ² Texture	Remarks
e: C = Concentration, D = De	pletion, RM = Reduced	Matrix, MS = Ma	isked Sand Grains. ² L	ocation: PL = Pore Lining, M = Matrix.
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLR	Polyvalue Bel Thin Dark Sur Loamy Mucky Loamy Gleyed Depleted Mat (A11) Redox Dark S Depleted Dar Redox Depres	ow Surface (S8) face (S9) (LRR R, Mineral (F1) (LF d Matrix (F2) rix (F3) urface (F6) k Surface (F7) ssions (F8)	(LRR R, MLRA 149B) MLRA 149B) R K, L)	 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) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
icators of hydrophytic vegeta	tion and wetland hydr	ology must be p	resent, unless disturbe	ed or problematic.
trictive Layer (if observed): Type: Denth (inches):	None	н	ydric Soil Present?	Yes No
criterion for hydric soil is me	t. Due to inundation a	clear soil profile	was unobtainable. Soi	ls are assumed to be hydric.







Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mon	tgomery County		Sampling Date: 2	.021-Sept-01
Applicant/Owner: S	unEast				State: NY		Sampling Point: W-	JMP-05_UPL-1
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		Se	ction, Township, Ra	nge: N	A	
Landform (hillslope, te	rrace, etc.):	Levee		Local relie	f (concave, convex	, none):	Convex	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): LRR	L		Lat	42.8501826265	Long:	-74.4777198674	Datum: WGS84
Soil Map Unit Name:	Darien silt lo	oam, DaB					NWI classificat	ion: None
Are climatic/hydrologic	Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)							
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significant naturally	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circums plain an	tances" present? y answers in Remarl	Yes 🟒 No ks.)

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

Hydrophytic Vegetation Present?	Yes No 🟒							
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes 🟒 No					
Wetland Hydrology Present?	Yes No 🟒	lf yes, optional Wetland Site ID:	W-JMP-05					
Remarks: (Explain alternative procedures here or in a separate report)								
Covertype is UPL. Area is upland, not all three wetland parameters are present.								

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of o	ne is required; check all t	<u>hat apply)</u>	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave S 	Water Aquatic Marl D Hydrog Oxidize Presen Recent Thin M nagery (B7) Other (urface (B8)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 			
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _ _/ Yes No _ _/ Yes No _ _/	 Wetland Hydrology Present? Yes No			
Describe Recorded Data (stream a stream	gauge, monitoring well, a	erial photos, previous inspections), indication of wetland hydrology wa	s observed.		

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-05_UPL-1

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test worksł	neet:		
	% Cover	Species?	Status	Number of Dominant S	pecies That	1	(A)
1		·		Total Number of Domin	ant Spacias		
2.				Across All Strata:	iant species	4	(B)
3				Percent of Dominant St	pecies That		
4.		·		Are OBL, FACW, or FAC:		25	(A/B)
S		·		Prevalence Index works	sheet:		
o		·		Total % Cover	of:	<u>Multiply</u>	<u>By:</u>
<i>1.</i>		- Tatal Cau		OBL species	0	x 1 =	0
Carling (Church Church und (Diet einen 15 ft.)	0		er	FACW species	0	x 2 =	0
Sapling/Shrub Stratum (Plot size:15 ft)				FAC species	20	x 3 =	60
1		<u> </u>		FACU species	110	x 4 =	440
2.		<u> </u>		UPL species	20	x 5 =	100
3				Column Totals	150	(A)	600 (B)
4.				Prevalence In	dex = B/A =	4	
5.				Hydrophytic Vegetation	Indicators:		
6.				1- Rapid Test for H	lydrophytic V	egetatior	ı
/	·			2 - Dominance Tes	st is > 50%	0	
	0	= Total Cov	er	3 - Prevalence Ind	ex is $\leq 3.0^1$		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations ¹	(Provide	supporting
1. Melilotus indicus	40	Yes	FACU	data in Remarks or on a	a separate sh	ieet)	
2. Cirsium arvense	30	Yes	FACU	Problematic Hydro	ophytic Vege	tation ¹ (Ex	kplain)
3. <u>Setaria pumila</u>	20	Yes	FAC	¹ Indicators of hydric so	l and wetlan	d hydrolo	gy must be
4. <u>Daucus carota</u>	20	Yes	UPL	present, unless disturb	ed or probler	matic	
5. <i>Ambrosia artemisiifolia</i>	15	No	FACU	Definitions of Vegetatio	n Strata:		
6. <i>Solidago canadensis</i>	10	No	FACU	Tree – Woody plants 3 i	n. (7.6 cm) or	r more in	diameter at
7. <u>Trifolium pratense</u>	10	No	FACU	breast height (DBH), reg	gardless of h	eight.	
8. <u>Cichorium intybus</u>	5	No	FACU	Sapling/shrub – Woody	plants less t	han 3 in. I	DBH and
9				greater than or equal to	o 3.28 ft (1 m) tall.	
10				Herb – All herbaceous (non-woody)	plants, re	gardless of
11				Size, and woody plants	less than 3.2	8 IL LAII.	20 ft in
12				height	ly villes great		.201111
	150	= Total Cov	er		D (D)	, ,	
Woody Vine Stratum (Plot size: <u>30 ft</u>)				Hydrophytic Vegetation	n Present?	/es ľ	No 🔽
1							
2							
3							
4							
	0	= Total Cov	er				
Remarks: (Include photo numbers here or on a separa	te sheet)						
Pond embankment.	ce sneed)						

Inches) Color (moist) % Color (moist) % Type* Loc* Texture Remarks 0-10 10YR 3/2 100	(inches)	Matrix		Redox	: Feat	ures			
010 10YR 3/2 100 Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Image: Silt Loam Ima		Color (moist)	%	Color (moist)	%	Type ¹	Loc ² Te	ture	Remarks
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Histosol (A1)	0 - 10	10YR 3/2	100				Silt	oam	
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. yrdric Soil Indicators: Indicators for Problematic Hydric Soils*: Histic Spipedon (A2) Thin Dark Surface (S8) (LRR R, MLRA 149B) Black Histic (A3) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F2) Depleted Below Dark Surface (F6) Thin Dark Surface (F7) Thick Dark Surface (F6) Thin Dark Surface (F7) Sandy Gleyed Matrix (F3) Depleted Dark Surface (F7) Sandy Redox (S5) Depleted Dark Surface (F7) Stripped Matrix (S6) Depleted Matrix (F3) Dark Surface (S7) (LRR R, MLRA 149B) Mesic Spodic (TA6) (MLRA 144B, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Depleted Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sturface (S7) (LRR R, MLRA 149B) Strittive Layer (If Observed): Type: None Type: None Hydric Soil Present? Yes									
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. wdric Soil Indicators: Indicators for Problematic Hydric Soils*: Histosol (A1)			·				. <u> </u>		
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils*: Histoscol (A1)									
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. yrdric Soil Indicators: Indicators for Problematic Hydric Soils*: Histocsol (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 K, L) S const Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) S const Prairie Redox (A16) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) D const Prairie Redox (A16) (LRR K, L) Hydrogen Sulfide (A2)			·						
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) C and Muck (A10) (LRR K, L, MLRA 149B)			·						
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. yrdric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Stratified Layers (A5) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (F1) Thin Dark Surface (S9) (LRR K, L) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Sandy Redox (S5) Depleted Matrix (F3) Stripped Matrix (S6) Redox Depressions (F8) Stripped Matrix (S6) Red Parent Material (F12) Dark Surface (S7) (LRR R, MLRA 149B) Wery Shallow Dark Surface (TF12) Dark Surface (S7) Redox Depressions (F8) Sandy Redox (S5) Red Parent Material (F21) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) </td <td></td> <td></td> <td> ·</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			·						
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histosol (A2)			· ·				·		
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : 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) 2 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 (7) (LRR K, L) Stratified Layers (A5) Depleted Matrix (F3) Dark Surface (S9) (LRR K, L) Polyvalue Below Dark Surface (A12) Depleted Dark Surface (F6) Thin Dark Surface (F12) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shall			• •						
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thic Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Stritified Matrix (S6) Red Parent Material (F121) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Sandy Redox (S5) Red Parent Material (F21) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149			· ·						
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. 2Location: PL = Pore Lining, M = Matrix. ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. 2Location: PL = Pore Lining, M = Matrix. ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. 2Location: PL = Pore Lining, M = Matrix. ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. 2Location: PL = Pore Lining, M = Matrix. ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. Indicators for Problematic Hydric Soils?:			• •				·		
Adric Soil Indicators: Indicators: Indicators:	 Гуре: С = С	Concentration, D = l	Depletic	n, RM = Reduced	Mati	rix, MS =	Masked Sand Grain	² Location: PL = Pore Lining,	M = Matrix.
Histosol (A1)	ydric Soil	Indicators:						Indicators for Problema	tic Hydric Soils ³ :
	Histosol	(A1)		Polyvalue Be	low S	urface (S	8) (LRR R, MLRA 149	3) 2 cm Muck (A10) (I R	R K. I. MI RA 149B)
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) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) adicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Very Shallow Dark Surface (TF12) Type: None Hydric Soil Present? Yes No Depth (inches): Type: None Yes No Yes More of thill, gravell	Histic Ep	oipedon (A2)		Thin Dark Su	rface	(S9) (LRR	R, MLRA 149B)	Coast Prairie Redox	(A16) (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) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No marks: Depth (inches): Positive indication of hydric soils was observed. Refusal due to coarse fragments. Pond embankment, soil appears to be imported fill, gravell	Black Hi	stic (A3)		Loamy Muck	y Min	eral (F1)	(LRR K, L)	5 cm Mucky Peat or	Peat (S3) (LRR K. L. R)
	Hydroge	en Sulfide (A4)		Loamy Gleye	d Ma	trix (F2)		Dark Surface (S7) (LF	R K. L)
	Stratifie	d Layers (A5)		Depleted Ma	trix (F	-3)		Polyvalue Below Sur	face (S8) (LRR K, L)
	_ Deplete	d Below Dark Surfa	ace (A11)) Redox Dark S	Surfac	ce (F6)		Thin Dark Surface (S	9) (LRR K. L)
	Thick Da	ark Surface (A12)		Depleted Dar	rk Sui	face (F7)		Iron-Manganese Ma	sses (F12) (LRR K. L. R)
_ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) _ Dark Surface (S7) (LRR R, MLRA 149B) _ Dark Surface (S7) (LRR R, MLRA 149B) _ Other (Explain in Remarks) _ Other (Explain in Remarks) _ Other (Explain in Remarks) _ Other (Explain in Remarks) _ Meice Soil Present? _ Yes No _ Depth (inches): _ marks: _ positive indication of hydric soils was observed. Refusal due to coarse fragments. Pond embankment, soil appears to be imported fill, gravell	_ Sandy N	lucky Mineral (S1)		Redox Depre	ssion	is (F8)		Piedmont Floodplair	Soils (F19) (MLRA 149B)
_ Sandy Redox (S5)	Sandy G	leyed Matrix (S4)						Mesic Spodic (TA6) (I	MLRA 144A, 145, 149B)
_ Stripped Matrix (S6) _ Dark Surface (S7) (LRR R, MLRA 149B) mdicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): 	Sandy R	edox (S5)						Red Parent Material	(F21)
_ Dark Surface (S7) (LRR R, MLRA 149B)Other (Explain in Remarks)Other (Explain in Remarks)Other (Explain in Remarks)Other (Explain in Remarks)	Stripped	d Matrix (S6)						Very Shallow Dark S	urface (TF12)
ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type:NoneHydric Soil Present? YesNo< Depth (inches): emarks: popositive indication of hydric soils was observed. Refusal due to coarse fragments. Pond embankment, soil appears to be imported fill, gravell	Dark Su	rface (S7) (LRR R, N	1LRA 149	∂B)				Other (Explain in Rei	marks)
	ndicators	of hydrophytic veg	etation a	and wetland hydr	olog	y must be	e present, unless dis	urbed or problematic.	
Type: None Depth (inches): Prmarks: positive indication of hydric soils was observed. Refusal due to coarse fragments. Pond embankment, soil appears to be imported fill, gravelled and the source of the s					0.			•	
Depth (inches): marks: o positive indication of hydric soils was observed. Refusal due to coarse fragments. Pond embankment, soil appears to be imported fill, gravel	estrictive l	_ayer (if observed):					Hydric Soil Presen	Yes No	/
marks: o positive indication of hydric soils was observed. Refusal due to coarse fragments. Pond embankment, soil appears to be imported fill, gravel	estrictive l	Layer (if observed): Type:		None					
o positive indication of hydric soils was observed. Refusal due to coarse fragments. Pond embankment, soil appears to be imported fill, gravel	estrictive l	Layer (if observed): Type: Depth (inches):		None	-				_
	estrictive I	Type: Depth (inches):		None	- 				_
	estrictive l emarks: o positive	Type: Depth (inches): indication of hydri	c soils w	vas observed. Ref	usal	due to co	arse fragments. Poi	d embankment, soil appears to	be imported fill, gravell
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	estrictive l emarks: o positive	Type: Depth (inches): indication of hydri	c soils w	None	usal o	due to co	arse fragments. Poi	d embankment, soil appears to	b be imported fill, gravell
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	estrictive l emarks: o positive	Type: Depth (inches): indication of hydri	c soils w	vas observed. Ref	usal (due to co	arse fragments. Poi	d embankment, soil appears to	b be imported fill, gravell
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	emarks:	ayer (if observed): Type: Depth (inches): indication of hydri	c soils w	None	usal (due to co	arse fragments. Poi	d embankment, soil appears to	b be imported fill, gravell
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	estrictive l emarks: o positive	ayer (if observed): Type: Depth (inches): indication of hydri	c soils w	None	usal (due to co	arse fragments. Poi	d embankment, soil appears to	b be imported fill, gravell
	estrictive l emarks: o positive	ayer (if observed): Type: Depth (inches): indication of hydri	c soils w	None	usal (due to co	arse fragments. Por	d embankment, soil appears to	b be imported fill, gravell
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	estrictive l emarks: lo positive	ayer (if observed): Type: Depth (inches): indication of hydri	c soils w	vas observed. Ref	usal (due to co	arse fragments. Por	d embankment, soil appears to	be imported fill, gravell
	estrictive l emarks: lo positive	ayer (if observed): Type: Depth (inches): indication of hydri	c soils w	vas observed. Ref	usal (due to co	arse fragments. Por	d embankment, soil appears to	be imported fill, gravel





Photo of Sample Plot East



Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mont	gomery Cour	nty		Sampling Date:	2021-Sept-01	
Applicant/Owner: S	unEast				State: N	NΥ		Sampling Point: W	-JMP-05_UPL-2	
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		Sec	tion, Townsh	nip, Rang	e: N/	A		
Landform (hillslope, te	rrace, etc.):	Flat		Local relie	f (concave, co	onvex, no	one):	None	Slope (%):	1 to 3
Subregion (LRR or MLF	RA): LRR	L		Lat	42.8495500	0776 L	.ong:	-74.4770833487	Datum: Wo	JS84
Soil Map Unit Name:	Darien silt lo	am, DaB						NWI classifica	tion: None	
Are climatic/hydrologic	c conditions o	n the site typical	for this time	of year?	Yes 🟒	No	(If no	, explain in Remark	(S.)	
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significant naturally p	tly disturbed? problematic?	Are "Noi (If neede	rmal Ciro ed, expla	cumst ain any	ances" present? / answers in Remar	Yes 🟒 No _ rks.)	

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

Hydrophytic Vegetation Present?	Yes No 🟒								
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No _	If yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of or	<u>ne is required; check all t</u>	<u>hat apply)</u>	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave Sume 	Water- Aquatii Marl D Hydrog Oxidize Presen Recent Thin M agery (B7) Other urface (B8)	 Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 			
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream g	Yes No Yes No Yes No auge, monitoring well, a	 Wetland Hydrology Present? f available:	Yes No		
Remarks: The criterion for wetland hydrolog	y is not met. No positive	indication of wetland hydrology was	s observed.		

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-05_UPL-2

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
	% Cover	Species?	Status	Number of Dominant	Species That	3	(A)
1. <i>Tilia americana</i>	75	Yes	FACU	Are OBL, FACW, or FAC	:		
2. <i>Tsuga canadensis</i>	50	Yes	FACU	Iotal Number of Domi	nant Species	8	(B)
3. <u>Acer saccharum</u>	15	No	FACU	ACTOSS All Strata.	nacios That		
4. <i>Fraxinus americana</i>	10	No	FACU	Are OBL. FACW. or FAC	pecies mat	37.5	(A/B)
5. <i>Ulmus americana</i>	5	No	FACW	Prevalence Index work	sheet:		
6				Total % Cover	of	Multiply F	Rv.
7				OBL species	0	x 1 =	-
	155	= Total Cov	er	FACW species	5	x 2 =	10
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	25	x3=	75
1. Carpinus caroliniana	10	Yes	FAC	FACU species	185	× 4 =	740
2. <u>Acer saccharum</u>	5	Yes	FACU		0	×5=	0
3. Carpinus caroliniana	5	Yes	FAC	Column Totals	215	×) =	0 07E (D)
4.				Drovalance	ZIJ	(A)	623 (B)
5.					IUEX – D/A –		
6.				Hydrophytic Vegetation	n Indicators:		
7.		·		1- Rapid Test for I	Hydrophytic V	/egetation	
	20	= Total Cov	er	2 - Dominance Te	st is > 50%		
Herb Stratum (Plot size: 5 ft)		_		3 - Prevalence Inc	dex is $\leq 3.0^1$		
1. Parthenocissus quinquefolia	20	Yes	FACU	4 - Morphological	Adaptations	¹ (Provide s	supporting
2. Fraxinus americana	10	Yes	FACU	data in Remarks or on	a separate sh	ieet)	- 1 - : -)
3. <i>Geum canadense</i>	5	No	FAC	Problematic Hydr	opnytic vege	tation' (Exp	biain)
4				Indicators of hydric sc	and wetian	a nyarolog matic	y must be
5		· ·		Definitions of Vegetativ	n Ctrata	matic	
6		·		Tree Weedy plants 2	in (7.6 cm) or	r mara in d	ismotor st
7		·		hroast boight (DBH) ro	mardless of b	night	lameter at
7 o				Sanling/shruh - Woody	v nlants loss ti	ban 3 in D	BH and
o				greater than or equal t	o 3.28 ft (1 m) tall.	biranu
10		·		Herb – All herbaceous	(non-woody)	, plants, reg	ardless of
11		·		size, and woody plants	less than 3.2	8 ft tall.	
12				Woody vines - All woo	dy vines great	ter than 3.2	28 ft in
12		- Total Cau		height.			
	35	= 10tal Cov	er	Hydrophytic Vegetatic	n Present?	res N	0 🖌
<u>woody vine stratum</u> (Plot size: <u>30 ft</u>)	F	Vee	EAC				
	5	Yes	FAC				
2.		·					
3							
4							
	5	= Total Cov	er				
Remarks: (Include photo numbers here or on a separat	e sheet.)			_			

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC- or drier).

Depth Matrix Redox Features (nches) Color (moist) % Texture Remarks 14 - 18 10/YR 3/3 100	Profile Des	cription: (Describe	to the de	epth needed to d	ocum	nent the i	indicato	r or confirm the a	bsence of indicators.)
(index) Color (moist) Yppe Loc ² Texture Remarks 14-18 10YR 3/3 100	Depth	Matrix		Redox	Feat	ures			
0.14 107R 3/2 100	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
14-18 10YR 3/3 100	0 - 14	10YR 3/2	100					Silt Loam	n
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location. PL = Pore Lining, M = Matrix. Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location. PL = Pore Lining, M = Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils? Histic Epipedion (A2) Thin Dark Surface (S9) (LRR K, MLRA 1498) Stratified Layers (A5) Depleted Matrix (F2) Stratified Layers (A5) Depleted Matrix (F2) Stratified Layers (A5) Depleted Matrix (F2) Sondy Gleged Matrix (F3) Depleted Matrix (F3) Sondy Gleged Matrix (F3) Depleted Matrix (F3) Sondy Gleged Matrix (F3) Depleted Matrix (F2) Sondy Gleged Matrix (F3) Depleted Matrix (F3) Sondy Gleged Matrix (F3) Depleted Matrix (F1) Sondy Gleged Matrix (F3) Pledmatr Hodpiain Soils (F19) (MLR A L4A, 145, 1498) Red Arear (C1) (LR R, MLRA 1498) Make Spolic (TaGio (MLRA 144A, 145, 1498) Sondy Gleged Matrix (F3) Pledmatr Hodpiain Soils (F19) (MLRA 144A, 145, 1498) Sondy Gleged Matrix	14 - 18	10YR 3/3	100					Silt Loam	n
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. Location: PL = Pore Lining, M = Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils?: Histosoi (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 1499)					_				
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils? Histos (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 1498) Histos (A1) Delyvalue Below Surface (S9) (LRR R, MLRA 1498) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Stripted Suffied (A4) Loamy Sieved Matrix (F3) Depleted Below Dark Surface (F6) Thin Dark Surface (F6) Thick Dark Surface (F12) Depleted Dark Surface (F6) Sandy Mucky (Mineral (S1) Redox Depressions (F8) Sandy Kurky (Mineral (S1) Redox Depressions (F8) Sandy Kurky (Mineral (S1) Redox Depressions (F8) Sandy Kurky (G4) Matrix (S6) Stripped Matrix (S6) Red Autria (P12) Dark Surface (S7) (LRR R, MLRA 1498) Watria (S14) Sturface (S7) (LRR R, MLRA 1498) Watria (S14) Sturface (S7) (LRR R, MLRA 1498) Watrix (S6) Prover Matrix (S6) Hydric Soil Present? Ype: None Uperkit Matrix (S6) Hydric Soil Present? Ype: None Upetht (inches): None <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Hydrc Soil Indicators: Indicators for Problematic Hydric Soils? — Histic Epipedion (A2) — Thin Dark Surface (S9) (LRR R, MLRA 1499)									
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. -Location: PL = Pore Lining, M = Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils? Histos [010] Polyvalue Below Surface (S9) (LRR R, MLRA 1499) 2 cm Muck (A10) (LRR K, L, R) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Scatter (F2) Stratified Layers (A5) Depleted Matrix (F2) Dark Surface (S9) (LRR K, L) Depleted Below Dark Surface (T4)1 Redox Depressions (F8) Polyvalue Below Surface (S9) (LRR K, L) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Thin Dark Surface (S7) (LRR K, L, R) Sandy Redox (S5) Redox Depressions (F8) Pledmont Foodplain Soils (F19) (MLRA 1498) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (F7) (LRR K, L, R) Stripped Matrix (S6) Red Parent Material (F21) Very Shallow Dark Surface (F7) (LRR K, L, R) Dark Surface (S7) (LRR R, MLRA 1498) Medic Spoil (CF6) (MLRA 1448, 145, 1498) Sandy Redox (S5) Red Parent Material (F21) Dark Surface (S7) (LRR R, MLRA 1498) Were Spoil Wark Surface (F7) (MLRA 1448, 145, 1498) Dark Surface (S7) (LRR R, MLRA 1498) Medic Spoil (MLRA 1448, 145, 1498) Stripped Matrix (S6) Remark: </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Hydrc Soil Indicators: Indicators for Problematic Hydric Soils? Hitstospilor(A2) Thin Dark Surface (S3) (LRR R, MLRA 1498) 2 cm Muck (A10 (LRR K, L, R) Black Histic (A3) Learny Mucky Mineral (F1) (LRR K, L)									
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils? Histos (IA1) Polyvalue Below Surface (S8) (LRR R, MLRA 1499) 2 cm Muck (A10) (LRR K, L RA 1499) Histos (IA1) Loamy Mucky Micra (F1) (LRR K, L) 5 cm Muck (A10) (LRR K, L R) Black Histic (A3) Loamy Mucky Micra (F1) (LRR K, L) 5 cm Muck (A10) (LRR K, L) Straffed Layers (A5) Depleted Matrix (F2) Dark Surface (S1) (LRR K, L) Depleted Below Dark Surface (F1) Polyvalue Below Surface (S3) (LRR K, L) Polyvalue Below Surface (S3) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Thin Dark Surface (S1) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L R) Sandy Mucky Mineral (S1) Red Parent Material (F21) Wesic Spodic (TA4) (MLRA 1499) Red Parent Material (F21) Sandy Redox (S5)									
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils? Histosci (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L R) Stratified Layers (A5) Depleted Matrix (F3) Dark Surface (S7) (LRR K, L) Stratified Jayers (A5) Depleted Matrix (F3) Dark Surface (S7) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Pielemont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Mesic Solid (LRA (MLRA 149B) Sandy Redox (S5) Red Parent Matria (F2) Mesic Solid (LRA (MLRA 149B) Sandy Redox (S5) Red Matrix (S4) Solid (LRA 149B) Straffaed (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Retricture Layer (Roserved): Type: None Hydric Soil Present? Yes No Depth (inches): Popt hydric soils was observed. The criterion for hydric soil is not met.					_				
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Hydric Soll Indicators: Indicators for Problematic Hydric Solls? Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, RIA 149B) Histosol (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Loamy Gleyed Matrix (F2) Dark Surface (S7) (LRR K, L) Stratified Layers (A5) Depleted Matrix (F3) Polyvalue Below Surface (S3) (LRR K, L) Depleted Below Dark Surface (A12) Depleted Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Sandy Micky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 1449B) Sandy Redox (S5) Red Parent Material (F21) Other (Explain in Remarks) Stripped Matrix (S4) Wesic Spodic (TA6) (MLRA 1445) Piedmont Surface (F12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Wesic Spodic (TA6) Wesic Spodic (TA6) Sandy Mucky Mineral (S1) Rewarks: None Yery Smallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12)<					_				
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix, Hydric Soil Indicators: Indicators for Problematic Hydric Soils*; Histos (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) Coast Praine Redox (A16) (LRR K, L, M); Black Histic (A3) Learny Mucky Mineral (F1) (LRR K, L) So ast Praine Redox (A16) (LRR K, L, R); Pydrogen Sulfide (A4) Learny Mucky Mineral (F1) So ast Praine Redox (A16) (LRR K, L, R); Depleted Below Dark Surface (A17) Depleted Dark Surface (F6); Polyvalue Below Surface (S8) (LRR K, L); Thick Dark Surface (A12) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L); Sandy Gleyed Matrix (S4) Metrix (S4) Metrix (S4) Sandy Gleyed Matrix (S6) Red Parent Material (F12); MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Out As urface (F7) Thine Dark Surface (T12); Stirpped Matrix (S6) Red Parent Material (F12); MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Metarial (F12); Out Present? Type: None Hydric Soil Present? Yes_No_Z Depth (inches): None Hydric Soil Is not met. No positive indication of hydric soils was observed. The crit					_				
Hydric Soil Indicators:	¹ Type: C = 0	Concentration, D =	Depletio	n, RM = Reduced	Mat	rix, MS =	Masked	Sand Grains. ² L	ocation: PL = Pore Lining, M = Matrix.
	Hvdric Soil	Indicators:							Indicators for Problematic Hydric Soils ³ :
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 1498) Coast Prairie Redox (A16) (LRR K, L R) Coast Prairie Redox (A16) (LRR K, L R) S cro Mucky Peat or Peat (S3) (LRR K, L R) S cro Mucky Peat or Peat (S3) (LRR K, L R) S cro Mucky Peat or Peat (S3) (LRR K, L R) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (S4) Cosst Prairie Redox (A16) (LRR K, L R) Depleted Matrix (S4) Redox Depressions (F8) Predmont Floodplain Solifs (F19) (MLRA 1498) Redox (S5) Redox (S5) Redox (S5) Red Parent Material (F21)	Histoso	l (A1)		Polyvalue Bel	ow S	urface (S	8) (LRR	R, MLRA 149B)	2 cm Muck (A10) (I DD K L A4 DA 140D)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) S 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) Depleted Matrix (F3) Depleted Blow Dark Surface (A11) Redox Dark Surface (F7) Thin Dark Surface (S8) (LRR K, L) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Thin Dark Surface (S1) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Peledmont Floodplain Solis (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Redox Depressions (F8) Peledmont Floodplain Solis (F19) (MLRA 149B) Stripped Matrix (S4)	Histic E	pipedon (A2)		Thin Dark Su	face	(S9) (LRF	R, MLR	A 149B)	2 CIII Muck (ATO) (ERR N, L, MERA 149B)
Hydrogen Sulfide (A4) Loamy Gleved Matrix (F2) Dark Surface (S1) (ERR K, L) Stratified Layers (A5) Depleted Matrix (F3) Dark Surface (S2) (ERR K, L) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thin Dark Surface (S2) (ERR K, L) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Thom Angenese Masses (F12) (ER K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: None Hydric Soil Present? Yes	Black H	istic (A3)		Loamy Muck	/ Min	eral (F1)	, (LRR K, I	_)	E cm Mucky Post or Post (S2) (LRR K, L, R)
	Hydrog	en Sulfide (A4)		Loamy Gleye	d Ma	trix (F2)			Dark Surface (S7) (I PP K 1)
Tepleted Below Dark Surface (A11)Redox Dark Surface (F6) Thic Dark Surface (S9) (LRR K, L) Thic Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1)Redox Depressions (F8)Hron-Manganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1)Redox Depressions (F8)Hron-Manganese Masses (F12) (LRR K, L, R) Sandy Redox (S5)	Stratifie	d Layers (A5)		Depleted Ma	rix (I	-3)			Polyvalue Below Surface (S8) (I RR K 1)
Thick Dark Surface (A12)	Deplete	d Below Dark Surfa	ace (A11) Redox Dark S	urfa	ce (F6)			Thin Dark Surface (S9) (I RR K 1)
Sandy Mucky Mineral (51)Redox Depressions (F8)Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (55)Sopoiet (TA6) (MLRA 144A, 145, 149B) Stripped Matrix (56)Very Shallow Dark Surface (TF12) Dark Surface (57) (LRR R, MLRA 149B)Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): 	Thick Da	ark Surface (A12)		Depleted Dar	k Su	face (F7))		Iron-Manganese Masses (E12) (I RR K. L. R)
Sandy Gleyed Matrix (S4)Mesic Spodic (TA6) (MLRA 144A, 145, 149B)Mesic Spodic (TA6) (MLRA 144A, 145, 149B)Red Parent Material (F21)Mesic Spodic (TA6) (MLRA 144B, 145, 149B)Other CS J (LRR R, MLRA 149B)Other (Explain in Remarks) andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (If observed):	Sandy N	lucky Mineral (S1)		Redox Depre	ssior	is (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Redox (S5)Red Parent Material (F21) 	Sandy C	Gleyed Matrix (S4)							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	Sandy F	ledox (S5)							Red Parent Material (F21)
Dark Surface (S7) (LRR R, MLRA 1498)Other (Explain in Remarks) andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed):Type:NoneHydric Soil Present? YesNo Depth (inches): Remarks: No positive indication of hydric soils was observed. The criterion for hydric soil is not met.	Strippe	d Matrix (S6)							Very Shallow Dark Surface (TF12)
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: None Depth (inches): Hydric Soil Present? Yes No Remarks: No positive indication of hydric soils was observed. The criterion for hydric soil is not met.	Dark Su	rface (S7) (LRR R, N	1LRA 149	9B)					Other (Explain in Remarks)
Restrictive Layer (if observed):	³ Indicators	of hydrophytic yeg	etation a	and wetland hydr	പറച	/ must h	e nreser	nt unless disturbe	ed or problematic
Type: None Depth (inches): Hydric Soil Present? Remarks: No positive indication of hydric soils was observed. The criterion for hydric soil is not met.	Restrictive	aver (if observed):			0.08	,			
Depth (inches):		Type:		None			Hydric	Soil Present?	Yes No. /
Remarks: No positive indication of hydric soils was observed. The criterion for hydric soil is not met.		Depth (inches):		None			ingene	Son resent.	
Remarks: No positive indication of hydric soils was observed. The criterion for hydric soil is not met.	Deres enlare	Depth (inches).							





Soil Photos



Photo of Sample Plot North



Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mo	ntgomery Count	у	Sampling Date:	2021-Sept-02
Applicant/Owner: S	unEast				State: N	/	Sampling Point:	W-JMP-06_PEM-1
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light	Ī	S	ection, Township	, Range: N	A	
Landform (hillslope, te	rrace, etc.):	Channel		Local re	ief (concave, cor	vex, none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLR	RA): LRR	L		L	at: 42.85070726	47 Long:	-74.4765597066	Datum: WGS84
Soil Map Unit Name:	Darien silt lo	am, DaB					NWI classifie	cation: None
Are climatic/hydrologic	conditions o	n the site typical	for this time	of year?	Yes 🟒 N	o (If n	o, explain in Rema	irks.)
Are Vegetation,	Soil,	or Hydrology	significan	tly disturbed?	Are "Norr	nal Circums	tances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally	problematic?	(If needed	l, explain ar	ny answers in Rem	arks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No							
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No					
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-06					
Remarks: (Explain alternative procedures here or in a separate report)								
Covertype is PEM. Area is wetland, all three wetland parameters are present.								

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum c	of one is required; check a	Secondary Indicators (minimum of two required)			
 ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave 	Wate Aqua Marl Hydr Oxid Preso Rece Thin l Imagery (B7) Othe e Surface (B8)	; Roots (C3) ioils (C6)	✓ Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) ✓ Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) ✓ FAC-Neutral Test (D5)		
Field Observations:					
Surface Water Present?	Yes 🟒 No	Depth (inches):	4	_	
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No	
Saturation Present?	Yes 🟒 No	Depth (inches):	0		
(includes capillary fringe)					
Describe Recorded Data (strea	m gauge, monitoring well,	, aerial photos, previous insj	pections), if	available:	

Remarks:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (primary and secondary indicators were present).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-06_PEM-1

Tree Churchurg (Distringer, 20 ft.)	Absolute	Dominant	Indicator	Dominance Test works	heet:			
<u>Iree Stratum</u> (Plot Size: <u>30 ft</u>)	% Cover	Species?	Status	Number of Dominant	Species That	3	(A)	
1				Are OBL, FACW, or FAC	:			
2	·			Iotal Number of Domi	nant Species	4	(B)	
3				- Percent of Dominant Species That				
4				- Are OBL, FACW, or FAC:		75	(A/B)	
5.				Prevalence Index worksheet:				
6.				- <u>Total % Cover of:</u> <u>Multiply B</u>		By:		
/	·			OBL species	50	x 1 =	50	
	0	= Total Cove	er	FACW species	25	x 2 =	50	
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	20	x 3 =	60	
1	·			FACU species	0	x 4 =	0	
2	·			UPL species	30	x 5 =	150	
3				Column Totals	125	(A)	310 (B)	
4				Prevalence li	ndex = B/A =	2.5		
5.				Hydrophytic Vegetatio	n Indicators:			
6.				1- Rapid Test for	Hydrophytic V	'egetation	1	
7				2 - Dominance Te	st is >50%	0		
	0	= Total Cove	er	3 - Prevalence Inc	dex is $\leq 3.0^1$			
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphologica	Adaptations ¹	(Provide	supporting	
1. Leersia oryzoides	30	Yes	OBL	data in Remarks or on	a separate sh	eet)		
2. <u>Artemisia vulgaris</u>	30	Yes	UPL	Problematic Hydrophytic Vegetation ¹ (Explain)				
3. <i>Typha latifolia</i>	20	Yes	OBL	¹ Indicators of hydric so	il and wetlan	d hydrolo	gy must be	
4. <u>Calystegia sepium</u>	20	Yes	FAC	present, unless disturb	ed or probler	matic		
5. <i>Persicaria pensylvanica</i>	15	No	FACW	Definitions of Vegetati	on Strata:			
6. <i>Phalaris arundinacea</i>	10	No	FACW	Tree – Woody plants 3	in. (7.6 cm) or	more in	diameter at	
7				breast height (DBH), re	gardless of h	eight.		
8				Sapling/shrub - Wood	/ plants less tl	han 3 in. [OBH and	
9				greater than or equal t	:o 3.28 ft (1 m) tall.		
10				Herb – All herbaceous	(non-woody)	plants, reg	gardless of	
11				size, and woody plants	less than 3.2	8 IL LAII.	20.44 :	
12				boight	dy vines great	er than 3	.28 IUM	
	125	= Total Cove	er					
Woody Vine Stratum (Plot size: <u>30 ft</u>)				Hydrophytic Vegetatio	on Present?	/es 🟒 N	lo	
1								
2								
3								
4.								
	0 = Total Cover							
Remarks: (Include photo numbers here or on a separat	e sheet.)							

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

Profile Des	cription: (Describe	to the d	epth needed to d	ocum	nent the i	ndicator	or confirm the at	osence of indicato	ors.)
(inchos)	Matrix	04	Color (moist)	(Feat	Turnel	1.0.02	T		Domorka
(incres)		100	Color (moist)	90	Туреч	LOC ²	lexture		Remarks
1 10	10TR 2/1	100							
19 20	10TR 2/1			10			Silty Clay Loam		
18-20	101R 4/2	90	2.51R 5/4	10		IVI	Clay		
·		·							
		·							
		·		—				<u> </u>	
	Concontration D =	Doplati				Mackad	Cond Craine 21	acation: DL - Dara	Liping M - Matrix
Type. C = C		Depletio	Sh, Rivi – Reduced	IVIAL	1X, IVIS –	waskeu	Sanu GrainsLu	Indicators for P	
Hydric Soll	Indicators:		Debarahua Ba		urfaca (C			Indicators for Pr	roblematic Hydric Solls ³ :
Histoso	ningdon (A2)		Polyvalue Be	rfaco			(, IVILKA 1490)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Flack H	istic (A3)			v Min	eral (F1)	IRR KI)	Coast Prairie	e Redox (A16) (LRR K, L, R)
Hydrog	en Sulfide (A4)		Loamy Gleve	d Ma	trix (F2)		-)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Stratifie	ed Layers (A5)		Depleted Ma	trix (l	-3)			Dark Surface	e (S/) (LRR K, L)
Deplete	d Below Dark Surf	ace (A11) Redox Dark	Surfa	ce (F6)				rf_{2} (CO) (LRK K, L)
_ ∕ Thick D	ark Surface (A12)		Depleted Da	rk Su	face (F7)			Iron-Mangar	nese Masses (E12) (I RR K I R)
Sandy M	Aucky Mineral (S1)		Redox Depre	essior	ıs (F8)			Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy (Gleyed Matrix (S4)							Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy F	Redox (S5)							Red Parent I	Material (F21)
Strippe	d Matrix (S6)							Very Shallow	v Dark Surface (TF12)
Dark Su	urface (S7) (LRR R, N	MLRA 14	9B)					Other (Expla	iin in Remarks)
³ Indicators	of hydrophytic veg	getation	and wetland hyd	rolog	y must be	e presen	t, unless disturbe	d or problematic.	
Restrictive	Layer (if observed)	:							
	Туре:		None			Hydric	Soil Present?		Yes 🟒 No
	Depth (inches):								
Remarks:									
A positive i	ndication of hydric	soil was	s observed. The c	riterio	on for hyd	dric soil i	is met.		

Hydrology Photos







Soil Photos



Photo of Sample Plot North


Photo of Sample Plot East



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	City/0	County: Sprakers, Mo	ontgomery County		Sampling Date:	2021-Sept-02	
Applicant/Owner: S	unEast			State: NY	S	ampling Point: V	V-JMP-06_UPL-1	
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		Section, Township, Ra	nge: NA			
Landform (hillslope, te	rrace, etc.):	Flat	Local re	lief (concave, convex,	, none):	Convex	Slope (%): 1 to 3	
Subregion (LRR or MLF	RA): LRR	-	L	at: 42.8506251418	Long: -	74.4766226421	Datum: WGS84	
Soil Map Unit Name:	Darien silt lo	am, DaB				NWI classific	ation: None	
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 sig	gnificantly disturbed?	Are "Normal C	Circumsta	ances" present?	Yes No 🟒	
Are Vegetation,	Soil,	or Hydrology na	aturally problematic?	(If needed, ex	plain any	answers in Rema	arks.)	

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

Hydrophytic Vegetation Present?	Yes No 🟒								
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No 🟒	If yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all three	e wetland parameters ar	e present. Circumstances are not normal due to agricul	tural activities.						
Circumstances are not normal due to mowin	g of vegetation.								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one	Secondary Indicators (minimum of two required)	
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imag Sparsely Vegetated Concave Surf 	 Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) gery (B7) Other (Explain in Remarks) 	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _∠ Depth (inches): Yes No _∠ Depth (inches): Yes No _∠ Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gau	ige, monitoring well, aerial photos, previous inspections), if	available:
The criterion for wetland hydrology	is not met, no positive multation of wetland hydrology was	

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-06_UPL-1

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	Absolute	Dominant	Indicator	Dominance Test work	sheet:		
1	% Cover	species:	Status	Are OBL_FACW_or FAC		0	(A)
1				Total Number of Dom	 inant Species		
2.		<u> </u>		Across All Strata:	indire op cereo	1	(B)
3				Percent of Dominant S	Species That		(4.(5))
4		<u> </u>		Are OBL, FACW, or FAC	2:	0	(A/B)
5				Prevalence Index work	ksheet:		
o		······································		- <u>Total % Cove</u>	<u>r of:</u>	<u>Multiply</u>	<u>/ By:</u>
7				- OBL species	0	x 1 =	0
	0	= lotal Cov	er	FACW species	0	x 2 =	0
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft</u>)				FAC species	0	x 3 =	0
1.				- FACU species	100	x 4 =	400
2				- UPL species	0	x 5 =	0
3				- Column Totals	100	(A)	400 (B)
4				- Prevalence I	ndex = B/A =	4	
5				Hydrophytic Vegetatio	n Indicators:		
6				1- Rapid Test for	Hydrophytic \	/egetatio	n
7					r_{y} optig $> 50\%$	egetatio	
	0	= Total Cov	er	3 - Prevalence In	dev is < 3.01		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				J - Morphologica	dex is <u>s</u> 5.0	1 (Provide	supporting
1. <i>Dactylis glomerata</i>	100	Yes	FACU	- data in Remarks or on	i a senarate sh	(Frovide leet)	supporting
2				Problematic Hvd	rophytic Vege	tation ¹ (F	- xplain)
3.				¹ Indicators of hydric s	oil and wetlan	d hydrole	ogy must be
4.				present, unless distur	bed or probler	matic	589 11450 50
5.				Definitions of Vegetati	ion Strata:		
6.		· · · · ·		Tree – Woody plants 3	in. (7.6 cm) or	r more in	diameter at
7.				breast height (DBH), r	egardless of h	eight.	
8.				- Sapling/shrub - Wood	y plants less t	han 3 in.	DBH and
9.				greater than or equal	to 3.28 ft (1 m) tall.	
10				Herb – All herbaceous	(non-woody)	plants, re	egardless of
11				size, and woody plants	s less than 3.2	8 ft tall.	-
12				Woody vines – All woo	ody vines great	ter than 3	3.28 ft in
12		- Total Cov	or	height.			
Woody Vino Stratum (Blot size: 20 ft)	100	_ 10tal C0V	ei	Hydrophytic Vegetati	on Present? \	Yes	No 🖌
1				-			
2.				-			
3				-			
4				-			
	0	_= Total Cov	er				
Remarks: (Include photo numbers here or on a se	eparate sheet.)						
Fallow field. No positive indication of hydrophytic	vegetation was	observed (≥	≥50% of dor	minant species indexed a	as FAC– or dri	er).	
	0			,			

SOIL

Matri nches) Color (mois 0 - 6 10YR 2/2 - 16 10YR 2/2 - 16 10YR 3/2 5 - 20 10YR 2/2	k t) % 100	Redox Color (moist)	Feat				
Color (mois 0 - 6 10YR 2/2 - 16 10YR 2/2 - 16 10YR 3/2 5 - 20 10YR 2/2	t) <u>%</u> 100	Color (moist)		ures			
0 - 6 10YR 2/2 - 16 10YR 2/2 - 16 10YR 3/2 5 - 20 10YR 2/2	100		%	Type ¹	Loc ²	Texture	Remarks
5 - 16 10YR 2/2 5 - 16 10YR 3/2 5 - 20 10YR 2/2			-			Clay Loam	
5 - 16 10YR 3/2 5 - 20 10YR 2/2	50					Silty Clay Loam	
5 - 20 10YR 2/2	50					Silty Clay Loam	
	100		_			Silt Loam	
					·		
					·		
			_		·		
			_				
			_				
no: C = Concentration			Matr		Macked Cand Crai	nc 21 ocations DL - Dore	Lining M - Matrix
pe: C = Concentration,	D = Depletio	n, RIVI = Reduced	watr	IX, IVIS = 1	Masked Sand Grai	ns. ² Location: PL = Pore	rohlematic Hydric Soils ^{3.}
Histosol (A1)		Polyvalue Bel	ow Si	urface (S	8) (I RR R. MI RA 14	19B) and the last of the	
Histic Epipedon (A2)		Thin Dark Sur	face	(S9) (I RR	R. MI RA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histic (A3)		Loamy Mucky	/ Min	eral (F1)		Coast Prairie	e Redox (A16) (LRR K, L, R)
Hydrogen Sulfide (A4)		Loamy Glever	d Mat	rix (F2)		5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Stratified Lavers (A5)		Depleted Mat	rix (F	:3)		Dark Surfac	e (S7) (LRR K, L)
Depleted Below Dark ^c	urface (A11)	Redox Dark S	urfac	e (F6)		Polyvalue Be	elow Surface (S8) (LRR K, L)
Thick Dark Surface (A1	2)	Depleted Dar	k Sur	face (F7)		Thin Dark Si	urface (S9) (LRR K, L)
Sandy Mucky Mineral (<u>51)</u>	Bedox Depre	ssion	s (F8)		Iron-Manga	nese Masses (F12) (LRR K, L, R)
Sandy Gloved Matrix (() (1)		551011	5 (10)		Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy Gleyeu Matrix (3	94)					Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (SS)						Red Parent	Material (F21)
Stripped Matrix (S6)						Very Shallov	v Dark Surface (TF12)
Dark Surface (S7) (LRR	R, MLRA 149	B)				Other (Expla	ain in Remarks)
dicators of hydrophytic	vegetation a	nd wetland hydr	ology	v must be	e present, unless d	isturbed or problematic.	
trictive Layer (if observ	ed):					_	
Туре:		None			Hydric Soil Prese	nt?	Yes No 🟒
Depth (inches)	: <u> </u>						
positive indication of h	ydric solls w	as observed. The	crite	rion for f	nydric soil is not m	let. Soil significantly distu	irbed as a result of tilling.

Vegetation Photos



Soil Photos



Photo of Sample Plot East



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC





WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

2 to 5								
/GS84								
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)								

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🧹 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-07							
Remarks: (Explain alternative procedures he	Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is PSS. Area is wetland, all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Orift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) 	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): 17 Saturation Present? Yes No Depth (inches): 17	Wetland Hydrology Present? Yes No
(includes capillary fringe)	-
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), i Remarks: The criterion for wetland hydrology is met. A positive indication of wetland hydrology was obse	f available: erved (at least two secondary indicators).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-07_PSS-1

Jile Status Number of Dominant Species That 4 (A) 1. Accr negundo 20 Yes FAC 2. 20 Yes FAC 3. 20 Yes FAC 4 20 Yes FAC 5 20 Foral for foldex worksheet 80 1. Corrus racemosa 15 Yes FAC 2. Conters morrowil 15 Yes FAC 4. 20 FAC Species 45 x3 = 5. 2. Conters morrowil 15 Yes FAC 4. 0 Yes FAC Species 45 x3 = 125 6. 2. Conturs racemosa 2.5 Y 126 Y Y Yescies 40 Yes Yescies	Tree Christian (District) 20 ft)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
1. Acer negundo 20 Yes FAC Mer OBL, FACW, or FAC: Image: Comparison of the comparison	<u>iree Stratum</u> (Plot Size: <u>30 It</u>)	% Cover	Species?	Status	Number of Dominant S	Species That	4	(A)
2	1. Acer negundo	20	Yes	FAC	Are OBL, FACW, or FAC	:	·	
3.	2.				Total Number of Domi	nant Species	5	(B)
4.	3.				Across All Strata:			
5.	4.				Percent of Dominant S	pecies That	80	(A/B)
6.	5.				Are OBL, FACW, or FAC			
2 20 = Total Cover Multipoysy. Sapling/Shrub Stratum (Plot size: _15 ft_) 15 Yes FAC 1. Corrus racemosa 15 Yes FAC 2. Lonicera morrowii 15 Yes FAC 3. Acer negundo 10 Yes FAC 4. — — — — 5. — — — — 6. — — — — 7. _ — — — 40 = Total Cover — — — 40 = Total Cover — — — 15 Yes FAC — — 16. — — — — 7. _ 40 = Total Cover — — 15 Soldago gigantea 25 No FACW _ 2. Soldago canadensis 25 No FACW _ — 3. Symphyotrichum puniceum 10 No	6.				Prevalence Index work	sneet:	N. 4 147	D
20 = Total Cover Cover Cover species 23 X 1 = 23 1 Corrus racemosa 15 Yes FAC FAC species 45 x 3 = 135 1. Corrus racemosa 15 Yes FAC FAC species 40 x 4 = 160 2. Lonicer a morrowii 15 Yes FAC FAC species 40 x 4 = 160 4.	7.				<u>Iotal % Cover</u>	<u>OT:</u>		<u>ву:</u>
Sapling/Shrub Stratum (Plot size: _15 ft_)		20	= Total Cov	ver		25	x I = _	25
1. Cornus racemosa 15 Yes FAC FACU species 4/2 x 4 = 135 2. Loinicera morrowii 15 Yes FACU UPL species 40 x 4 = 160 3. Acer negundo 10 Yes FAC UPL species 0 x 5 = 0 4.	Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)		-		FACW species	85	x 2 = _	170
2. Lonicera morrowii 15 Yes FACU HPL species 0 x 4 = 100 3. Acer negundo 10 Yes FAC UPL species 0 x 5 = 0 4.	1. Cornus racemosa	15	Yes	FAC	FAC species	45	× 3 = _	135
3. Acer negundo 10 Yes FAC Off. species 0 YS = 00 4. 5.	2. Lonicera morrowii	15	Yes	FACU	FACU species	40	×4=	160
4.	3. Acer negundo	10	Yes	FAC	UPL species	0	x 5 = _	0
5.	4.					195	(A)	490 (B)
6.	5.				Prevalence Ir	1 dex = B/A =	2.5	
7.	6.				Hydrophytic Vegetation	n Indicators:		
40 = Total Cover ✓ 2 - Dominance Test is >50% Herb Stratum (Plot size: _5ft_) 3. Yes FACW 1. Solidago gigantea 85 Yes FACW 3. Symphystrichum puniceum 10 No OBL 1. Litrochium maculatum 10 No OBL 5. Lythrum salicaria 5 No OBL 6.	7.				1- Rapid Test for H	Hydrophytic V	egetation/	
Herb Stratum (Plot size:5f)		40	= Total Cov	ver	2 - Dominance Te	st is >50%		
1. Solidago gigantea 85 Yes FACW 2. Solidago canadensis 25 No FACU 3. Symphyotrichum puniceum 10 No OBL 4. Eutrochium maculatum 10 No OBL 5. Lythrum salicaria 5 No OBL 6.	Herb Stratum (Plot size: 5 ft)		_		3 - Prevalence Inc	lex is $\leq 3.0^1$		
2 Solidage canadensis 25 No FACU	1. Solidago gigantea	85	Yes	FACW	4 - Morphological	Adaptations	¹ (Provide	supporting
3. Symphyotrichum puniceum 10 No OBL Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic 5. Lythrum salicaria 5 No OBL Definitions of Vegetation Strata: 6.	2. Solidago canadensis	25	No	FACU	data in Remarks or on	a separate sh	ieet)	
4. Eutrochium maculatum 10 No OBL present, unless disturbed or problematic 5. Lythrum salicaria 5 No OBL Definitions of Vegetation Strata: 6.	3. Symphyotrichum puniceum	10	No	OBL	Problematic Hydr	opnytic vege	tation' (Ex	piain)
S. Lythrum salicaria 5 No OBL Definitions of Vegetation Strata: 6.	4. Eutrochium maculatum	10	No	OBL	indicators of hydric so	and wettan	a nyarolo; matic	gy must be
Generation of vegetation stratul. 6. 7. 8. 9. 10. 11. 12. 135 135 135 135 135 136 12. 137 138 139 131 132 133 134 135 135 136 137 138 139 131 132 133 134 135 136	5. Lythrum salicaria	5	No	OBL	Definitions of Vegetatio	on Strata	matic	
7. Inter woody plants 3 in (7) of this of middle industrie at the set of the industries of the	6.				Tree - Woody plants 3	(7.6 cm) or	r more in i	diameter at
8.	7.		·		breast height (DBH), re	gardless of h	eight.	alameter at
9	8.				Sapling/shrub - Woody	v plants less t	han 3 in. [OBH and
10.	9.		·		greater than or equal t	' o 3.28 ft (1 m) tall.	
11.	10.	·			Herb – All herbaceous	(non-woody)	plants, reg	gardless of
12	11.		·		size, and woody plants	less than 3.2	8 ft tall.	
135 = Total Cover height. Hydrophytic Vegetation Present? Yes _ ∧ No No 1.	12				Woody vines - All wood	dy vines great	ter than 3	28 ft in
Woody Vine Stratum (Plot size: _30 ft)		135	= Total Cov	/er	height.			
1.	Woody Vine Stratum (Plot size: 30 ft)		_		Hydrophytic Vegetatio	n Present?	res 🟒 N	lo
2. 3. 4. 0 = Total Cover Remarks: (Include photo numbers here or on a separate sheet.)	1.							
3.	2.		·					
4	3	·						
0 = Total Cover Remarks: (Include photo numbers here or on a separate sheet.)	4.	·	<u> </u>					
Remarks: (Include photo numbers here or on a separate sheet.)	···	0	= Total Cov	/er				
Remarks: (Include photo numbers here or on a separate sheet.)					<u></u>			
	Remarks: (Include photo numbers here or on a separat	e sheet.)						

SOIL

Profile Des	cription: (Describe	to the o	depth needed to o	docum	ent the i	indicato	r or confirm the	e absence of indicato	ors.)
Depth	Matrix		Redox	(Feati	ires		_		
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Te	exture	Remarks
0 - 6	10YR 3/1	95	7.5YR 3/4	5	C	PL	Silty C	Llay Loam	
6 - 12	10YR 3/1	90	7.5YR 5/8	10	C	M	Silty C	Clay Loam	
12 - 20	10YR 3/2	75	10YR 4/6	15	С	М	Silty C	Clay Loam	
¹ Type: C = 0	Concentration, D =	Deplet	ion, RM = Reduce	d Mati	rix, MS =	Masked	Sand Grains.	² Location: PL = Pore	e Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for P	roblematic Hydric Soils ³ :
Histoso	l (A1)		Polyvalue Be	elow S	urface (S	8) (LRR	R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic E	oipedon (A2)		Thin Dark Su	urface	(S9) (LRF	R, MLR	A 149B)	Coast Prairie	e Redox (A16) (LRR K. L. R)
Black H	istic (A3)		Loamy Mucl	ky Min	eral (F1)	(LRR K, I	L)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Ma	trix (F2)			Dark Surfac	e (S7) (LRR K, L)
Stratifie	d Layers (A5)	(\ 1	Depleted Ma	atrix (F	-3)			Polyvalue Be	elow Surface (S8) (LRR K, L)
Depiete	a Below Dark Surfa	ace (A I	 redox Dark Doploted Dark 	Suria rk Su	2e (F6) faco (E7)	`		Thin Dark Si	urface (S9) (LRR K, L)
Sandy M	Aucky Mineral (S1)		Depieted Da	assion)		Iron-Manga	nese Masses (F12) (LRR K, L, R)
Sandy (Sleved Matrix (SA)			233101	13 (10)			Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy F	$\frac{1}{2} \exp(1 \sqrt{5} + 1)$							Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Strinne	d Matrix (S6)							Red Parent	Material (F21)
Dark Si	urface (S7) (I RR R M		49B)					Very Shallov	v Dark Surface (TF12)
Durk Se								Other (Expla	ain in Remarks)
³ Indicators	of hydrophytic veg	etatior	n and wetland hyd	rolog	/ must b	e preser	nt, unless distur	bed or problematic.	
Restrictive	Layer (if observed):								
	Туре:		None			Hydric	Soil Present?		Yes 🟒 No
	Depth (inches):								
A positive i	ndication of hydric	soil wa	is observed. The o	riteric	on for hy	dric soil	is met.		

Vegetation Photos





Soil Photos



Photo of Sample Plot North



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mont	gomery County		Sampling Date: 2	.021-Sept-02
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>W-</u>	JMP-07_PUB-2
Investigator(s): Jerry	/ Peake, Steve	Spotts, Abi Light		Sec	tion, Township, Ra	nge: N/	4	
Landform (hillslope, te	errace, etc.):	Depression		Local relief	(concave, convex,	, none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.857425382	Long:	-74.4679280768	Datum: WGS84
Soil Map Unit Name:	Water, W						NWI classificat	ion: None
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)								
Are Vegetation,	Soil, Soil	or Hydrology	significant	tly disturbed?	Are "Normal (Circumst	ances" present?	Yes 🟒 No
	JUII,	or riyurology		problematic:	(ii needed, ex		y answers in Keinar	x3.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🯒 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-07							
Remarks: (Explain alternative procedur	Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is PUB. Area is wetland, all th	Covertype is PUB. Area is wetland, all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum c	of one is required; check	all that apply)		Secondary Indicators (minimum of two required)		
✓ Surface Water (A1) Water-Stained Leave ✓ High Water Table (A2) ✓ Aquatic Fauna (B13) ✓ Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Or Sediment Deposits (B2) Oxidized Rhizosphe Drift Deposits (B3) Presence of Reduce Algal Mat or Crust (B4) Recent Iron Reducti Iron Deposits (B5) Thin Muck Surface (Sparsely Vegetated Concave Surface (B8)			Roots (C3) oils (C6)			
Field Observations:						
Surface Water Present?	Yes 🟒 No	Depth (inches):	15	_		
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No		
Saturation Present?	Yes 🟒 No	Depth (inches):	0			
(includes capillary fringe)						
Describe Recorded Data (strea	m gauge, monitoring we	ell, aerial photos, previous insp	pections), if	available:		

Remarks:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (primary and secondary indicators were present).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-07_PUB-2

Tree Stratum (Plot size: 20 ft.)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
	% Cover	Species?	Status	Number of Dominant S	pecies That	4	(A)
1. <i>Picea glauca</i>	30	Yes	FACU	Are OBL, FACW, or FAC:			
2. <i>Salix alba</i>	20	Yes	FACW	Across All Strata:	iant Species	5	(B)
3. Acer negundo	10	No	FAC	Percent of Dominant St	nacias That		
4.		······································		Are OBL, FACW, or FAC:		80	(A/B)
5.		<u> </u>		Prevalence Index worksheet:			
6		·		- <u>Total % Cover of:</u> <u>Mu</u>		<u>Multiply</u>	By:
/				- OBL species 15 x 1		x 1 =	15
	60	= lotal Cov	er	FACW species	20	x 2 =	40
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	25	x 3 =	75
1. <u>Cornus racemosa</u>	10	Yes	FAC	- FACU species	30	x 4 =	120
2. <u>Acer negundo</u>	5	Yes	FAC	UPL species	0	x 5 =	0
3		·		Column Totals	90	(A)	250 (B)
4		·		Prevalence In	ndex = B/A =	2.8	· · · ·
5		·		Hydrophytic Vegetation Indicators:			
6		·		1- Rapid Test for H	lydrophytic V	egetation	ı
7				\sim 2 - Dominance Test is >50%			
	15	= Total Cov	er	\checkmark 3 - Prevalence Index is $\leq 3.0^{1}$			
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphological Adaptations ¹ (Provide supporting			
1. <i>Lemna minor</i>	15	Yes	OBL	data in Remarks or on a separate sheet)			
2				 Problematic Hvdrophytic Vegetation¹ (Explain) 			
3				¹ Indicators of hydric so	il and wetlan	d hydrolo	gy must be
4				present, unless disturb	ed or problei	matic	
5				Definitions of Vegetation	on Strata:		
6				Tree – Woody plants 3 i	n. (7.6 cm) or	more in	diameter at
7				breast height (DBH), re	gardless of h	eight.	
8				Sapling/shrub - Woody	plants less t	han 3 in. I	DBH and
9				greater than or equal to	o 3.28 ft (1 m) tall.	
10				Herb – All herbaceous (non-woody)	plants, re	gardless of
11				size, and woody plants	less than 3.2	8 ft tall.	_
12.				Woody vines – All wood	dy vines great	er than 3	.28 ft in
	15	= Total Cov	er	height.			<u> </u>
<u>Woody Vine Stratum (Plot size:30 ft</u>)		-		Hydrophytic Vegetatio	n Present?	′es 🟒 N	No 0/
1.							
2.		·					
3.		·					
4.							
	0	= Total Cov	er				
		-					

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00). A positive indication of hydrophytic vegetation was observed (Morphological Adaptations). All tree species present within the vicinity of the wetland boundary were rooted in upland areas experiencing different soil and/or hydrologic conditions.

SOIL

·		<u>% Type'</u>	Loc ² Texture	Remarks
		·		
	<u> </u>	·		
	<u> </u>			
		·		
	<u> </u>	·		
	<u> </u>			
e: C = Concentration, D = D	epletion, RM = Reduced	d Matrix, MS = I	Masked Sand Grains. ² l	Location: PL = Pore Lining, M = Matrix.
ric Soil Indicators:	Dobacaluo Pr	low Surface (S		Indicators for Problematic Hydric Soils ³ :
Histic Epipedon (A2)	Thin Dark Su	urface (S9) (LRR	R. MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histic (A3)	Loamy Muck	ky Mineral (F1) (LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Gleye	ed Matrix (F2)		Dark Surface (S7) (LRR K, L)
Stratified Layers (A5)	Depleted Ma	atrix (F3)		Polyvalue Below Surface (S8) (LRR K, L)
Thick Dark Surface (A12)	Peoleted Dark	Surface (F6) irk Surface (F7)		Thin Dark Surface (S9) (LRR K, L)
Sandy Mucky Mineral (S1)	Redox Depr	essions (F8)		Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Gleyed Matrix (S4)				Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Redox (S5)				Mesic Spodic (TA6) (MLKA 144A, 145, 149B) Red Parent Material (E21)
Stripped Matrix (S6)				Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, ML	RA 149B)			Other (Explain in Remarks)
icators of hydrophytic veget	ation and wetland hyd	Irology must be	present, unless disturb	ed or problematic.
trictive Layer (if observed):				
Type:	None	<u>.</u>	Hydric Soil Present?	Yes 🟒 No
Demails (im - 1).				

Hydrology Photos



Vegetation Photos





Photo of Sample Plot North Photo of Sample Plot East



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creek Solar Project			City/County: Sprakers, Montgomery County			Sampling Date: 2021-Sept-02		
Applicant/Owner: SunEast			State: NY			Sampling Point: W-JMP-07_UPL-1		
Investigator(s): Jerry Peake, Steve Spotts, Abi Light Section, Township, Range: NA								
Landform (hillslope, te	rrace, etc.):	Hillslope		Local relie	f (concave, convex,	none):	None	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.8572880002	Long:	-74.4682532447	Datum: WGS84
Soil Map Unit Name:	Fluvaquents	loamy, Fl					NWI classific	ation: None
Are climatic/hydrologic	c conditions o	n the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	o, explain in Remar	ˈks.)
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significan naturally	tly disturbed? problematic?	Are "Normal C (If needed, ex	ircumsi olain an	tances" present? y answers in Rema	Yes 🟒 No arks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No								
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No _	If yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of one	is required; check all th	at apply)	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf 	Water-St Aquatic Marl Dej Hydroge Oxidizec Presenco Recent lu Thin Mu gery (B7) Other (E face (B8)	 Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 				
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _ ⁄ Yes No _ ⁄ Yes No _ ⁄	Depth (inches): Depth (inches): Depth (inches):	Wetland Hydrology Present?	Yes No _		
Describe Recorded Data (stream gau	Jge, monitoring well, aer	rial photos, previous inspections), if	available:			
Remarks: The criterion for wetland hydrology	is not met. No positive ir	ndication of wetland hydrology was	observed.			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-07_UPL-1

Tree Stratum (Plot size: <u>30 ft</u>)	Absolute	solute Dominant Indicator		Dominance Test works	heet:		
	% Cover	Species?	Status	Are OBL_FACW_or_FAC		5	(A)
1. Acer negunao	50	res	FAC	Total Number of Domi	nant Species		
2		<u> </u>		Across All Strata:		/	(B)
		·		Percent of Dominant S	pecies That	71 /	(A/R)
5				Are OBL, FACW, or FAC	•	, ı.ə	(700)
6		<u> </u>		 Prevalence Index worksheet: 			
7.				<u>Total % Cover</u>	<u>of:</u>	<u>Multiply</u>	<u>By:</u>
	50	= Total Cov	er	OBL species	0	x 1 =	0
Sapling/Shrub Stratum (Plot size: 15 ft)		-		FACW species	0	x 2 =	0
1. Acer negundo	15	Yes	FAC	FAC species	125	x 3 =	375
2. Rhamnus cathartica	15	Yes	FAC	FACU species	90	x 4 =	360
3 Lonicera morrowii	15	Yes	FACU	UPL species	0	x 5 =	0
4. Cornus racemosa	10	No	FAC	Column Totals	215	(A)	735 (B)
5			1710	Prevalence Ir	ndex = B/A =	3.4	
6				Hydrophytic Vegetation	n Indicators:		
7				1- Rapid Test for H	-lydrophytic V	egetation	
/·	55	= Total Cov	or	2 - Dominance Test is >50%			
Harb Stratum (Plat size: 5 ft)				3 - Prevalence Inc	lex is $\leq 3.0^1$		
1 Solidaro canadensis	75	Voc	EACU	4 - Morphological	Adaptations ¹	(Provide	supporting
2 Futhamia graminifolia	20	Vec	FAC	— data in Remarks or on a separate sheet)			
3	20	103	TAC	Problematic Hydrophytic Vegetation ¹ (Explain)			plain)
3		<u> </u>		Indicators of hydric soil and wetland hydrology must be			gy must be
ч. 		<u> </u>		present, unless disturb	ed or probler	matic	
з. е		<u> </u>		Definitions of Vegetatio	on Strata:		
7		·		hreast beight (DBH) re	In. (7.6 CM) Or gardloss of b	oight	diameter at
/				Sapling/shrub Wood	v plants loss ti	han 3 in F	NBH and
o		·		greater than or equal t	o 3 28 ft (1 m) tall	Diranu
9				Herb – All herbaceous	(non-woody)	plants, reg	ardless of
10		·		size, and woody plants	less than 3.2	8 ft tall.	
12		·		Woody vines - All wood	dy vines great	er than 3.	28 ft in
12		- Total Cau		height.	, .		
	95		er	Hydrophytic Vegetatio	n Present?	∕es ∠ N	lo
<u>woody vine stratum</u> (Piot size: <u>30 π</u>)	1 5	Vee	EAC				
	15	res	FAC				
2.		·					
3		·					
4							
	15	= Total Cov	er	<u>]</u>			
Remarks: (Include photo numbers here or on a separate	e sheet.)						
A positive indication of hydrophytic vegetation was obse	erved (>50	0% of domin	ant species	indexed as OBL, FACW, c	or FAC).		

SOIL

Profile Desc	cription: (Describe Matrix	to the de	epth needed to d	ocum Foot	nent the	indicato	r or confirm the	absence of inc	licators.)	
(inches)	Color (moist)	06	Color (moist)	reat %	Type1	1002	Toxturo			Pomarks
		100		70	туре	100-	Texture			Remains
0-20	1011(4/5	100		—						
				—						
				—						
				—						
								<u> </u>		
								<u> </u>		
				_						
¹ Type: C = C	Concentration, D =	Depletic	n, RM = Reduced	Mat	rix, MS =	Masked	Sand Grains. 2	Location: PL =	Pore Lining	g, M = Matrix.
Hydric Soil	Indicators:							Indicators f	or Problem	natic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	ow S	urface (S	58) (LRR	R, MLRA 149B)	2 cm M	uck (A10) (L	.RR K, L, MLRA 149B)
Histic Ep	pipedon (A2)		Thin Dark Su	face	(S9) (LRF	R R, MLR	A 149B)	Coast P	rairie Redo	x (A16) (LRR K, L, R)
Black Hi	stic (A3)		Loamy Muck	/ Min	eral (F1)	(LRR K, I	_)	5 cm M	ucky Peat o	or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Ma	trix (F2)			Dark Su	rface (S7) (LRR K, L)
Stratifie	d Layers (A5)		Depleted Ma	rix (F	-3)			Polyvalı	ue Below Su	urface (S8) (LRR K, L)
Deplete	d Below Dark Surfa	ace (A11) Redox Dark S	urfac	te (F6)			Thin Da	rk Surface	(S9) (LRR K, L)
I NICK Da	ark Surface (ATZ)		Depleted Dat	K SUI	Tace (F7))		Iron-Ma	inganese M	lasses (F12) (LRR K, L, R)
Sandy iv			Redox Depre	ssior	IS (F8)			Piedmo	nt Floodpla	ain Soils (F19) (MLRA 149B)
Sandy G	leyed Matrix (S4)							Mesic S	podic (TA6)	(MLRA 144A, 145, 149B)
Sandy R	edox (SS)							Red Par	ent Materia	al (F21)
Stripped	d Matrix (S6)							Very Sh	allow Dark	Surface (TF12)
Dark Su	rface (S7) (LRR R, N	1LRA 149	9B)					Other (I	Explain in R	emarks)
³ Indicators	of hydrophytic veg	etation	and wetland hydi	olog	y must b	e preser	ıt, unless disturb	ed or problem	natic.	
Restrictive I	_ayer (if observed):									
	Type:		None			Hydric	Soil Present?	Yes _	No⁄	<u> </u>
	Depth (inches):					5				
Remarks:	<u> </u>					1				
No positive	indication of hydri	c soils w	as observed. The	e crite	erion for	hydric s	oil is not met.			

Vegetation Photos



Soil Photos



Photo of Sample Plot East



Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creek Solar Project			City/County: Sprakers, Montgomery County			Sampling Date: 2021-Sept-02		
Applicant/Owner: SunEast			State: NY			Sampling Point: W-JMP-07_UPL-2		
Investigator(s): Jerry Peake, Steve Spotts, Abi Light Section, Township, Range: NA								
Landform (hillslope, te	rrace, etc.):	Hillslope		Local relief	(concave, conve	k, none):	None	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.857371035	Long:	-74.4679212254	Datum: WGS84
Soil Map Unit Name:	Lansing silt l	oam, LaC					NWI classificat	ion: None
Are climatic/hydrologic	conditions o	n the site typical	for this time	of year?	Yes 🟒 No _	(If no	o, explain in Remarks	5.)
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significan naturally	tly disturbed? problematic?	Are "Normal (If needed, e	Circums xplain an	tances" present? y answers in Remarl	Yes 🟒 No ‹s.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No								
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No _	If yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of one	is required; check all th	at apply)	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf 	Water-St Aquatic Marl Dej Hydroge Oxidizec Presenco Recent lu Thin Mu gery (B7) Other (E face (B8)	 Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 				
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _ ⁄ Yes No _ ⁄ Yes No _ ⁄	Depth (inches): Depth (inches): Depth (inches):	Wetland Hydrology Present?	Yes No _		
Describe Recorded Data (stream gau	Jge, monitoring well, aer	rial photos, previous inspections), if	available:			
Remarks: The criterion for wetland hydrology	is not met. No positive ir	ndication of wetland hydrology was	observed.			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-07_UPL-2

Tree Stratum (Diet cize: 20 ft)	Absolute	Dominant	Indicator	Dominance Test works	heet:			
	% Cover	Species?	Status	Number of Dominant S	Species That	3	(A)	
1. Acer negundo	60	Yes	FAC	Are OBL, FACW, or FAC			(, ,	
2. <i>Picea glauca</i>	30	Yes	FACU	Total Number of Domi	nant Species	5	(B)	
3. Pinus strobus	15	No	FACU	Across All Strata:				
4. <u>Salix alba</u>	15	No	FACW	Are OBL, FACW, or FAC:60			(A/B)	
S		·		Prevalence Index worksheet:				
6				- <u>Total % Cover of:</u> <u>Mul</u>		<u>Multiply</u>	<u>By:</u>	
/	120	Tabal Ca		OBL species	0	x 1 =	0	
Cauling (Church Churchang (Distrained AF (t)	120	= 10tal Cov	er	FACW species	110	x 2 =	220	
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)	10		EA C	FAC species	85	x 3 =	255	
1. Acer negundo	10	res	FAC	FACU species	65	x 4 =	260	
	10	Yes	FACU	UPL species	15	x 5 =	75	
3				Column Totals	275	(A)	810 (B)	
4				Prevalence In	ndex = B/A =	2.9		
5				Hydrophytic Vegetation Indicators:				
6.		·		1- Rapid Test for Hydrophytic Vegetation				
7		·		— ∠ 2 - Dominance Test is >50%				
	20	= Total Cov	er	3 - Prevalence Inc				
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations	(Provide	supporting	
1. <i>Lysimachia nummularia</i>	80	Yes	FACW	- data in Remarks or on a separate sheet)				
2. <i>Geum canadense</i>	15	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)				
3. <i>Fragaria vesca</i>	15	No	UPL	¹ Indicators of hydric so	oil and wetlan	d hydrolo	gy must be	
4. Leersia virginica	10	No	FACW	present, unless disturb	oed or proble	matic		
5. <i>Taraxacum officinale</i>	10	No	FACU	Definitions of Vegetation	on Strata:			
6. <i>Symphyotrichum lanceolatum</i>	5	No	FACW	Tree – Woody plants 3	in. (7.6 cm) or	more in	diameter at	
7				breast height (DBH), re	gardless of h	eight.		
8				Sapling/shrub - Woody	y plants less t	han 3 in. I	OBH and	
9				greater than or equal t	:o 3.28 ft (1 m) tall.		
10				Herb – All herbaceous	(non-woody)	plants, re	gardless of	
11.				size, and woody plants	less than 3.2	8 ft tall.		
12.				Woody vines – All woo	dy vines great	ter than 3	.28 ft in	
	135	= Total Cov	er	height.				
Woody Vine Stratum (Plot size: <u>30 ft</u>)		-		Hydrophytic Vegetatic	on Present?	/es 🟒 N	lo	
1.								
2.								
3.								
4.								
· · · · · · · · · · · · · · · · · · ·	0	= Total Cov	er					
Remarks: (Include photo numbers here or on a separat	e sheet.)							

Remarks: (Include photo numbers here or on a separate sheet.) A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

SOIL

Profile Descri	ption: (Describe t	o the de	epth needed to de	ocum	ient the i	ndicator	or confirm the a	bsence of indicato	rs.)	
Depth	Matrix		Redox	Feat	ures	1 . 2	-			Demonde
(inches) 0 - 18	Color (moist) 10YR 4/3	% 100	Color (moist)	%	Туре	Loc ²	Silty Cla	Silty Clay Loam		Remarks
				-						
						—				
				_						
¹ Type: C = Co Hydric Soil In	ncentration, D = [dicators:	Depletio	n, RM = Reduced	Matr	rix, MS =	Masked	Sand Grains. ² L	ocation: PL = Pore Indicators for Pr	Lining, I oblema	M = Matrix. tic Hydric Soils ³ :
 Histosol (. Histic Epij Black Hist Hydroger Stratified Depleted Thick Dar Sandy Mu Sandy Gle Sandy Re Stripped Dark Surf alndicators of Restrictive La D 	A1) bedon (A2) ic (A3) s Sulfide (A4) Layers (A5) Below Dark Surfa k Surface (A12) icky Mineral (S1) eyed Matrix (S4) dox (S5) Matrix (S6) face (S7) (LRR R, M F hydrophytic vege yer (if observed): ype: epth (inches):	ce (A11) LRA 149 etation a	Polyvalue Bel Thin Dark Sur Loamy Mucky Loamy Gleyer Depleted Mat Depleted Dar Depleted Dar Redox Depre BB And wetland hydr None	ow S fface / Min d Mat crix (F urfac k Sur ssion olog)	urface (S (S9) (LRR eral (F1)) trix (F2) :3) :e (F6) face (F7) is (F8) / must be	8) (LRR F R, MLRA (LRR K, L e presen	k, MLRA 149B) (149B)) t, unless disturbe Soil Present?	2 cm Muck (/ Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark Su Iron-Mangar Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Expla	A10) (LR Redox (Peat or (S7) (LR low Sur rface (S bese Ma: bodplair (TA6) (I Material Dark Su in in Rer Yes	R K, L, MLRA 149B) (A16) (LRR K, L, R) Peat (S3) (LRR K, L, R) RR K, L) face (S8) (LRR K, L) 9) (LRR K, L) 9) (LRR K, L) sses (F12) (LRR K, L, R) n Soils (F19) (MLRA 149B) MLRA 144A, 145, 149B) (F21) urface (TF12) marks)
No positive ir	ndication of hydrio	c soils w	as observed. The	• crite	rion for l	hydric sc	il is not met.			

Vegetation Photos





Soil Photos



Photo of Sample Plot East



Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creek Solar Project		t City/	County: Sprakers, Mo	ntgomery County	Sampling Date: 20	021-Sept-03	
Applicant/Owner: S	unEast			State: NY	Sampling Point: W-J	MP-08_PEM-1	
Investigator(s): Jerry	v Peake, Steve	Spotts, Abi Light	S	ection, Township, Ra	nge: NA		
Landform (hillslope, te	rrace, etc.):	Flat	Local reli	ef (concave, convex,	none): Concave	Slope (%): 2 to 5	
Subregion (LRR or MLF	RA): LRR	L	La	t: 42.8547501709	Long: -74.4567482947	Datum: WGS84	
Soil Map Unit Name:	Madalin silty	/ clay loam, Ma			NWI classificati	on:	
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 si	gnificantly disturbed?	Are "Normal (Circumstances" present?	Yes No 🟒	
Are Vegetation,	Soil,	or Hydrology na	aturally problematic?	(If needed, ex	plain any answers in Remark	s.)	

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

Hydrophytic Vegetation Present?	Yes 🟒 No								
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No _						
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-08						
Remarks: (Explain alternative procedur	Remarks: (Explain alternative procedures here or in a separate report)								
Covertype is PEM. Area is wetland, all three wetland parameters are present. Circumstances are not normal due to mowing of vegetation.									
Circumstances are not normal due to agricultural activities.									

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)				
	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 				
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections),					
Remarks:					

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (at least two secondary indicators).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-08_PEM-1

Tara Churchard (Distrained 20.6.)	Absolute	Dominant	Indicator	Dominance Test worksheet:			
<u>Iree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover	Species?	Status	Number of Dominant S	pecies That	2	(Δ)
1.				Are OBL, FACW, or FAC:		Z	(A)
2.				Total Number of Domin	ant Species	2	(B)
3.				Across All Strata:			(2)
4.				Percent of Dominant Sp	pecies That	100	(A/B)
5.				Are OBL, FACW, or FAC:			
6.		·		Prevalence Index works	sheet:		_
7.				Iotal % Cover	<u>of:</u>	Multiply	<u>By:</u>
	0	= Total Cove	er	OBL species	60	× I =	60
Sapling/Shrub Stratum (Plot size: 15 ft)		-		FACW species	60	x 2 =	120
1.				FAC species	25	×3=	/5
2.				FACU species	5	x 4 =	20
3.				UPL species	10	x 5 =	50
4.				Column Totals	160	(A)	325 (B)
5.			<u> </u>	Prevalence In	dex = B/A =	2	
6.				Hydrophytic Vegetation	Indicators:		
7.		· · · ·		1- Rapid Test for H	lydrophytic \	/egetation	
	0	= Total Cove	er	2 - Dominance Tes	st is >50%		
Herb Stratum (Plot size: <u>5 ft</u>)		-		3 - Prevalence Ind	$ex is \leq 3.0^{\circ}$		
1. Phalaris arundinacea	60	Yes	FACW	4 - Morphological	Adaptations	(Provide :	supporting
2. Lythrum salicaria	30	Yes	OBL	Problematic Hydro	a separate si ophytic Vogo	tation1 (Ev	nlain)
3. Euthamia graminifolia	25	No	FAC	Problematic Hydro	l and wotlan		piani) Ty must bo
4. Symphyotrichum puniceum	15	No	OBL	present, unless disturbe	ed or proble	matic	sy must be
5. Scirpus cyperinus	15	No	OBL	Definitions of Vegetatio	n Strata:	induc	
6. Eragrostis curvula	10	No	UPL	Tree – Woody plants 3 i	n. (7.6 cm) oi	r more in a	diameter at
7. Phleum pratense	5	No	FACU	breast height (DBH), reg	gardless of h	eight.	
8.				Sapling/shrub - Woody	plants less t	han 3 in. D	OBH and
9.				greater than or equal to	o 3.28 ft (1 m) tall.	
10.				Herb – All herbaceous (non-woody)	plants, reg	gardless of
11.				size, and woody plants	less than 3.2	8 ft tall.	
12.				Woody vines - All wood	ly vines grea	ter than 3.	28 ft in
	160	= Total Cove	er	height.			
Woody Vine Stratum (Plot size: 30 ft)		-		Hydrophytic Vegetation	n Present?	res 🟒 N	lo
1.							
2.							
3.							
4.							
	0	= Total Cove	er				
Develope (Include a basis and the line of	-1	-					
Remarks: (Include photo numbers here or on a separate	sneet.)						
SOIL

Profile Des	cription: (Describe 1	to the	depth needed to a	docun	nent the	indicato	r or confirm the ab	sence of indicators.)
Depth	Matrix		Redox	Feat	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 17	10YR 4/1	85	7.5YR 4/6	15	C	М	Silty Clay	
17 - 20	7.5YR 4/1	60	7.5YR 4/6	40	С	М	Silty Clay	
				·				
				·				
				·				
1 Type: C = C	oncentration. D = l	 Deplet	ion. RM = Reduce	d Mat	rix. MS =	Masked	Sand Grains, 21 o	cation: PL = Pore Lining, M = Matrix
Hydric Soil	Indicators:	Depice		amat	11, 1113	mashed		Indicators for Problematic Hydric Soils ³
Histoso			Polyaluo P		urfaco (S			indicators for Problematic Hydric Solis
Listic Er	(AI)			urface			A 1400)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	stic (A2)				(59) (LRF	(R, WILK	A 149D)	Coast Prairie Redox (A16) (LRR K, L, R)
	Loamy Mucky Mineral (F1) (LRR K, L)					L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
Tyuruge Stratifio	d Lavers (A5)		Loany Gleye	eu Ma atriv (E3)			Dark Surface (S7) (LRR K, L)
Denlete	d Balow Dark Surfa	مرم (۵۱	1) Redox Dark	Surfa	(E6)			Polyvalue Below Surface (S8) (LRR K, L)
Depiete Thick Da	ark Surface (A12)		Depleted Da	ark Su	rface (F7	`		Thin Dark Surface (S9) (LRR K, L)
Sandy M	Aucky Mineral (S1)		Bedox Depr	ession	nace (F8)	,		Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy (Cloved Matrix (S4)			233101	13 (10)			Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy G	aday (CE)							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy R	edox (SS)							Red Parent Material (F21)
Stripped	d Matrix (S6)							Very Shallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, N	ILRA 1	49B)					Other (Explain in Remarks)
³ Indicators	of hydrophytic yeg	etatior	n and wetland hvo	Irolog	v must b	e preser	nt. unless disturbed	d or problematic.
Restrictive	aver (if observed).		· - · · · · · · · · · · · · · · · · · ·		,		-,	
Reserver			Nono			Hydric	Soil Prosont?	Ves (No
	Type.		NOTE			nyunc	Soli Fresent?	
	Depth (inches):			·				
Remarks:								

Vegetation Photos





Soil Photos



Photo of Sample Plot North



US Army Corps of Engineers

Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot East



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County: R	ural road,			Sampling Date:	2021-Sept-03		
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>N</u>	/-JMP-08_PSS-2		
Investigator(s): Jerry	Spotts, Abi Light		Sec	Section, Township, Range: NA						
Landform (hillslope, te	rrace, etc.):	Flat		Local relief	(concave, convex,	, none):	Concave	Slope (%): 2 to 5		
Subregion (LRR or MLR	RA): LRR	L		Lat:	42.8541868861	Long:	-74.4561727903	Datum: WGS84		
Soil Map Unit Name:	Madalin silty	r clay loam, Ma					NWI classifica	ation:		
Are climatic/hydrologic	c conditions o	n the site typical	for this time of	year?	Yes 🟒 No 🔄	(If no	, explain in Remarl	ks.)		
Are Vegetation, Are Vegetation,	Soil , Soil,	or Hydrology or Hydrology	significantly naturally pro	disturbed? oblematic?	Are "Normal ((If needed, ex	Circums plain an	tances" present? y answers in Rema	Yes No _ _ rks.)		

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

Hydrophytic Vegetation Present?	Yes 🟒 No		
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-08
Remarks: (Explain alternative procedur	es here or in a separate re	port)	
Covertype is PSS. Area is wetland, all th	ree wetland parameters a	re present. Circumstances are not normal due to ag	gricultural activities.
Circumstances are not normal due to n	nowing of vegetation.		

HYDROLOGY

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

Remarks:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (at least two secondary indicators).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-08_PSS-2

True Charles (Plat diana 20 ft.)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
<u>Iree Stratum (Plot size: _30 ft_)</u>	% Cover	Species?	Status	Number of Dominant S	pecies That	4	(Δ)
1.				Are OBL, FACW, or FAC	:		(~)
2.				Total Number of Domin	hant Species	5	(B)
3.		· ·		Across All Strata:			(5)
4.				Percent of Dominant S	pecies That	80	(A/B)
5.				Are OBL, FACW, or FAC			
6.				Prevalence Index work	sheet:		_
7.				Total % Cover	<u>of:</u>	Multiply	<u>By:</u>
	0	= Total Cov	er	OBL species	15	x 1 =	15
Sapling/Shrub Stratum (Plot size: 15 ft)		_		FACW species	65	x 2 =	130
1. Salix alba	30	Yes	FACW	FAC species	55	x 3 =	165
2. Cornus racemosa	20	Yes	FAC	FACU species	55	x 4 =	220
3				UPL species	0	x 5 =	0
4				Column Totals	190	(A)	530 (B)
5				Prevalence Ir	dex = B/A =	2.8	
6				Hydrophytic Vegetation	n Indicators:		
7				1- Rapid Test for H	۰ Hydrophytic	/egetatior	ı
···	50	= Total Cov	er	2 - Dominance Te	st is >50%		
Herb Stratum (Plot size: 5 ft)				3 - Prevalence Ind	lex is $\leq 3.0^1$		
1 Solidago canadensis	40	Yes	FACU	4 - Morphological	Adaptations	¹ (Provide	supporting
2 Futhamia graminifolia	35	Yes	FAC	data in Remarks or on	a separate sh	neet)	
3 Phalaris arundinacea	35	Ves	FACW	Problematic Hydr	ophytic Vege	tation ¹ (E)	kplain)
4 Lythrum salicaria		No	OBI	Indicators of hydric so	il and wetlan	d hydrolo	gy must be
5 Frigeron canadensis	10	No	FACU	present, unless disturb	ed or proble	matic	
Cralis dillanii			FACU	Definitions of Vegetatio	on Strata:		R
		<u> </u>	FACO	hreast height (DBH) re	IN. (7.6 CM) OI gardloss of b	r more in	diameter at
/				Sapling/shrub Wood	galuless of fi	eigi it. han 3 in 1	ARH and
o				greater than or equal t	$^{\circ}$ planes less t o 3.28 ft (1 m) tall.	
9				Herb – All herbaceous	(non-woody)	plants, re	gardless of
11				size, and woody plants	less than 3.2	8 ft tall.	8
12				Woody vines - All wood	dy vines grea	ter than 3	.28 ft in
12		- Tatal Cau		height.			
Weisster (Distributed 20 ft)	140		er	Hydrophytic Vegetatio	n Present?	∕es 🖌 N	lo
<u>woody vine Stratum</u> (Plot size: <u>30 ft</u>)						· · · · · · · · · · · · · · · · · · ·	
2.							
3							
4							
	0	= Total Cov	er				
Remarks: (Include photo numbers here or on a sepa	rate sheet.)						

SOIL

Color (moist) - 18 10YR 3/1 - 20 10YR 5/2	n/	Color (maint)	0/	Tur -1		Touturo	Dementio
- 18 10YR 3/1 - 20 10YR 5/2	<u>%</u>	Color (moist)	- <u>%</u>	Туре			Remarks
- 20 TUTR 5/2	<u> </u>	51R 4/6	<u> </u>				
	95	7.5YR 4/6			<u> </u>	silty Clay	
e: C = Concentration, D =	- Depleti	on, RM = Reduced	Mat	rix, MS =	Masked Sand Grains.	² Location: PL = Por	e Lining, M = Matrix.
ric Soil Indicators:		,				Indicators for F	Problematic Hydric Soils ³ :
Isuc Epipedon (A2) Ilack Histic (A3) Iydrogen Sulfide (A4) tratified Layers (A5) Depleted Below Dark Surf hick Dark Surface (A12) andy Mucky Mineral (S1) andy Gleyed Matrix (S4) andy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R,	face (A11) MLRA 14	Loamy Muck Loamy Gleye Depleted Ma]) ∠ Redox Dark : Depleted Da Redox Depre	y Mir d Ma trix (I Surfa rk Su essior	(59) (LRR eral (F1)) trix (F2) -3) ce (F6) face (F7) ns (F8)	(LRR K, L)	Coast Prair 5 cm Muck Dark Surfa Polyvalue E Thin Dark S Iron-Manga Piedmont F Mesic Spoc Red Parent Very Shallo Other (Expl	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) anese Masses (F12) (LRR K, L, R) Floodplain Soils (F19) (MLRA 149B dic (TA6) (MLRA 144A, 145, 149B) : Material (F21) w Dark Surface (TF12) lain in Remarks)
cators of hydrophytic ve	getation	and wetland hyd	rolog	y must be	e present, unless dist	urbed or problematio	Ξ.
rictive Layer (if observed):						
Туре:		None	_		Hydric Soil Present?		Yes 🟒 No
Depth (inches):			_				
sitve indication of right	- 3011 Wd3	s observed.					

Vegetation Photos





Soil Photos



Photo of Sample Plot South



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mon	tgomery County		Sampling Date:	2021-Sept-03
Applicant/Owner: S	unEast				State: NY		Sampling Point: \	N-JMP-08_UPL-1
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		See	ction, Township, Ra	nge: N	٩	
Landform (hillslope, te	rrace, etc.):	Flat		Local relie	f (concave, convex,	none):	None	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): LRR	L		Lat	42.8562628122	Long:	-74.4547016731	Datum: WGS84
Soil Map Unit Name:	Madalin silty	r clay loam, Ma					NWI classific	ation:
Are climatic/hydrologic	c conditions o	n the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	o, explain in Remai	rks.)
Are Vegetation, Are Vegetation,	Soil , Soil,	or Hydrology or Hydrology	significant naturally	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst plain an	tances" present? y answers in Rema	Yes No _ _ arks.)

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

Hydrophytic Vegetation Present?	Yes No									
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland? Yes	s No 🟒							
Wetland Hydrology Present?	Yes No	If yes, optional Wetland Site ID:								
Remarks: (Explain alternative procedures he	Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all three wetland parameters are present. Circumstances are not normal due to mowing of vegetation.										
Circumstances are not normal due to agricu	Iltural activities.									

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all th	nat apply)	Secondary Indicators (minimum o	of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Surface 	Water-S Aquatic Marl De Hydroge Oxidized Presenc Recent I Thin ML agery (B7) Other (E	itained Leaves (B9) Fauna (B13) posits (B15) en Sulfide Odor (C1) d Rhizospheres on Living Roots (C3) ee of Reduced Iron (C4) Iron Reduction in Tilled Soils (C6) uck Surface (C7) Explain in Remarks)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D²) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	nagery (C9) 1)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)				
Describe Recorded Data (stream ga	iuge, monitoring well, ae	rial photos, previous inspections), if	available:	
Remarks:	vic not mot			
The childron for wetland hydrology	is not met.			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-08_UPL-1

Tree Stratum (Plat size) 20 ft	Absolute	Dominant	Indicator	Dominance Test worksh	neet:		
<u>iree Stratum</u> (Piot size: <u>30 it</u>)	% Cover	Species?	Status	Number of Dominant S	pecies That	0	(Δ)
1.				Are OBL, FACW, or FAC:			(~)
2.				Total Number of Domin	ant Species	1	(B)
3.				Across All Strata:			
4.				Percent of Dominant Sp	pecies That	0	(A/B)
5.				Are OBL, FACW, or FAC:			
6.				Prevalence Index works	sheet:		_
7.				Iotal % Cover	<u>or:</u>	<u>Multiply</u>	<u>By:</u>
	0	= Total Cove	r		0	x I =	0
Sapling/Shrub Stratum (Plot size:15 ft)		-		FACW species	20	x 2 = _	40
1.				FAC species	0	x 3 =	0
2.				FACU species	90	x 4 =	360
3.				UPL species	0	x 5 = _	0
4.				Column Totals	110	(A)	400 (B)
5				Prevalence In	dex = B/A =	3.6	
6				Hydrophytic Vegetation	Indicators:		
7				1- Rapid Test for H	lydrophytic V	'egetatior	ı
/·	0	= Total Cove	r	2 - Dominance Tes	st is > 50%		
Herb Stratum (Plot size: 5 ft)	0			3 - Prevalence Ind	ex is $\leq 3.0^1$		
1 Solidaro canadensis	70	Voc	FACIL	4 - Morphological	Adaptations ¹	(Provide	supporting
2 Symphyotrichum poyag angliag	20		EA CW/	data in Remarks or on a	a separate sh	eet)	
2. Symphyourchain novae-angliae	10		FACIL	Problematic Hydro	ophytic Vege	tation ¹ (E>	(plain)
	10			¹ Indicators of hydric soi	l and wetlan	d hydrolo	gy must be
	10		FACU	present, unless disturb	ed or probler	natic	
S				Definitions of Vegetatio	n Strata:		
6				Tree – Woody plants 3 i	n. (7.6 cm) or	more in	diameter at
/				breast height (DBH), reg	gardless of h	eight.	
8				Sapling/snrub - woody	plants less ti	nan 3 in. i Vtali	JBH and
9				Herb All borbacoous (non woody)	plants ro	ardless of
10				size and woody plants	less than 3.2	8 ft tall	gai diess of
11				Woody vines – All wood	lv vines great	er than 3	28 ft in
12				height.	ly vines great		.2010111
	110	= Total Cove	r		Drocont?		
Woody Vine Stratum (Plot size: <u>30 ft</u>)						les <u>v</u> 1	NU
1							
2							
3							
4							
	0	= Total Cove	r				
Remarks: (Include photo numbers here or on a separate	e sheet.)						

SOIL

	Color (moist) 10YR 3/2 10YR 4/3 10YR 4/2	% 100 95 70	Color (moist) 10YR 4/6 10YR 4/6	<u>%</u> 5 30	Type1 C C	Loc ²	Text Silty Cla Silty Cla	y Loam	Remarks
0 - 5 - 17 7 - 20 	10YR 3/2 10YR 4/3 10YR 4/2	100 95 70	10YR 4/6 10YR 4/6	5 30	 		Silty Cla Silty Cla	y Loam y Loam	
5 - 17 7 - 20	10YR 4/3 10YR 4/2	95 70	10YR 4/6 10YR 4/6	5 30	C C	<u>M</u>	Silty Cla	y Loam	
7 - 20	10YR 4/2	70	10YR 4/6	30	С		A Silty Clay		
		_				IVI	Silty	Clay	
						<u> </u>			
						<u> </u>			
						<u> </u>			
	ncontration D -	Doplatic	DM - Doducor		W MC -		Craine 21	acation: DL - Dara Lining	M - Matrix
pe: C = Co	ncentration, D =	Depietic	on, RM = Reduced	a Matr	IX, IVIS =	wasked Sand	a Grains. ² L0	ocation: PL = Pore Lining	g, IVI = Maurix.
Uistosol (/			Dobasoluo Do		urfaco (C		DA 140D)	indicators for Problem	latic Hydric Solis ³ :
Histic Enir	(A2)		Polyvalue Be	rfaco	(co) (I DD		.KA 149D))R)	2 cm Muck (A10) (L	.RR K, L, MLRA 149B)
Black Hist	ic (A3)		Loamy Muck	v Min	eral (F1)	(IRR K I)	, og	Coast Prairie Redo	x (A16) (LRR K, L, R)
Hydrogen	Sulfide (A4)		Loamy Gleve	ed Mat	trix (F2)	(, _)		5 cm Mucky Peat c	r Peat (S3) (LRR K, L, R)
Stratified	Layers (A5)		Depleted Ma	atrix (F	3)			Dark Surface (S7) (
Depleted	Below Dark Surfa	ace (A11) Redox Dark !	Surfac	e (F6)			Polyvalue Below Si	(20) (LKK K, L)
Thick Darl	k Surface (A12)		Depleted Da	rk Sur	face (F7)			Iron-Manganese M	(33) (LKK K, L) Lasses (F12) (I RR K I R)
Sandy Mu	cky Mineral (S1)		Redox Depre	ession	s (F8)			Piedmont Floodpla	ain Soils (F19) (MI RA 149B)
Sandy Gle	eyed Matrix (S4)							Mesic Spodic (TA6)	(MLRA 144A, 145, 149B)
Sandy Red	dox (S5)							Red Parent Materi	al (F21)
Stripped I	Matrix (S6)							Very Shallow Dark	Surface (TF12)
Dark Surf	ace (S7) (LRR R, N	ILRA 14	9B)					Other (Explain in R	emarks)
dicators of	hydrophytic veg	etation	and wetland hyd	rology	/ must be	e present, un	less disturbe	d or problematic.	
strictive La	yer (if observed):								
Ту	/pe:		None			Hydric Soil	Present?	Yes _	No 🟒
D	epth (inches):			-					
positive ir	idication of hydri	ic soils v	vas observed.						

Vegetation Photos





Soil Photos

Photo of Sample Plot East



Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t City	y/County: Spra	akers, Montg	omery County		Sampling Date:	2021-Sept-03	
Applicant/Owner: S	unEast				State: NY	S	Sampling Point: \	W-JMP-08_UPL-2	
Investigator(s): Jerry	/ Peake, Steve	Spotts, Abi Light		Secti	on, Township, Ra	nge: NA			
Landform (hillslope, te	errace, etc.):	Flat		Local relief (concave, convex,	none):	None	Slope (%): 2 to	5
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.8538352308	Long:	-74.4562141258	Datum: WGS84	ł
Soil Map Unit Name:	Madalin silt	/ clay loam, Ma					NWI classific	ation:	
Are climatic/hydrologi	c conditions o	n the site typical for	r this time of ye	ear?	Yes 🟒 No 🔄	(lf no,	explain in Rema	rks.)	
Are Vegetation 🟒,	Soil 🟒,	or Hydrology	significantly di	isturbed?	Are "Normal C	ircumsta	ances" present?	Yes No 🟒	
Are Vegetation,	Soil,	or Hydrology	naturally prob	olematic?	(If needed, exp	olain any	answers in Rem	arks.)	

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

Hydrophytic Vegetation Present?	Yes No 🟒						
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒				
Wetland Hydrology Present?	Yes No 🟒	If yes, optional Wetland Site ID:					
Remarks: (Explain alternative procedures her	re or in a separate report)					
Covertype is UPL. Area is upland, not all three wetland parameters are present. Circumstances are not normal due to agricultural activities.							
Circumstances are not normal due to mowin	g of vegetation.						

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all th	at apply)	Secondary Indicators (minimum o	<u>of two required)</u>
Surface Water (A1) Water-1 High Water Table (A2) Aquation Saturation (A3) Marl Diversity Surface Water Marks (B1) Hydroge Sediment Deposits (B2) Oxidized Drift Deposits (B3) Presen Algal Mat or Crust (B4) Recent Iron Deposits (B5) Thin M Inundation Visible on Aerial Imagery (B7) Other (Charles Concave Surface (B8)		tained Leaves (B9) Fauna (B13) posits (B15) en Sulfide Odor (C1) d Rhizospheres on Living Roots (C3) e of Reduced Iron (C4) ron Reduction in Tilled Soils (C6) ck Surface (C7) xplain in Remarks)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D²) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	nagery (C9) 1)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):	_	
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring well, aer	rial photos, previous inspections), if	available:	
The criterion for wetland hydrology	/ is not met.			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-08_UPL-2

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test works	neet:		
	% Cover	Species?	Status	Number of Dominant S	pecies That	1	(A)
1	. <u></u>			Are OBL, FACW, or FAC			
2	·			Total Number of Domir	ant Species	2	(B)
3				Across All Strata:	: .		·
4				Percent of Dominant S	becies That	50	(A/B)
5				Browslonce Index works	hoot:		
6				Total % Cover	of:	Multiply	D.e
7.				OBL species	0	<u>v 1 –</u>	<u>ру.</u> О
	0	= Total Cove	er		15	×1- ×2-	20
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)		_		FACW species	60	× 2	190
1.				FAC species	60	x 5	240
2.	·			ACU species	60	x 4 =	240
3.				OPL species	0	x 5 = _	0
4.		·			135	(A) _	450 (B)
5.				Prevalence In	dex = B/A =	3.3	
6.				Hydrophytic Vegetation	Indicators:		
7.				1- Rapid Test for H	lydrophytic V	egetation	
	0	= Total Cove	er	2 - Dominance Te	st is > 50%		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)		-		3 - Prevalence Ind	$ex is \leq 3.0^{\circ}$	(D)	
1. Solidago canadensis	50	Yes	FACU	4 - Morphological	Adaptations'	(Provide	supporting
2. Euthamia graminifolia	35	Yes	FAC	Droblomatic Hydr	a separate sri	eel)	(nlain)
3. Cornus racemosa	25	No	FAC	11pdicators of bydric co	il and wotland	d bydrolo	(pidili) ay must ba
4. Symphyotrichum novae-angliae	15	No	FACW	nresent unless disturb	ed or probler	natic	gy must be
5. Galium mollugo	10	No	FACU	Definitions of Vegetation	n Strata	natic	
6.				Tree – Woody plants 3 i	n (7.6 cm) or	more in	diameter at
7.	·			breast height (DBH), re	gardless of h	eight.	
8.	·			Sapling/shrub - Woody	plants less th	nan 3 in. [OBH and
9.	·			greater than or equal t	o 3.28 ft (1 m) tall.	
10.	·			Herb – All herbaceous (non-woody)	plants, re	gardless of
11.	·			size, and woody plants	less than 3.2	8 ft tall.	
12				Woody vines - All wood	ly vines great	er than 3	.28 ft in
	135	= Total Cove	r	height.			
Woody Vine Stratum (Plot size: 30 ft)	-155	-		Hydrophytic Vegetatio	n Present?	′es N	lo 🖌
1							
2	·						
3	·						
···	0	= Total Cove	or .				
	0	- 10tal Cove					
Remarks: (Include photo numbers here or on a separat	e sheet.)						

SOIL

10YR 3/2 10YR 3/2 10YR 4/2	100 98 75	10YR 4/6 10YR 4/6	2 25	С С	M 	Silty Cla Silty Cla Silty	y Loam y Loam Clay	
10YR 3/2 10YR 4/2	98 75	10YR 4/6 10YR 4/6	2 25	С С	<u>M</u> 	Silty Cla Silty	y Loam Clay	
10YR 4/2	 	10YR 4/6	25			Silty	Clay	
			- <u> </u>					
	 		·					
ncentration, D =	Depletic	on, RM = Reduced	d Matr	ix, MS =	Masked Sand	Grains. ² Lo	ocation: PL = Pore Lining, M = Matrix.	
dicators:	- 1						Indicators for Problematic Hydric Soils ³	:
A1)		Polyvalue Be	elow S	urface (S	8) (LRR R, ML	RA 149B)	2 cm Muck (A10) (LRR K. L. MLRA 14	9B)
edon (A2)		Thin Dark Su	urface	(S9) (LRR	R, MLRA 149	В)	Coast Prairie Redox (A16) (LRR K, L,	R)
c (A3)		Loamy Muck	ky Min	eral (F1)	(LRR K, L)		5 cm Mucky Peat or Peat (S3) (LRR H	, (, L, R)
Sulfide (A4)		Loamy Gleye	ed Ma	trix (F2)			Dark Surface (S7) (LRR K, L)	
_ayers (A5)		Depleted Ma	atrix (F	3)			Polyvalue Below Surface (S8) (LRR K	(, L)
Below Dark Surfa	ace (ATT) Redox Dark	Surfac	e (F6)			Thin Dark Surface (S9) (LRR K, L)	
Surface (ATZ)		Depieted Da	rk Sur	Tace (F7)			Iron-Manganese Masses (F12) (LRR	K, L, R)
cky Mineral (ST)		Redox Depre	ession	IS (F8)			Piedmont Floodplain Soils (F19) (MI	RA 1498
yed Matrix (S4)							Mesic Spodic (TA6) (MLRA 144A, 14 5	5, 149B)
10X (55)							Red Parent Material (F21)	
							Very Shallow Dark Surface (TF12)	
ace (S7) (LRR R, N	/ILKA 14	9B)					Other (Explain in Remarks)	
hydrophytic veg	etation	and wetland hyd	rology	/ must be	e present, unl	ess disturbe	d or problematic.	
/er (if observed)	:							
pe:		None	_		Hydric Soil I	Present?	Yes No⁄_	
epth (inches):								
dication of hydri	ic soils v	vas observed.						
	ncentration, D = dicators: A1) bedon (A2) ic (A3) Sulfide (A4) Layers (A5) Below Dark Surface (A12) cky Mineral (S1) yed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M hydrophytic veg yer (if observed): rpe: epth (inches):	ncentration, D = Depletic dicators: A1) bedon (A2) ic (A3) Sulfide (A4) Layers (A5) Below Dark Surface (A11 c Surface (A12) cky Mineral (S1) yed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, MLRA 14' hydrophytic vegetation yer (if observed): rpe: epth (inches):	ncentration, D = Depletion, RM = Reduced dicators: A1)Polyvalue Be pedon (A2)Thin Dark Su ic (A3)Loamy Muck Sulfide (A4)Loamy Gleye Layers (A5)Depleted Ma Below Dark Surface (A11) Redox Dark is Surface (A12)Depleted Da cky Mineral (S1)Redox Depro- yed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, MLRA 149B) hydrophytic vegetation and wetland hyd yer (if observed): rpe:None epth (inches): dication of hydric soils was observed.	hteentration, D = Depletion, RM = Reduced Matricators: A1) Polyvalue Below S Vedon (A2) Thin Dark Surface ic (A3) Loamy Mucky Min Sulfide (A4) Loamy Gleyed Matrix (FB Below Dark Surface (A11) Redox Dark Surface Surface (A12) Depleted Dark Surface cky Mineral (S1) Redox Depression yed Matrix (S4) dox (S5) Matrix (S6)	hteentration, D = Depletion, RM = Reduced Matrix, MS = dicators: A1) Polyvalue Below Surface (S) pedon (A2) Thin Dark Surface (S9) (LRR ic (A3) Loamy Mucky Mineral (F1) Sulfide (A4) Loamy Gleyed Matrix (F2) Layers (A5) Depleted Matrix (F3) Below Dark Surface (A11) Redox Dark Surface (F6) ck Surface (A12) Depleted Dark Surface (F7) cky Mineral (S1) Redox Depressions (F8) yed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, MLRA 149B) hydrophytic vegetation and wetland hydrology must be yer (if observed): rpe: None epth (inches): dication of hydric soils was observed.	hteentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand dicators: A1) Polyvalue Below Surface (S8) (LRR R, MLR bedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149 ic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Sulfide (A4) Loamy Gleyed Matrix (F2) Layers (A5) Depleted Matrix (F3) Below Dark Surface (A11) Redox Dark Surface (F6) k Surface (A12) Depleted Dark Surface (F7) cky Mineral (S1) Redox Depressions (F8) yed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, MLRA 149B) hydrophytic vegetation and wetland hydrology must be present, unl yer (if observed): rpe: None epth (inches): Hydric Soils was observed.	Incentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. 2L dicators:	Incentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. Idicators: Indicators for Problematic Hydric Soils? Xi)Polyvalue Below Surface (S8) (LRR R, MLRA 149B)Coast Prairie Redox (A16) (LRR K, L) sedon (A2)Thin Dark Surface (S9) (LRR R, MLRA 149B)Coast Prairie Redox (A16) (LRR K, L) Sulfide (A4)Loamy Mucky Mineral (F1) (LRR K, L)S cm Mucky Peat or Peat (S3) (LR R, L) Sulfide (A4)Depleted Matrix (F2)S cm Mucky Peat or Peat (S3) (LR R, L) ayers (A5)Depleted Matrix (F3)Polyvalue Below Surface (S8) (LR R, L) Surface (A12)Depleted Dark Surface (F7)Thin Dark Surface (S9) (LR R, L) Cky Mineral (S1)Redox Depressions (F8)PiedMatrian Soils (F19) (MI yed (S5)

Vegetation Photos





Soil Photos



Photo of Sample Plot North



Photo of Sample Plot East



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t (:ity/County:	Sprakers, Mont	gomery County		Sampling Date:	2021-Sept-08
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>W</u>	/-JMP-11_PFO-1
Investigator(s): Jerry	Peake, Carso	n Rowe, Abi Light		Sec	tion, Township, Ra	nge: N	٩	
Landform (hillslope, te	rrace, etc.):	Depression		Local relie	f (concave, convex,	none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.8554035009	Long:	-74.5178000812	Datum: WGS84
Soil Map Unit Name:	Churchville :	silty clay loam, Ch	В				NWI classifica	ation: None
Are climatic/hydrologic	c conditions o	n the site typical f	or this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Remarl	ks.)
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	_ significant _ naturally	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst plain an	tances" present? y answers in Rema	Yes 🟒 No rks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No		
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🯒 No
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-11
Remarks: (Explain alternative procedure	es here or in a separate rep	ort)	
Covertype is PFO. Area is wetland, all th	ree wetland parameters are	e present.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum o	f one is required; check al	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave 	Wate Aqua Marl Hydru Oxidi Prese Receu Thin Imagery (B7) Othe Surface (B8)	r-Stained Leaves (B9) tic Fauna (B13) Deposits (B15) ogen Sulfide Odor (C1) zed Rhizospheres on Living Roots (C ence of Reduced Iron (C4) nt Iron Reduction in Tilled Soils (C6) Muck Surface (C7) r (Explain in Remarks)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):		
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No .	
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)				
Describe Recorded Data (strear	n gauge, monitoring well,	aerial photos, previous inspections),	, if available:	
Remarks:				
The criterion for wetland hydro	logy is met. A positive indi	cation of wetland hydrology was ob	served (primary and secondary indicators were pre	sent)

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-11_PFO-1

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test worksh	neet:		
	% Cover	Species?	Status	Number of Dominant S	pecies That	3	(A)
1. <i>Tilia americana</i>	60	Yes	FACU	Are OBL, FACW, or FAC:			
2. <i>Fraxinus americana</i>	30	Yes	FACU	Iotal Number of Domin	ant Species	6	(B)
3. <i>Carpinus caroliniana</i>	25	No	FAC	ACTOSS All Stratd.	acias That		
4. <u>Carya ovata</u>	15	No	FACU	Are OBL, FACW, or FAC:	Decles mat	50	(A/B)
۶	·			Prevalence Index works	sheet:		
7	·			Total % Cover	<u>of:</u>	<u>Multiply</u>	<u>By:</u>
7	120	- Total Cau		OBL species	0	x 1 =	0
	130		er	FACW species	105	x 2 =	210
<u>Sapling/Snrub Stratum</u> (Plot size: <u>15 ft</u>)	10		EA C	FAC species	45	x 3 =	135
	10	Yes	FAC	FACU species	110	x 4 =	440
2. Fraxinus americana	5	Yes	FACU	UPL species	0	x 5 =	0
3.	·	<u> </u>		Column Totals	260	(A)	785 (B)
4	·			Prevalence In	dex = B/A =	3	
5	·			Hydrophytic Vegetation	Indicators:		·
6	·			1- Rapid Test for H	lydrophytic V	/egetatior	ı
7				2 - Dominance Tes	st is $> 50\%$		
	15	= Total Cov	er	✓ 3 - Prevalence Inde	ex is $\leq 3.0^1$		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations	¹ (Provide	supporting
1. Impatiens capensis	60	Yes	FACW	data in Remarks or on a	a separate sh	neet)	supporting
2. <i>Pilea pumila</i>	20	No	FACW	Problematic Hydro	ophytic Vege	tation ¹ (E:	(plain)
3. <i>Solidago gigantea</i>	15	No	FACW	¹ Indicators of hydric soi	il and wetlan	d hydrolo	gy must be
4. Dryopteris carthusiana	10	No	FACW	present, unless disturbe	ed or problei	matic	05
5				Definitions of Vegetatio	n Strata:		
6				Tree – Woody plants 3 i	n. (7.6 cm) oi	r more in	diameter at
7				breast height (DBH), reg	gardless of h	eight.	
8				Sapling/shrub - Woody	plants less t	han 3 in. I	DBH and
9.				greater than or equal to	o 3.28 ft (1 m) tall.	
10.				Herb – All herbaceous (non-woody)	plants, re	gardless of
11.				size, and woody plants	less than 3.2	8 ft tall.	
12.				Woody vines – All wood	ly vines great	ter than 3	.28 ft in
	105	= Total Cov	er	height.			
Woody Vine Stratum (Plot size: <u>30 ft</u>)		-		Hydrophytic Vegetation	n Present?	res 🟒 🛚	No
1. Vitis riparia	10	Yes	FAC				
2.							
3.							
4.	·			·			
	10	= Total Cov	er				
Pomarka (Include photo numbers here of an a second							
A positive indication of hydrophytic vegetation was obs	erved (Pre	valence Ind	ex is $\leq 3.00^{\circ}$).			

SOIL

Profile Des	cription: (Describe	to the o	depth needed to o	docum	nent the i	indicator	or confirm the at	osence of indicate	ors.)
Depth	Matrix		Redox	< Feat	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Textu	ure	Remarks
0 - 8	10YR 2/1	97	10YR 4/4	3	C	Μ	Silt Lo	bam	
8 - 16	10YR 2/2	85	7.5YR 4/6	15	C	М	Silty Clay	/ Loam	
16 - 20	10YR 2/2	80	5YR 5/8	20	С	Μ	Silty Clay	/ Loam	
¹ Type: C = 0	Concentration, D =	Deplet	ion, RM = Reduce	d Mat	rix, MS =	Masked S	Sand Grains. ² Lo	ocation: PL = Pore	e Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for P	roblematic Hydric Soils ³ :
Histoso	l (A1)		Polyvalue Be	elow S	urface (S	58) (LRR R	, MLRA 149B)	2 cm Muck	(A10) (I RR K. I., MI RA 149B)
Histic E	pipedon (A2)		Thin Dark Su	urface	(S9) (LRF	R, MLRA	149B)	Coast Prairi	e Redox (A16) (I RR K. L. R)
Black H	istic (A3)		Loamy Mucl	ky Min	eral (F1)	(LRR K, L)		5 cm Mucky	/ Peat or Peat (S3) (LRR K. L. R)
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Ma	trix (F2)			Dark Surfac	e (S7) (LRR K, L)
Stratifie	ed Layers (A5)		Depleted Ma	atrix (I	-3)			Polyvalue B	elow Surface (S8) (LRR K, L)
Deplete	ed Below Dark Surfa	ace (A1	1) ✓ Redox Dark	Surfa	ce (F6)	、 、		Thin Dark S	urface (S9) (LRR K, L)
Thick D	Ark Surface (ATZ)		Depieted Da	ark Sui)		Iron-Manga	nese Masses (F12) (LRR K, L, R)
Sandy (Cloved Matrix (S4)			855101	IS (FO)			Piedmont F	loodplain Soils (F19) (MLRA 149B)
Sandy C	Jieyeu Matrix (54)							Mesic Spod	ic (TA6) (MLRA 144A, 145, 149B)
Sanuy n	d Matrix (S6)							Red Parent	Material (F21)
Suippe	u Matrix (50)		40P)					Very Shallov	w Dark Surface (TF12)
Dark St			490)					Other (Expl	ain in Remarks)
³ Indicators	of hydrophytic veg	etatior	n and wetland hyd	Irolog	y must b	e present	, unless disturbe	d or problematic	
Restrictive	Layer (if observed):								
	Туре:		None	-		Hydric S	Soil Present?		Yes 🟒 No
	Depth (inches):								
Remarks:									
A positive i	ndication of hydric	soil wa	as observed. The o	riterio	on for hy	dric soil is	s met.		

Vegetation Photos





Soil Photos



Photo of Sample Plot East



Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t City/Count	t y: Sprakers, Montgo	omery County	Sampling Date:	2021-Sept-08
Applicant/Owner: S	unEast			State: NY	Sampling Point: W	-JMP-11_UPL-1
Investigator(s): Jerry	Peake, Carso	n Rowe, Abi Light	Secti	on, Township, Ra	inge: NA	
Landform (hillslope, te	rrace, etc.):	Hillslope	Local relief (concave, convex	, none): None	Slope (%): 5 to 10
Subregion (LRR or MLF	RA): LRR	L	Lat:	42.855504	Long: -74.517719	Datum: WGS84
Soil Map Unit Name:	Churchville	silty loam, ChB			NWI classifica	tion: None
Are climatic/hydrologic	conditions o	n the site typical for this tin	ne of year?	Yes 🟒 No 🔄	(If no, explain in Remark	(S.)
Are Vegetation,	Soil,	or Hydrology signification	antly disturbed?	Are "Normal (Circumstances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology natural	ly problematic?	(If needed, ex	plain any answers in Remai	rks.)

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

Hydrophytic Vegetation Present?	Yes No 🟒		
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Wetland Hydrology Present?	Yes No 🟒	If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures her	e or in a separate report)	
Covertype is UPL. Area is upland, not all three	e wetland parameters are	e present.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one	is required; check all th	at apply)	Secondary Indicators (minimum of	<u>f two required)</u>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf 	Water-St Aquatic Marl Dej Hydroge Oxidizec Presence Recent li Thin Mu gery (B7) Other (E face (B8)	tained Leaves (B9) Fauna (B13) posits (B15) en Sulfide Odor (C1) d Rhizospheres on Living Roots (C3) e of Reduced Iron (C4) ron Reduction in Tilled Soils (C6) ck Surface (C7) xplain in Remarks)	 Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No _ ∠ Yes No _ ∠ Yes No _ ∠	Depth (inches): Depth (inches): Depth (inches):	Wetland Hydrology Present?	Yes No _
Describe Recorded Data (stream gau	Jge, monitoring well, aer	rial photos, previous inspections), if	available:	
Remarks: The criterion for wetland hydrology	is not met. No positive ir	ndication of wetland hydrology was	observed.	

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-11_UPL-1

Tree Stratum (Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test works	sheet: Species That		
1 Tilia americana	60	Yes	FACU	Are OBL, FACW, or FAC:		4	(A)
2 Fraxinus americana	45	Yes	FACU	Total Number of Dominant Species		0	(D)
3 Acer saccharum	35	Ves	FACU	Across All Strata:		9	(B)
4. Ulmus americana	15	No	FACW	Percent of Dominant Species That 44.4 Are OBL. FACW. or FAC:		(A/B)	
5				Prevalence Index worksheet:			
6				Total % Cover of:		Multiply By:	
7				OBL species	0	x 1 =	0
	155	= Total Cov	er	FACW species	15	x 2 =	30
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	65	x 3 =	195
1. Acer saccharum	10	Yes	FACU	FACU species	170	x 4 =	680
2. <i>Carpinus caroliniana</i>	5	Yes	FAC	UPL species	0	x 5 =	0
3				Column Totals	250	(A) –	905 (B)
4		<u> </u>		Prevalence	pdex = B/A =	36	505 (D)
5							
6.				Hydrophytic Vegetatio	n Indicators:		
7.				1- Rapid Test for	Hydrophytic V	egetation/	
	15	= Total Cov	er	2 - Dominance Te			
Herb Stratum (Plot size: 5 ft)		-		3 - Prevalence Inc	dex is $\leq 3.0^1$		
1. Toxicodendron radicans	40	Yes	FAC	4 - Morphological Adaptations ¹ (Provide supporting			
2. Alliaria petiolata	15	Yes	FACU	data in Remarks or on a separate sheet)			
3. Ostrva virginiana	5	No	FACU	Problematic Hydrophytic Vegetation' (Explain)			
4				indicators of hydric soil and wetland hydrology must be			
5		·		Definitions of Vegetation Strata:			
S		·		Deminions of Vegetation Strata:			
7		<u> </u>		Iree – Woody plants 3 in. (7.6 cm) or more in diameter at			
/		·		Sapling/chrub Woody plants loss than 2 in DPU and			
8		·		greater than or equal to 3.28 ft (1 m) tall			
9		·		Herb – All berbaceous (non-woody) plants, regardless of			
10				size and woody plants	s less than 3.2	8 ft tall	
11				Woody vines - All woo	dy vines great	ter than 3	28 ft in
12				height.	ay mes great	ter than 5.	2010111
	60 = Total Cover				(a.a		
Woody Vine Stratum (Plot size: <u>30 ft</u>)				Hydrophytic vegetatio	on Present?	res N	0_7
1. <i>Toxicodendron radicans</i>	15	Yes	FAC				
2. <i>Vitis riparia</i>	5	Yes	FAC				
3							
4							
	20	= Total Cov	er				
Remarks: (Include photo numbers here or on a separat	e sheet.)						

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC− or drier).

SOIL

Depth Matrix Redox Features (inches) Color (moist) % Type¹ Loc² Texture Remark 0 - 7 10YR 3/3 100	s				
Color (moist) % Color (moist) % Type* Loc* Texture Remark 0 - 7 10YR 3/3 100	s				
0 - 7 10YR 3/3 100 Silt Loam 7 - 20 10YR 4/3 95 7.5YR 4/6 5 C M Silty Clay Loam					
7 - 20 10YR 4/3 95 7.5YR 4/6 5 C M Silty Clay Loam					
· · · · · · · · · · · · · · · · · · ·					
True C - Concentration D - Depletion DM - Deduced Matrix MC - Medical Canal Craine - 21 cention: DL - Deve Lining M - Matrix					
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix.					
Hydric Soil Indicators: Indicators for Problematic Hydric Soils	*				
Histosol (A1)Polyvalue Below Surface (S8) (LRR R, MLRA 149B)2 cm Muck (A10) (LRR K, L, MLRA 14	19B)				
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 (AS) Depieted Matrix (FS) Polyvalue Below Surface (S8) (LRR I	<, L)				
Thick Dark Surface (A12) Redox Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L)					
Sandy Mucky Mineral (S1) Redox Depressions (F8)	K, L, R)				
Sandy Meeky Mineral (S1) Redox Depressions (R0) Piedmont Floodplain Soils (F19) (M	LRA 149B)				
Sandy Bodox (SE)Mesic Spodic (TA6) (MLRA 144A, 14	5, 149B)				
Sandy Red X (SS) Red Parent Material (F21)					
Dark Surface (S7) (LKR R, MLKA 149B) Other (Explain in Remarks)					
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.					
Restrictive Layer (if observed):					
Type: None Hydric Soil Present? Yes No 🗸					
Denth (inches):					
No positive indication of hydric soils was observed. The criterion for hydric soil is not met.					

Vegetation Photos




Soil Photos



Photo of Sample Plot North



Photo of Sample Plot East



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t	City/County:	Sprakers, Mon	gomery County		Sampling Date: 2	2021-Sept-	16
Applicant/Owner: S	unEast				State: NY		Sampling Point: W-	-JMP-12_PE	M-1
Investigator(s): Jerry	v Peake, Steve	Spotts, Abi Light		See	tion, Township, Ra	nge: N/	Ą		
Landform (hillslope, te	rrace, etc.):	Flat		Local relie	f (concave, convex,	none):	Concave	Slope	(%): 1 to 3
Subregion (LRR or MLF	RA): LRR	L		Lat	42.8536415265	Long:	-74.5202245244	Datum	: WGS84
Soil Map Unit Name:	Darien silt lo	oam, DaB					NWI classificat	tion: None	e
Are climatic/hydrologic	c conditions o	n the site typical	for this time	of year?	Yes No	∠ (lf no,	explain in Remarks	.)	
Are Vegetation, Are Vegetation,	Soil _∠ , Soil,	or Hydrology or Hydrology	significan naturally	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst plain an	ances" present? y answers in Remar	Yes ˈks.)	_ No 🟒

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

Yes 🟒 No										
Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🧹 No								
Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-12								
Remarks: (Explain alternative procedures here or in a separate report)										
Covertype is PEM. Area is wetland, all three wetland parameters are present. Circumstances are not normal due to agricultural activities.										
	Yes No Yes No Yes No re or in a separate report wetland parameters are p	Yes _ No Is the Sampled Area within a Wetland? Yes _ No If yes, optional Wetland Site ID: Yee or in a separate report) wetland parameters are present. Circumstances are not normal due to a								

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of	one is required; check all	<u>that apply)</u>		Secondary Indicators (minimum of two required)		
✓ Surface Water (A1) Water-Stained Leaves (B9) ✓ High Water Table (A2) Aquatic Fauna (B13) ✓ Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) ✓ Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)				 Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations:						
Surface Water Present?	Yes 🟒 No	Depth (inches):	4	_		
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No		
Saturation Present?	Yes 🟒 No	Depth (inches):	0			
(includes capillary fringe)						
Describe Recorded Data (stream	gauge, monitoring well, a	aerial photos, previous ins	pections), if	available:		

Remarks:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (primary and secondary indicators were present).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-12_PEM-1

Tree Christian (Distring, 20 ft.)	Absolute	Dominant	Indicator	Dominance Test works	heet:			
<u>Tree stratum</u> (Plot size: <u>30 It</u>)	% Cover	Species?	Status	Number of Dominant S	Species That	2	(A)	
1				Total Number of Domi	nant Snecies			
2.				Across All Strata:	nanc species	3	(B)	
5				Percent of Dominant S	pecies That	66.7	(A (D)	
4. 5				Are OBL, FACW, or FAC	:	00.7	(A/B)	
5				 Prevalence Index work 	sheet:			
7				- <u>Total % Cover</u>	of:	<u>Multiply </u>	<u>By:</u>	
/·		- Total Cav	~~	- OBL species	0	x 1 =	0	
Contine (Church Streeture (Distring 15 ft)	0	_ TOLAI COV	er	FACW species	155	x 2 =	310	
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)	-		FAC	FAC species	15	x 3 =	45	
1. Cornus racemosa		Yes	FAC	FACU species	35	x 4 =	140	
2. Lonicera morrowii	5	Yes	FACU	UPL species	0	x 5 =	0	
3				Column Totals	205	(A)	495 (B)	
4				Prevalence Ir	ndex = B/A =	2.4		
5.				Hydrophytic Vegetation	n Indicators:			
b				1- Rapid Test for I	- Hydrophytic V	egetation		
7				2 - Dominance Test is >50%				
	10	= lotal Cov	er	3 - Prevalence Inc	lex is $\leq 3.0^1$			
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations ¹	(Provide s	supporting	
1. Phalaris arundinacea	100	Yes	FACW	— data in Remarks or on a separate sheet)				
2. <u>Symphyotrichum lanceolatum</u>	30	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)				
3. <i>Solidago canadensis</i>	30	No	FACU	1Indicators of hydric soil and wetland hydrology must be				
4. <i>Poa palustris</i>	25	No	FACW	present, unless disturb	ed or probler	natic		
5. <i>Euthamia graminifolia</i>	10	No	FAC	Definitions of Vegetation	on Strata:			
6				Tree – Woody plants 3	in. (7.6 cm) or	more in c	liameter at	
7				breast height (DBH), re	gardless of h	eight.		
8				Sapling/shrub - Woody	/ plants less tl	han 3 in. D	BH and	
9				greater than or equal t	o 3.28 ft (1 m) tall.		
10				Herb – All herbaceous	(non-woody)	plants, reg	ardless of	
11.				size, and woody plants	less than 3.2	8 ft tall.		
12.				Woody vines – All woo	dy vines great	er than 3.	28 ft in	
	195	= Total Cov	er	height.				
Woody Vine Stratum (Plot size: <u>30 ft</u>)		-		Hydrophytic Vegetatic	n Present?	′es 🟒 N	0	
1.								
2.				-				
3.				-				
4.				-				
	0	= Total Cov	er	-				
Remarks: (Include photo numbers here or on a separat	e sheet)							

ep ι.)

Fallow field. A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

SOIL

Profile Des	cription: (Describe	to the	depth needed to o	docun	nent the	indicator	or confirm the	absence of indicat	ors.)
Depth	Matrix		Redox	<pre>< Feat</pre>	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Те	xture	Remarks
0 - 12	10YR 3/2	98	7.5YR 4/6	2	С	М	Silty C	lay Loam	
12 - 16	10YR 3/1	95	7.5R 4/6	5	С	М	Silty C	lay Loam	
16 - 20	10YR 3/1	60	7.5YR 4/6	20	С	М	Clav	y Loam	
16 - 20	10YR 4/2	20	-				Cla	v Loam	
						· <u> </u>			
						·			
				·		·			
-				·		·			
-						·			
-									
-									
-									
¹ Type: C = 0	Concentration, D =	Deplet	ion, RM = Reduce	d Mat	rix, MS =	Masked	Sand Grains.	² Location: PL = Por	e Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for F	Problematic Hydric Soils ³ :
Histoso	l (A1)		Polyvalue Be	elow S	urface (S	58) (LRR F	₹, MLRA 149B)	2 cm Muck	(A10) (I RR K. J. MI RA 149R)
Histic E	pipedon (A2)		Thin Dark Տւ	urface	(S9) (LRF	R R, MLRA	\ 149B)	Coast Prair	ie Redox (A16) (I RR K R)
Black H	istic (A3)		Loamy Mucl	ky Mir	eral (F1)	(LRR K, L	.)	5 cm Mucky	v Peat or Peat (S3) (I RR K R)
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Ma	trix (F2)			Dark Surfac	re(S7) (I RR K 1)
Stratifie	d Layers (A5)		Depleted Ma	atrix (F3)			Polyvalue B	Relow Surface (S8) (LRR K 1)
Deplete	d Below Dark Surfa	ace (A1	1)_✓ Redox Dark	Surfa	ce (F6)			Thin Dark S	Surface (S9) (LRR K L)
Thick D	ark Surface (A12)		Depleted Da	ark Su	rface (F7)		Iron-Manga	anese Masses (F12) (I RR K R)
Sandy N	/lucky Mineral (S1)		Redox Depr	essior	ns (F8)			lion-wange Piedmont F	Eloodalain Soils (F19) (MI RA 149B)
Sandy O	Gleyed Matrix (S4)							Mesic Spod	lic (TA6) (MI BA 144A 145 149B)
Sandy F	Redox (S5)							Mesic Spou	Matorial (E21)
Strippe	d Matrix (S6)							Keu Falelit	W Dark Surface (TE12)
Dark Su	Irface (S7) (LRR R, M	ILRA 1	49B)					Very Shallo	lain in Domarks)
								_v Other (Expl	
³ Indicators	of hydrophytic veg	etatior	n and wetland hyd	Irolog	y must b	e presen	t, unless distur	bed or problematic	
Restrictive	Layer (if observed):								
	Туре:		None	_		Hydric	Soil Present?		Yes 🟒 No
	Depth (inches):								
Remarks:									
A positive i	ndication of hydric	soil wa	as observed. Soil s	ignific	antly dis	sturbed a	s a result of till	ing. Soil disturbed,	although not significantly enough to
obscure hy	dric soil indicators,	as a re	esult of historical f	filling	or gradir	ng.		-	
-									
ĺ									

Soil Photos



Photo of Sample Plot North



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot East



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creek	k Solar Projec	t	City/County:	Sprakers, Mon	tgomery County		Sampling Date:	2021-Sept-1	7
Applicant/Owner: Su	unEast				State: NY		Sampling Point: <u>W</u>	V-JMP-12_PE	M-101
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		See	tion, Township, Ra	nge: N	A		
Landform (hillslope, ter	rrace, etc.):	Depression		Local relie	f (concave, convex	, none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLR	A): LRR	L		Lat	42.8528068542	Long:	-74.5140297786	Datum:	WGS84
Soil Map Unit Name:	Darien silt lo	am, DaB					NWI classifica	ation: None	
Are climatic/hydrologic	conditions o	n the site typical	for this time	of year?	Yes No	🖊 (lf no,	explain in Remark	s.)	
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significan naturally	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst plain an	tances" present? y answers in Rema	Yes Irks.)	No 🟒

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-12							
Remarks: (Explain alternative procedures here or in a separate report)										
Covertype is PEM. Area is wetland, all three precipitation 2 days prior to data plot collec	wetland parameters are p	oresent. Circumstances are not normal due to mowing	; of vegetation. Heavy							

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of or	<u>ne is required; check all</u>	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Surface 	Water- Aquati Marl D Hydro Oxidiz Preser Recen Thin M agery (B7) Other Irface (B8)	 Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 			
Field Observations:					
Surface Water Present?	Yes No 🟒	Depth (inches):			
Water Table Present?	Yes 🟒 No	Depth (inches): 8	Wetland Hydrology Present? Yes No		
Saturation Present?	Yes No 🟒	Depth (inches):			
(includes capillary fringe)					
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous inspections),	if available:		
Remarks:					
The criterion for wetland hydrolog	y is met. A positive indic	ation of wetland hydrology was obs	erved (primary and secondary indicators were present)		

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-12_PEM-101

	Absolute	Dominant	Indicator	Dominance Test works	heet:		
<u>Iree Stratum</u> (Plot size: <u>_30 ft</u>)	% Cover	Species?	Status	Number of Dominant S	pecies That	2	(A)
2.				Total Number of Domin	nant Species	2	(B)
3				Across All Strata: Percent of Dominant S	necies That		
4.				Are OBL, FACW, or FAC	:	100	(A/B)
5				 Prevalence Index works 	sheet:		
0				- <u>Total % Cover</u>	<u>of:</u>	<u>Multiply</u>	<u>By:</u>
/				– OBL species	20	x 1 =	20
Carling (Church Churchurg (Distring) 45 ft)	0	= Total Cov	er	FACW species	130	x 2 =	260
Sapling/Shrub Stratum (Plot size:15 ft)				FAC species	0	x 3 =	0
1				- FACU species	0	x 4 =	0
2.				– UPL species	0	x 5 =	0
3				– Column Totals	150	(A)	280 (B)
4.				Prevalence Ir	ndex = B/A =	1.9	
5				- Hydrophytic Vegetation	n Indicators:		
6.				- 🖌 1- Rapid Test for H	-lydrophytic V	/egetation	n
7				- 🖌 2 - Dominance Te	st is >50%	0	
	0	= Total Cov	er	✓ 3 - Prevalence Ind	lex is $\leq 3.0^1$		
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations	¹ (Provide	supporting
1. <i>Phalaris arundinacea</i>	100	Yes	FACW	 data in Remarks or on a separate sheet) 			
2. <i>Cinna arundinacea</i>	30	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)			
3. <i>Typha latifolia</i>	20	No	OBL	- ¹ Indicators of hydric so	il and wetlan	d hydrolo	gy must be
4				present, unless disturb	ed or problei	matic	
5				Definitions of Vegetation	on Strata:		
6				Tree – Woody plants 3	in. (7.6 cm) oı	r more in	diameter at
7				breast height (DBH), re	gardless of h	eight.	
8				Sapling/shrub - Woody	plants less t	han 3 in. [OBH and
9				greater than or equal t	o 3.28 ft (1 m) tall.	
10				Herb – All herbaceous	(non-woody)	plants, re	gardless of
11				size, and woody plants	less than 3.2	8 ft tall.	
12.				Woody vines – All wood	dy vines great	ter than 3	.28 ft in
	150	= Total Cov	er	neight.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)		_		Hydrophytic Vegetatio	n Present?	res 🟒 N	lo
1							
2.							
3.				=			
4.				-			
	0	= Total Cov	er				
Demonstrat (Include abote avanteers here en en e							

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00). A positive indication of hydrophytic vegetation was observed (Rapid Test for Hydrophytic Vegetation).

SOIL

Profile Desc	cription: (Describe	to the d	epth needed to d	ocun	nent the i	indicator	or confirm the a	bsence of indicate	ors.)
Depth	Matrix		Redox	Feat	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Text	ure	Remarks
0 - 12	10YR 2/2	100					Silt Lo	oam	
12 - 20	10YR 3/1	95	7.5YR 3/4	5	С	Μ	Silty Clay	y Loam	
				·					
				· —					
				· —					
				·					
				· —		<u> </u>			
¹ Type: C = C	Concentration, D =	Depletic	n, RM = Reduced	Mat	rix, MS =	Masked	Sand Grains. ² Lo	ocation: PL = Pore	e Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for P	Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Bel	ow S	urface (S	58) (LRR F	R, MLRA 149B)	2 cm Muck	(A10) (LRR K, L, MLRA 149B)
Histic Ep	pipedon (A2)		Thin Dark Su	face	(S9) (LRF	R, MLR	A 149B)	Coast Prairi	ie Redox (A16) (LRR K, L, R)
Black Hi	stic (A3)		Loamy Mucky	/ Mir	eral (F1)	(LRR K, L	.)	5 cm Mucky	y Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Ma	trix (F2)			Dark Surfac	ce (S7) (LRR K, L)
Stratifie	d Layers (A5) d Bolow Dark Surf	200 (11	Depleted Ma	trix (I	-3) -a (F6)			Polyvalue B	elow Surface (S8) (LRR K, L)
Depiete	u Below Dark Suri-	ace (ATT	Doploted Dark 3	le Cu	faco (E7)	`		Thin Dark S	ourface (S9) (LRR K, L)
Sandy M	Auchy Mineral (S1)		Depieteu Dai	r Su	nace (F7))		Iron-Manga	nese Masses (F12) (LRR K, L, R)
Sandy (Cloved Matrix (S4)			55101	15 (FO)			Piedmont F	loodplain Soils (F19) (MLRA 149B)
Sandy G	aday (SE)							Mesic Spod	ic (TA6) (MLRA 144A, 145, 149B)
Sanuy R	euux (SS)							Red Parent	Material (F21)
Surpped	J Matrix (S6)							Very Shallov	w Dark Surface (TF12)
Dark Su	rtace (S7) (LRR R, N	VILKA 14	9B)					Other (Expl	ain in Remarks)
³ Indicators	of hydrophytic veg	getation	and wetland hydr	olog	y must b	e presen	t, unless disturbe	ed or problematic	
Restrictive I	ayer (if observed)	:							
	Type:		None			Hydric	Soil Present?		Yes 🟒 No
	Depth (inches):			-		5			
Remarks:	<u> </u>					I			
A positive ir	ndication of hydric	soil was	observed. The cr	iterio	on for hy	dric soil i	s met.		
1									
1									



Soil Photos



Photo of Sample Plot East



Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Project		City/County:	Sprakers, Mon	tgomery County		Sampling Date:	2021-Sept-08
Applicant/Owner: Si	unEast				State: NY		Sampling Point: V	V-JMP-12_PSS-1
Investigator(s): Jerry	Peake, Carso	n Rowe, Abi Light		See	ction, Township, Ra	nge: N/	4	
Landform (hillslope, te	rrace, etc.):	Channel		Local relie	f (concave, convex,	none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLR	RA): LRR I	-		Lat	42.8539892095	Long:	-74.5175271351	Datum: WGS84
Soil Map Unit Name:	Madalin silty	clay loam, Ma					NWI classifica	ation: None
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)								
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significant naturally p	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst	ances" present? y answers in Rema	Yes 🟒 No Irks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🧹 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-12							
Remarks: (Explain alternative procedures here or in a separate report)										
Covertype is PSS. Area is wetland, all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of o	one is required; check all t	<u>hat apply)</u>		Secondary Indicators (minimum of two required)				
 Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Marl Deposits (B15) Water Marks (B1) Sediment Deposits (B2) Orift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) 			Roots (C3) oils (C6)	 				
Field Observations:								
Surface Water Present?	Yes No 🟒	Depth (inches):		_				
Water Table Present?	Yes 🟒 No	Depth (inches):	9	Wetland Hydrology Present? Yes No				
Saturation Present?	Yes 🟒 No	Depth (inches):	0					
(includes capillary fringe)								
Describe Recorded Data (stream Remarks: The criterion for wetland hydrolo	gauge, monitoring well, a	erial photos, previous insp	y was obse	available: 				

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-12_PSS-1

Tree Stratum (Plot size: <u>30 ft</u>)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
1 Papulus daltaidas	% Cover	Species?		Are OBL FACW or FAC	pecies inat	6	(A)
1. <u>Populus denoldes</u>	20	Voc		Total Number of Domin	nant Species		
		163	FACI	Across All Strata:		6	(B)
Δ		·		Percent of Dominant Species That		100	(A/B)
5.				Are OBL, FACW, or FAC	:		(///////
6.				Prevalence Index work	sheet:		
7.				Total % Cover	<u>of:</u>	Multiply	<u>By:</u>
	60	= Total Cov	er	OBL species	30	x1=	30
Sapling/Shrub Stratum (Plot size: 15 ft)		-		FACW species	160	x2=	320
1. Cornus amomum	50	Yes	FACW	FAC species	110	x3= -	330
2. Rhamnus cathartica	35	Yes	FAC	FACU species	0	×4=	0
3. Populus deltoides	10	No	FAC	Column Totala	0	x 5 = _	0
4.					300	(A) _	680 (B)
5.					1dex = B/A =		
6.				Hydrophytic Vegetation	n Indicators:		
7.				1- Rapid Test for H	-lydrophytic V	egetation/	1
	95	= Total Cov	er	2 - Dominance Te	st is >50%		
Herb Stratum (Plot size: <u>5 ft</u>)		-		3 - Prevalence Ind	lex is $\leq 3.0^{\circ}$		
1. Onoclea sensibilis	75	Yes	FACW	4 - Morphological	Adaptations	(Provide	supporting
2. Symphyotrichum puniceum	30	Yes	OBL	Problematic Hydr	a separate sin	tation1 (Ex	(nlain)
3. Sisyrinchium angustifolium	15	No	FAC	1Indicators of hydric so	il and wetlan	d bydrolo	gy must be
4. Lysimachia nummularia	15	No	FACW	present, unless disturb	ed or probler	matic	gy must be
5. Equisetum arvense	10	No	FAC	Definitions of Vegetation	on Strata:		
6.				Tree – Woody plants 3	in. (7.6 cm) or	r more in	diameter at
7.				breast height (DBH), re	gardless of h	eight.	
8.				Sapling/shrub - Woody	/ plants less tl	han 3 in. [OBH and
9.				greater than or equal t	o 3.28 ft (1 m) tall.	
10.				Herb – All herbaceous	(non-woody)	plants, reg	gardless of
11.				size, and woody plants	less than 3.2	8 ft tall.	
12.				Woody vines – All wood	dy vines great	ter than 3	.28 ft in
	145	= Total Cov	er	height.			
Woody Vine Stratum (Plot size: <u>30 ft</u>)		-		Hydrophytic Vegetatio	n Present?	/es 🟒 N	lo
1.							
2.							
3.							
4.		·					
	0	= Total Cov	er				
Remarks: (Include photo numbers here or on a separate	e sheet.)	-					

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

SOIL

Profile Des	ription: (Describe to Matrix	o the d	epth needed to d	locun (Eost	nent the i	indicator or	confirm the a	absence of indicate	ors.)
(inches)	Color (moist)	06	Color (moist)	06	Type1	1002	Τον	turo	Remarks
		07							
0 - 20	1018 3/1	97	7.518 5/6	<u> </u>			Silty Cla		
		·							
		·							
		·							
-									
-									
-									
-									
-									-
$^{1}Type: C = C$)enleti	on RM = Reduced	- <u> </u>	rix MS =	Masked Sar	nd Grains ²	ocation: PL = Pore	Lining M = Matrix
	Indicators:	- cpictl	and the second	a ivial					rohlematic Hydric Soile ³
Histoso	(Δ1)		Polyvalue Be		Surface (S				
Histic Fr	vinedon (A2)		Thin Dark Su	Irfaco			19R)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Hi	stic (A3)		Loamy Muck	v Mir	neral (F1)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Coast Prairi	e Redox (A16) (LRR K, L, R)
Hvdroge	n Sulfide (A4)		Loamy Gleve	d Ma	trix (F2)	(211111, 2)		5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Stratifie	d Lavers (A5)		Depleted Ma	atrix (F3)			Dark Surfac	e (S7) (LRR K, L)
Deplete	d Below Dark Surfa	ce (A11) < Redox Dark	Surfa	ce (F6)			Polyvalue B	elow Surface (S8) (LRR K, L)
Thick Da	ark Surface (A12)		Depleted Da	rk Su	rface (F7))		Thin Dark Si	urface (S9) (LRR K, L)
Sandy N	lucky Mineral (S1)		Redox Depre	essior	ns (F8)			Iron-Manga	nese Masses (F12) (LRR K, L, R)
Sandy G	ileyed Matrix (S4)		-					Piedmont Fi	
Sandy F	edox (S5)							Mesic Spodi	IC (TA6) (MLRA 144A, 145, 149B)
Stripped	d Matrix (S6)							Red Parent	Material (F21)
Dark Su	rface (S7) (LRR R. M	LRA 14	9B)					Very Shallov	W Dark Surface (TFT2)
			- •					Other (Expla	ain in Remarks)
³ Indicators	of hydrophytic vege	etation	and wetland hyd	rolog	y must b	e present, u	nless disturb	ed or problematic.	
Restrictive	ayer (if observed):								
	Туре:		None	_		Hydric Soi	l Present?		Yes 🟒 No
	Depth (inches):								
Remarks:									
A positive i	ndication of hydric s	soil wa	s observed. The c	riterio	on for hy	dric soil is m	net.		

Vegetation Photos





Soil Photos



Photo of Sample Plot North



Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	oject/Site: Flat Creek Solar Project			City/County: Sprakers, Montgomery County				Sampling Date: 2021-Sept-17		
Applicant/Owner: S	unEast				State: NY		Sampling Point: V	V-JMP-12_PSS-102		
Investigator(s): Jerry Peake, Steve Spotts, Abi Light Section, Township, Range: NA										
Landform (hillslope, te	rrace, etc.):	Flat		Local relie	f (concave, convex	, none):	Concave	Slope (%): 1 to 3		
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.853420632	Long:	-74.5154120675	Datum: WGS84		
Soil Map Unit Name:	Madalin silt	y clay loam,Ma					NWI classific	ation:		
Are climatic/hydrologic	c conditions o	n the site typical	for this time	of year?	Yes No	🖊 (lf no,	explain in Remark	<s.)< td=""></s.)<>		
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	significan naturally	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst plain an	ances" present? y answers in Rema	Yes 🟒 No arks.)		

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🯒 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-12							
Remarks: (Explain alternative procedures h	ere or in a separate repor	t)								
Covertype is PSS. Area is wetland, all three	Covertype is PSS. Area is wetland, all three wetland parameters are present. Heavy precipitation 2 days prior to data plot collection .									

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)				
 Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) 	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 				
Field Observations:					
Surface Water Present? Yes No _∠ Depth (inches):					
Water Table Present? Yes 🖌 No Depth (inches): 18	Wetland Hydrology Present? Yes No				
Saturation Present? Yes No 🖌 Depth (inches):					
(includes capillary fringe)	_				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), Remarks: The criterion for wetland hydrology is met. A positive indication of wetland hydrology was obs	f available:				

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-12_PSS-102

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test work Number of Dominant	s heet: Species That	2	
1. Ulmus americana	25	Yes	FACW	Are OBL, FACW, or FA	C:	2	(A)
2.				Total Number of Dom	inant Species	5	(P)
3.				Across All Strata:		J	(D)
4		·		Percent of Dominant	Species That	40	(A/B)
5		·		Are OBL, FACW, or FA	C:		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
6		·		 Prevalence Index wor 	ksheet:		
7		·		- <u>Total % Cove</u>	<u>er of:</u>	<u>Multiply</u>	<u>' By:</u>
	25	= Total Cov	er	- OBL species	5	x 1 =	5
Sanling/Shruh Stratum (Plot size: 15 ft)		-		FACW species	60	x 2 =	120
1 Cornus racemosa	100	Ves	FAC	FAC species	125	x 3 =	375
2 Rhampus cathartica		No	FAC	- FACU species	135	x 4 =	540
2. Illmus amoricana		No		- UPL species	0	x 5 =	0
	15	NU	FACVV	- Column Totals	325	(A)	1040 (B)
4				- Prevalence	Index = B/A =	3.2	. <u> </u>
5				Hydrophytic Vegetatio	on Indicators:		
o		·		1- Rapid Test for	· Hydrophytic V	egetatior	า
7				2 - Dominance T	est is > 50%		
	140	= lotal Cov	er	3 - Prevalence Ir	ndex is $\leq 3.0^1$		
Herb Stratum (Plot size: <u>5 ft</u>)	50		FACU	4 - Morphologica	al Adaptations	(Provide	supporting
1. Solidago canadensis	50	Yes	FACU	- data in Remarks or or	n a separate sh	leet)	
2. Melilotus officinalis		Yes	FACU	Problematic Hyd	drophytic Vege	tation ¹ (E	xplain)
3. Galium mollugo	25	Yes	FACU	¹ Indicators of hydric s	oil and wetlan	d hydrolc	ogy must be
4. Symphyotrichum lanceolatum	15	No	FACW	present, unless distur	bed or proble	matic	
5. <i>Dipsacus fullonum</i>	15	No	FACU	Definitions of Vegetat	ion Strata:		
6. <i>Cirsium arvense</i>	15	No	FACU	Tree – Woody plants 3	3 in. (7.6 cm) or	r more in	diameter at
7. Persicaria sagittata	5	No	OBL	breast height (DBH), r	egardless of h	eight.	
8. Echinocystis lobata	5	No	FACW	Sapling/shrub – Wood	dy plants less t	han 3 in.	DBH and
9		. <u> </u>		greater than or equal	to 3.28 ft (1 m) tall.	
10				Herb – All herbaceous	s (non-woody)	plants, re	gardless of
11				size, and woody plant	s less than 3.2	8 ft tall.	
12.				Woody vines – All woo	ody vines great	ter than 3	.28 ft in
	160	= Total Cov	er	height.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)		-		Hydrophytic Vegetati	ion Present?	/es 🟒 I	No
1.							
2.				-			
3.				-			
4				-			
		= Total Cov	er	-			
	0	- 10tal COV	CI				

SOIL

inches)	Matrix		Redo	<pre>< Feat</pre>	ures		
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ² Te	exture Remarks
0 - 6	10YR 3/1	100				Silty	Clay Loam
6 - 12	10YR 3/1	95	10YR 4/6	5	С	M Silty (Clay Loam
12 - 20	10YR 4/2	90	10YR 4/6	10	С	M Silty (Clay Loam
				·		·	
/pe: C = 0	 Concentration, D =	Depletio	on, RM = Reduced	l Mat	rix, MS =	Masked Sand Grains.	² Location: PL = Pore Lining, M = Matrix.
dric Soil	Indicators:	•					Indicators for Problematic Hydric Soils ³ :
Histoso	l (A1)		Polyvalue Be	low S	urface (S	8) (LRR R, MLRA 149B)	2 cm Muck (A10) (I RR K. I. MI RA 149R)
_ Histic E	pipedon (A2)		Thin Dark Su	rface	(S9) (LRR	R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K. L. R)
_ Black H	istic (A3)		Loamy Muck	y Min	eral (F1)	(LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrog	en Sulfide (A4)		Loamy Gleye	d Ma	trix (F2)		Dark Surface (S7) (LRR K, L)
_Stratifie	d Layers (A5)	(1 1 1	Depleted Ma	itrix (l	-3)		Polyvalue Below Surface (S8) (LRR K, L)
_ Depiete Thick D	ark Surface (A12)	ace (ATT	Depleted Da	suria rk Sui	(F6) face (F7)		Thin Dark Surface (S9) (LRR K, L)
Sandy N	Aucky Mineral (S1)		Depieted Da	ssior	1ace (F7) 1s (F8)		Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy (Sleved Matrix (S4)			233101	13 (10)		Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy F	Redox (S5)						Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Strippe	d Matrix (S6)						Red Parent Material (F21)
Dark Su	urface (S7) (LRR R, I	MLRA 14	9B)				Very Shallow Dark Surface (TF12)
_							
	of hydrophytic ve	getation	and wetland hyd	rolog	y must be	e present, unless distu	bed or problematic.
ndicators):					
idicators estrictive	Layer (if observed)					Hydric Soil Present?	Yes No
dicators strictive	Layer (if observed) Type:		None				
dicators strictive	Layer (if observed) Type: Depth (inches):		None				
strictive	Layer (if observed) Type: Depth (inches):		None				
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydric	soil was	None s observed.				
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydrio	soil was	None s observed.				
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydric	soil was	None				
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydric	soil was	None				
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydric	soil was	None s observed.			<u> </u>	
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydric	soil was	None s observed.			<u> </u>	
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydric	c soil was	None s observed.				
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydrio	soil was	None s observed.				
dicators strictive marks: bositive i	Layer (if observed) Type: Depth (inches): ndication of hydric	soil was	None s observed.				
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydrid	soil was	None s observed.				
dicators strictive marks: bositive i	Layer (if observed) Type: Depth (inches): ndication of hydrio	soil was	None				
marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydrio	c soil was	None				
estrictive emarks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydrio	c soil was	None s observed.				
estrictive emarks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydrio	soil was	None s observed.				
strictive marks: bositive i	Layer (if observed) Type: Depth (inches): ndication of hydrid	soil was	None s observed.				
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydrid	c soil was	None s observed.				
dicators strictive marks: positive i	Layer (if observed) Type: Depth (inches): ndication of hydrid	c soil was	None s observed.				

Vegetation Photos



Soil Photos



Photo of Sample Plot North



Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creel	roject/Site: Flat Creek Solar Project City/County: Sprakers, Montgomery Cou					y Sampling Date: 2021-S		
Applicant/Owner: Su	unEast			State: NY		Sampling Point: W-	JMP-12_UPL-1	
Investigator(s): Jerry Peake, Carson Rowe, Abi Light Section, Township, Range: NA								
Landform (hillslope, te	rrace, etc.):	Flat	Local reli	ef (concave, convex,	none):	None	Slope (%): 1	to 3
Subregion (LRR or MLR	RA): LRR	-	La	t: 42.8539727682	Long:	-74.517434779	Datum: WGS	584
Soil Map Unit Name:	Madalin silty	r clay loam, Ma				NWI classificat	ti on: None	
Are climatic/hydrologic	conditions o	n the site typical for thi	is time of year?	Yes 🟒 No 🔄	(If no	, explain in Remark	s.)	
Are Vegetation 🟒,	Soil 🟒,	or Hydrology sig	nificantly disturbed?	Are "Normal C	Circumst	ances" present?	Yes No	✓
Are Vegetation,	Soil,	or Hydrology nat	turally problematic?	(If needed, ex	plain an	y answers in Remar	ks.)	

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

Hydrophytic Vegetation Present?	Yes No							
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes No 🟒					
Wetland Hydrology Present?	Yes No _	lf yes, optional Wetland Site ID:						
Remarks: (Explain alternative procedures here or in a separate report)								
Covertype is UPL. Area is upland, not all three wetland parameters are present. Circumstances are not normal due to mowing of vegetation.								
Circumstances are not normal due to agricul	tural activities.							

HYDROLOGY

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

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-12_UPL-1

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant	Indicator Status	Dominance Test works	heet:			
1 Populus deltoides	40	Yes	FAC	Are OBL, FACW, or FAC		4	(A)	
2 Salix alba	15	Yes	FACW	Total Number of Domir	nant Species	6	(D)	
3			incir	Across All Strata:		0	(B)	
4				Percent of Dominant Species That		66 7	(A/R)	
5				Are OBL, FACW, or FAC			(//////	
6				Prevalence Index works	sheet:			
7				Total % Cover	<u>of:</u>	<u>Multiply</u>	<u>By:</u>	
	55	= Total Cov	or	OBL species	0	x 1 =	0	
Sapling/Shrub Stratum (Plot size: 15 ft)			CI	FACW species	15	x 2 =	30	
<u>Saping Shiub Stratum</u> (Flot Size, <u>15 it</u>)	25	Voc	EAC	FAC species	95	x 3 =	285	
				FACU species	135	x 4 =	540	
	20		FACU	UPL species	0	x 5 =	0	
	20	res	FAC	Column Totals	245	(A)	855 (B)	
4.		·		Prevalence In	ndex = B/A =	3.5		
5.		·		Hydrophytic Vegetation	Indicators:			
6.				1- Rapid Test for H	Hydrophytic V	egetation		
/		<u> </u>		✓ 2 - Dominance Te	st is >50%	0		
	75	= Total Cov	er	3 - Prevalence Index is $≤ 3.0^1$				
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations	(Provide	supporting	
1. Solidago canadensis	85	Yes	FACU	— data in Remarks or on a separate sheet)				
2. Asparagus officinalis	20	No	FACU	Problematic Hydr	ophytic Vege	tation ¹ (Ex	(plain)	
3. <u>Vicia americana</u>	10	No	FACU	¹ Indicators of hydric so	il and wetlan	d hydrolog	gy must be	
4				present, unless disturb	ed or probler	matic		
5				Definitions of Vegetation	on Strata:			
6				Tree – Woody plants 3 i	n. (7.6 cm) or	r more in o	diameter at	
7				breast height (DBH), re	gardless of h	eight.		
8				Sapling/shrub - Woody	plants less tl	han 3 in. D	OBH and	
9				greater than or equal to	o 3.28 ft (1 m) tall.		
10.				Herb – All herbaceous ((non-woody)	plants, reg	gardless of	
11.				size, and woody plants	less than 3.2	8 ft tall.		
12.				Woody vines – All wood	dy vines great	ter than 3.	.28 ft in	
	115	= Total Cov	er	height.				
Woody Vine Stratum (Plot size: 30 ft)		-		Hydrophytic Vegetatio	n Present?	/es 🟒 N	lo	
1.								
2.								
3.								
4		·						
···	0	= Total Cov	er					
				J				
Remarks: (Include photo numbers here or on a separat	e sheet.)							
A positive indication of hydrophytic vegetation was obs	erved (>50	0% of domin	ant species	indexed as OBL, FACW, o	r FAC).			

SOIL

Profile Descr	iption: (Describe	to the d	epth needed to d	locum	nent the i	ndicator	or confirm the al	bsence of indicato	rs.)
Depth			Color (model)	reat	ures Tranci	1	T		Demonster
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туреч	LOC ²			Remarks
- 10	10YR 3/2	100							
10 - 20	10YR 4/2	90	7.5YR 5/6	10	C	M	Silty Clay	/ Loam	
				·					
-									
-									
-									
-									
				·					
1 Type: C = Co	ncentration. D =	Depletio	on. RM = Reduced	Mat	rix. MS =	Masked	Sand Grains 21	ocation: PL = Pore	Lining M = Matrix
Hydric Soil In	dicators:	Depiction		innar	1, 113	masicea		Indicators for Pr	oblematic Hydric Soils ³
Histosol	A1)		Polyvalue Re	low S	urface (S	8) (RR F	R. MI RA 149R)		
Histic Fni	pedon (A2)		Thin Dark Su	rface	(S9) (I RR	R. MIRA	A 149B)	2 cm Muck (#	ATU) (LKK K, L, MLKA 149B)
Black His	tic (A3)		Loamy Muck	v Min	eral (F1)	(LRR K. L	.)	Coast Prairie	Redox (A16) (LRR K, L, R)
Hydroger	n Sulfide (A4)		Loamy Gleve	d Ma	trix (F2)	(, -	2	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Stratified	Layers (A5)		Depleted Ma	ıtrix (l	-3)			Dark Surface	(S7) (LRR K, L)
Depleted	Below Dark Surf	ace (A11) Redox Dark S	Surfa	ce (F6)			Polyvalue Be	
Thick Dar	k Surface (A12)		Depleted Da	rk Su	face (F7)				
Sandy Mu	ucky Mineral (S1)		Redox Depre	essior	ıs (F8)			Iron-wangan	lese Masses (F12) (LRR N, L, R)
Sandy Gl	eyed Matrix (S4)							Pleumont Fit	
Sandy Re	dox (S5)							Mesic Spould	(1A0) (NILKA 144A, 143, 149B)
Stripped	Matrix (S6)								v Dark Surface (TE12)
Dark Sur	ace (S7) (LRR R, I	MLRA 14	9B)						in in Pomarks)
³ Indicators o	f hydrophytic yeg	zetation	and wetland hvd	rolog	v must be	e presen	t. unless disturbe	d or problematic.	in in remarksy
Restrictive La	ver (if observed)):	_ _				,		
T	vne.		None			Hydric	Soil Present?	Ň	Yes / No
, L	enth (inches):		None			ingane	Son Present.		
L	eptil (inches).								
A positive ind	lication of hydric	: soil was	s observed. The c	riteric	on for hyd	dric soil i	is met.		

Vegetation Photos



Soil Photos



Photo of Sample Plot East



US Army Corps of Engineers

Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	City/County: Sprakers, Montgomery County			Sampling Date: 2021-Sept-16							
Applicant/Owner: S	State: NY			Sampling Point: W-JMP-12_UPL-2							
Investigator(s): Jerry Peake, Steve Spotts, Abi Light Sec						Section, Township, Range: NA					
Landform (hillslope, te	rrace, etc.):	Flat		Local	relief (co	ncave, convex,	none):	Convex	Slope	: (%):	1 to 3
Subregion (LRR or MLF	RA): LRR	L			Lat: 42	.853683	Long:	-74.520286	Datum	n: WG	S84
Soil Map Unit Name:	Darien silt lo	am,DaB						NWI classificat	i on: Non	e	
Are climatic/hydrologic	c conditions o	n the site typical	for this time	of year?	١	/es No _ _	∠ (lf no,	explain in Remarks.	.)		
Are Vegetation, Are Vegetation,	Soil _√ , Soil,	or Hydrology or Hydrology	significan naturally	tly disturbed problematio	d? :?	Are "Normal ((If needed, ex	Circumst plain an	ances" present? y answers in Remarl	Yes ks.)	_ No _	✓

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

Hydrophytic Vegetation Present?	Yes No 🟒								
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland? Yes No							
Wetland Hydrology Present?	Yes No _	If yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures her	Remarks: (Explain alternative procedures here or in a separate report)								
Covertype is UPL. Area is upland, not all three wetland parameters are present. Circumstances are not normal due to agricultural activities.									

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of o	<u>ne is required; check all th</u>	Secondary Indicators (minimum of two required)							
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave Survival 	Water-St Aquatic Marl Dej Hydroge Oxidizec Presence Recent I Thin Mu wagery (B7) Other (E urface (B8)	tained Leaves (B9) Fauna (B13) posits (B15) en Sulfide Odor (C1) d Rhizospheres on Living Ro e of Reduced Iron (C4) ron Reduction in Tilled Soils ck Surface (C7) xplain in Remarks)	ots (C3) ; (C6)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 					
Field Observations:									
Surface Water Present?	Yes No 🟒	Depth (inches):		_					
Water Table Present?	Yes 🟒 No	Depth (inches):	19	Wetland Hydrology Present? Yes No _					
Saturation Present?	Yes No 🟒	Depth (inches):		_					
(includes capillary fringe)									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: The criterion for wetland hydrology is not met. No positive indication of wetland hydrology was observed.									

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-12_UPL-2

Tree Stratum (Diet size: 20 ft.)	Absolute	Dominant	Indicator	Dominance Test works	heet:		
<u>nee stratum</u> (Plot size. <u>_so it _</u>)	% Cover	Species?	Status	Number of Dominant S	Species That	1	(A)
1				Total Number of Domi	: nant Species		
2				Across All Strata:	and species	2	(B)
3				Percent of Dominant S	pecies That		
4.				Are OBL, FACW, or FAC	Are OBL, FACW, or FAC:		(A/B)
S				Prevalence Index worksheet:			
o				- <u>Total % Cover</u>	Total % Cover of:		<u>By:</u>
7.		Tabal Car		OBL species	0	x 1 =	0
Carling (Church Stratum (Distained 45.6)	0	= lotal Cov	/er	FACW species	45	x 2 =	90
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	5	x 3 =	15
1				- FACU species	120	x 4 =	480
2.				UPL species	0	x 5 =	0
3				– Column Totals	170	(A)	585 (B)
4.				Prevalence Ir	ndex = B/A =	3.4	
5.				Hydrophytic Vegetation	n Indicators:		
6.				- 1- Rapid Test for I	-lydrophytic V	'egetatior	า
7		<u> </u>		2 - Dominance Te	st is > 50%	0	
	0	= Total Cov	rer	3 - Prevalence Inc	lex is $\leq 3.0^1$		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations	(Provide	supporting
1. <u>Solidago canadensis</u>	100	Yes	FACU	- data in Remarks or on	a separate sh	eet)	
2. <i>Phalaris arundinacea</i>	30	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)			
3. <i>Dipsacus fullonum</i>	15	No	FACU	¹ Indicators of hydric soil and wetland hydrology must k			ogy must be
4. Symphyotrichum novae-angliae	10	No	FACW	present, unless disturb	ed or proble	natic	
5. <i>Heracleum maximum</i>	5	No	FACW	Definitions of Vegetation	on Strata:		
6. <i>Vicia americana</i>	5	No	FACU	Tree – Woody plants 3	in. (7.6 cm) oı	more in	diameter at
7				breast height (DBH), re	gardless of h	eight.	
8				Sapling/shrub – Woody	/ plants less t	han 3 in.	DBH and
9				greater than or equal t	o 3.28 ft (1 m) tall.	
10				Herb – All herbaceous	(non-woody)	plants, re	gardless of
11				size, and woody plants	less than 3.2	8 TT TAII.	20 6
12				woody vines – All wood	dy vines great	er than 3	5.28 TT IN
	165	= Total Cov	/er	neight.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)				Hydrophytic Vegetatio	n Present?	/es l	No _
1. <i>Vitis riparia</i>	5	Yes	FAC	_			
2				_			
3							
4.				_			
	5	= Total Cov	ver				
Remarks: (Include photo numbers here or on a sep	arate sheet)						

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

Fallow field. No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC- or drier).

SOIL

Profile Desc	cription: (Describe	to the de	epth needed to de	ocum	nent the i	indicato	r or confirm the al	bsence of indicato	rs.)
Depth	Matrix		Redox	Feat	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0 - 6	10YR 3/2	100					Silty Clay Loam		
6 - 20	10YR 3/2	95	5YR 3/4	5	С	М	Clay Loam		
				_					
				—				·	
				—					
				—					
				—					
¹ Type: C = C	Concentration, D =	Depletic	on, RM = Reduced	Mat	rix, MS =	Masked	Sand Grains. ² Lo	ocation: PL = Pore	Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for Pre	oblematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Bel	ow S	urface (S	8) (LRR I	R, MLRA 149B)	2 cm Muck (A	10) (LRR K. L. MLRA 149B)
Histic Ep	oipedon (A2)		Thin Dark Sur	face	(S9) (LRF	R, MLR	A 149B)	Coast Prairie	Redox (A16) (LRR K. L. R)
Black Hi	stic (A3)		Loamy Mucky	/ Min	eral (F1)	(LRR K, I	_)	5 cm Mucky	Peat or Peat (S3) (LRR K. L. R)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Ma	trix (F2)			Dark Surface	(S7) (LRR K. L)
Stratifie	d Layers (A5)		Depleted Mat	rix (I	-3)			Polyvalue Be	low Surface (S8) (LRR K, L)
Deplete	d Below Dark Surf	ace (A11)_✓ Redox Dark S	urfa	ce (F6)			Thin Dark Su	rface (S9) (LRR K, L)
Thick Da	ark Surface (A12)		Depleted Dar	k Sui	face (F7)			Iron-Mangan	ese Masses (F12) (LRR K, L, R)
Sandy N	lucky Mineral (S1)		Redox Depre	ssior	ıs (F8)			Piedmont Flo	odplain Soils (F19) (MLRA 149B)
Sandy G	ileyed Matrix (S4)							Mesic Spodic	(TA6) (MLRA 144A, 145, 149B)
Sandy R	edox (S5)							Red Parent N	Aaterial (F21)
Stripped	d Matrix (S6)							Very Shallow	Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, N	/LRA 149	9B)					Other (Explai	in in Remarks)
³ Indicators	of hydrophytic yeg	etation	and wetland hvdr	olog	/ must b	e presen	t. unless disturbe	d or problematic.	
Restrictive I	aver (if observed)			0.			,		
	Type:		None			Hydric	Soil Present?	Ň	les / No
	Denth (inches)		Hone						
Domarka	Depth (inches).								
A positivo ir	dication of budric	coilwac	obcorried The cr	itoria	n for hu	dric coil	ic mot		
A positive in	ndication of hydric	son was	observed. The cr	iterio	on for ny	aric soli	is met.		
Vegetation Photos





Soil Photos

Photo of Sample Plot East



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	:	City/County:	Sprakers, Mont	gomery County		Sampling Date:	2021-Sept-1	7
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>V</u>	V-JMP-12_UP	L-101
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light	t	Sec	tion, Township, Ra	nge: N	4		
Landform (hillslope, te	rrace, etc.):	Hillslope		Local relief	f (concave, convex,	none):	None	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): LRR	_		Lat:	42.8529008167	Long:	-74.5141566474	Datum:	WGS84
Soil Map Unit Name:	Darien silt lo	am, DaB					NWI classifica	ation: None	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)									
Are Vegetation, Are Vegetation,	Soil , Soil,	or Hydrology or Hydrology	significant naturally	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst plain an	ances" present? y answers in Rema	Yes arks.)	No 🟒

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

Hydrophytic Vegetation Present?	Yes No 🟒								
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland? Yes No							
Wetland Hydrology Present?	Yes No 🟒	lf yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all three wetland parameters are present. Circumstances are not normal due to mowing of vegetation.									
Circumstances are not normal due to agricul	tural activities.								

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	<u>e is required; check all th</u>	at apply)	Secondary Indicators (minimum o	Secondary Indicators (minimum of two required)		
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Sur 	Water-St Aquatic Marl Dej Hydroge Oxidizec Presenc: Recent I Thin Mu agery (B7) Other (E rface (B8)	tained Leaves (B9) Fauna (B13) posits (B15) en Sulfide Odor (C1) d Rhizospheres on Living Roots (C3) e of Reduced Iron (C4) ron Reduction in Tilled Soils (C6) ck Surface (C7) xplain in Remarks)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Im Stunted or Stressed Plants (D⁷ Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	nagery (C9) 1)		
Field Observations:						
Surface Water Present?	Yes No 🟒	Depth (inches):				
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present?	Yes No 🟒		
Saturation Present?	Yes No 🟒	Depth (inches):				
(includes capillary fringe)						
Describe Recorded Data (stream ga	luge, monitoring well, aer	rial photos, previous inspections), if	available:			
Remarks:	is not mot					
The chilehon for wettand hydrology	'is not filet.					

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-12_UPL-101

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test worksheet:			
	% Cover	Species?	Status	Number of Dominant Species 1	nat 0	(A)	
1				Total Number of Dominant Spe	ries	·	
2.				Across All Strata:	1	(B)	
3.				Percent of Dominant Species T	iat o	(4 (D)	
4				Are OBL, FACW, or FAC:		(A/B)	
э				Prevalence Index worksheet:			
7				Total % Cover of:	<u>Multipl</u>	<u>y By:</u>	
/		- Total Cov	or	OBL species 5	x 1 =	5	
Carling (Church Church um (Diet einer 15 ft.)	0	- 10tal COVe	51	FACW species 0	x 2 =	0	
Sapiing/Shrub Stratum (Piot Size: 15 It)				FAC species 30	x 3 =	90	
1				FACU species 90	x 4 =	360	
2.				UPL species 0	x 5 =	0	
3				Column Totals 125	(A)	455 (B)	
4.				Prevalence Index = B	A = <u>3.6</u>		
5.				Hydrophytic Vegetation Indicat	ors:		
6				1- Rapid Test for Hydroph	/tic Vegetatio	n	
7		<u> </u>		2 - Dominance Test is > 50	%		
	0	= Total Cove	er	3 - Prevalence Index is ≤ 3	.0 ¹		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphological Adaptat	ons ¹ (Provide	e supporting	
1. <i>Holcus lanatus</i>	90	Yes	FACU	data in Remarks or on a separa	te sheet)	11 0	
2. Rumex crispus	20	No	FAC	Problematic Hydrophytic	/egetation¹ (E	Explain)	
3. Echinochloa crus-galli	10	No	FAC	¹ Indicators of hydric soil and wetland hydrology must be			
4. <i>Persicaria hydropiper</i>	5	No	OBL	present, unless disturbed or pr	oblematic		
5				Definitions of Vegetation Strata			
6				Tree – Woody plants 3 in. (7.6 c	n) or more in	i diameter at	
7				breast height (DBH), regardless	of height.		
8				Sapling/shrub - Woody plants l	ess than 3 in.	DBH and	
9				greater than or equal to 3.28 ft	(1 m) tall.		
10		<u> </u>		Herb – All herbaceous (non-wo	ody) plants, re	egardless of	
11		<u> </u>		size, and woody plants less tha	1 3.28 ft tall.		
12				Woody vines – All woody vines	reater than i	3.28 ft in	
	125	= Total Cove	er	Teight.			
Woody Vine Stratum (Plot size: <u>30 ft</u>)				Hydrophytic Vegetation Prese	t? Yes	No 🟒	
1		<u> </u>					
2							
3.							
4.							
	0	= Total Cove	er				
Pemarks: (Include photo numbers here or on a concrete	shoot)	-					
No positive indication of hydrophytic vegetation was ob-	sonuel.	50% of dom	inant specie	as indexed as EAC- or driver)			
	seiveu (2	50% UI UUIII	mant specie	es muereu as FAC- of utlet).			

SOIL

Profile Des	scription: (Describe	to the d	lepth needed to c	locum	ent the i	ndicato	or confirm the a	bsence of indicato	ors.)
Depth	Matrix		Redo	x Feat	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Text	ure	Remarks
0 - 10	10YR 3/2	100					Silty Clay Loam		
10 - 16	10YR 4/2	60	10YR 4/6	10	C	Μ	Silty Clay Loam		
10 - 16	10YR 3/2	30					Silty Clay	y Loam	
16 - 20	10YR 4/3	90	10YR 5/6	10	С	М	Clay L	oam	
¹ Type: C =	Concentration, D =	Depleti	on, RM = Reduced	d Mat	ix, MS =	Masked	Sand Grains. ² L	ocation: PL = Pore	e Lining, M = Matrix.
Hydric Soi	Indicators:							Indicators for Pr	roblematic Hydric Soils ³ :
Histoso	ol (A1)		Polyvalue Be	elow S	urface (S	8) (LRR I	R, MLRA 149B)	2 cm Muck (A10) (I RR K I MI RA 149B)
Histic E	pipedon (A2)		Thin Dark Su	irface	(S9) (LRR	R, MLR	A 149B)	Coast Prairie	e Redox (A16) (I RR K. L. R)
Black H	listic (A3)		Loamy Muck	y Min	eral (F1)	(LRR K, I	_)	5 cm Mucky	Peat or Peat (S3) (I RR K. L. R)
Hydrog	gen Sulfide (A4)		Loamy Gleye	ed Ma	trix (F2)			Dark Surface	e (S7) (LBR K. L)
Stratifi	ed Layers (A5)		_✓ Depleted Ma	atrix (I	3)			Polyvalue Be	elow Surface (S8) (LRR K, L)
Deplet	ed Below Dark Surf	ace (A11	1) Redox Dark	Surfa	:e (F6)			Thin Dark Su	urface (S9) (LRR K, L)
Thick L	Dark Surface (A12)		Depleted Da	rk Su	face (F/)			Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy	Mucky Mineral (ST)		Redox Depre	essior	is (F8)			Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy	Gleyed Matrix (S4)							Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy	Redox (S5)							Red Parent I	Material (F21)
Strippe	ed Matrix (S6)							Very Shallow	v Dark Surface (TF12)
Dark S	urface (S7) (LRR R, N	MLRA 14	!9B)					Other (Expla	iin in Remarks)
³ Indicators	s of hydrophytic veg	getation	and wetland hyd	rolog	/ must be	e presen	t, unless disturbe	d or problematic.	
Restrictive	Layer (if observed)	:							
	Type:		None	_		Hydric	Soil Present?		Yes 🟒 No
	Depth (inches):								
Remarks:									
A positive	indication of hydric	soil wa	s observed. The c	riterio	on for hyd	dric soil	is met.		

Vegetation Photos



Soil Photos



Photo of Sample Plot East



US Army Corps of Engineers

Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Creel	k Solar Projec	t	City/County:	Sprakers, Mon	tgomery County		Sampling Date:	2021-Sep	t-17
Applicant/Owner: Su	unEast				State: NY		Sampling Point: <u>V</u>	V-JMP-12_l	JPL-102
Investigator(s): Jerry	Peake, Steve	Spotts, Abi Light		See	ction, Township, Ra	nge: N/	٩		
Landform (hillslope, ter	rrace, etc.):	Flat		Local relie	f (concave, convex	, none):	None	Slop	e (%): 1 to 3
Subregion (LRR or MLR	A): LRR	L		Lat	42.8533657271	Long:	-74.5153211901	Datu	m: WGS84
Soil Map Unit Name:	Madalin silt	y clay loam, Ma					NWI classifica	ation: No	ne
Are climatic/hydrologic	conditions o	n the site typical	for this time	of year?	Yes No	🖊 (lf no,	explain in Remark	(s.)	
Are Vegetation, Are Vegetation,	Soil _∠ , Soil,	or Hydrology or Hydrology	significan naturally	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst plain an	ances" present? y answers in Rema	Yes arks.)	No 🟒

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

Hydrophytic Vegetation Present?	Yes No 🟒								
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No 🟒	If yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all three Circumstances are not normal due to agricult	e wetland parameters are ural activities. Heavy pre	e present. Circumstances are not normal due to mowin ocipitation 2 days prior to data plot collection .	g of vegetation.						

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Sur 	Water-St Aquatic I Marl Dep Hydroge Oxidized Presence Recent In Thin Mur gery (B7) Other (E fface (B8)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Ima Stunted or Stressed Plants (D1 Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	agery (C9))	
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):	_	
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present?	Yes No 🟒
Saturation Present?	Yes No 🟒	Depth (inches):	_	
(includes capillary fringe)				
Describe Recorded Data (stream ga	uge, monitoring well, aer	ial photos, previous inspections), if	available:	
Remarks:				
The criterion for wetland hydrology	is not met.			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-12_UPL-102

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test works	s heet: Species That	0	(A)
1 2		·		Total Number of Dom	 inant Species	2	(B)
3 4		·		Percent of Dominant S	Species That C:	0	(A/B)
5				Prevalence Index worl	ksheet:		
6				- Total % Cove	r of:	Multiply	<u>/ By:</u>
7				- OBL species	0	x 1 =	0
	0	= Total Cov	er	FACW species	0	x 2 =	0
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	15	x 3 =	45
1.				- FACU species	130	x 4 =	520
2				- UPL species	5	x 5 =	25
3				- Column Totals	150	(A)	590 (B)
4.				- Prevalence I	ndex = B/A =	3.9	(D)
5							•
6				Hydrophylic Vegetaud	In indicators:	/+-+:-	_
7				1- Rapid Test for	Hydrophylic v	regetatio	n
	0	= Total Cov	er	2 - Dominance Test is > 50%			
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)		-		3 - Prevalence in	dex is $\leq 3.0^{\circ}$		
1. Holcus lanatus	90	Yes	FACU	4 - Morphologica	Adaptations	' (Provide	supporting
2. Trifolium repens	30	Yes	FACU	Problematic Hyd	rophytic Vogo	tation1 (E	
3. Echinochloa crus-galli	15	No	FAC	Indicators of hydric soil and wetland hydrology must be			
4. Oxalis dillenii	10	No	FACU	Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic			
5. Eragrostis spectabilis	5	No	UPL	Definitions of Vegetation Strata:			
6.				Tree - Woody plants 3	$\sin (7.6 \text{ cm}) \text{ or}$	r more in	diameter at
7.				breast height (DBH), r	egardless of h	eight.	diameter at
8.				- Sapling/shrub - Wood	v plants less t	han 3 in.	DBH and
9		·		greater than or equal	to 3.28 ft (1 m) tall.	
10		·		Herb – All herbaceous	(non-woody)	plants, re	egardless of
11				size, and woody plant	s less than 3.2	8 ft tall.	•
12				Woody vines – All woo	ody vines great	ter than 3	3.28 ft in
12	150	- Total Cov	or	height.			
Weedy Vine Stratum (Plat size) 20 ft	150	- 10tal COV	ei	Hydrophytic Vegetati	on Present? \	res	No 🖌
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
۱		······································		-			
2.		·		-			
3.		·		-			
4.				-			
	0	= lotal Cov	er				
Remarks: (Include photo numbers here or on a se Active agricultural field. No positive indication of h	parate sheet.) Iydrophytic vege	etation was	observed (a	≥50% of dominant speci	es indexed as	FAC- or	drier).

SOIL

(inches) 0 - 15 15 - 20			Redox	k Feat	ures			
0 - 15 15 - 20	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
15 - 20	10YR 3/2	100				Silt	y Clay Loam	
	10YR 4/2	85	7.5YR 4/6	15	С	M Silt	y Clay Loam	
				·				
· ·				·				
· ·				·				
<u> </u>				·				
<u> </u>				·				
				·				
vpe: C = C	oncentration. D =	Depleti	on. RM = Reduced	d Mati	rix. MS =	Masked Sand Grains	² Location: PL = Por	e Lining, M = Matrix,
vdric Soil I	ndicators:		,		,		Indicators for F	Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	low S	urface (S	8) (LRR R, MLRA 149)	3) 2 cm March	
Histic Ep	ipedon (A2)		Thin Dark Su	irface	(S9) (LRR	R, MLRA 149B)		(ATU) (LKK K, L, WILKA 1496)
Black His	stic (A3)		Loamy Muck	y Min	eral (F1)	(LRR K, L)	5 cm Much	V Peat or Peat (S3) (I RD K I D)
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Ma	trix (F2)		Dark Surfa	re(S7) (LRR K 1)
Stratified	l Layers (A5)		Depleted Ma	atrix (F	-3)		Polyvalue E	Below Surface (S8) (LRR K. L)
_ Depleted	Below Dark Surf	ace (A11) Redox Dark	Surfac	ce (F6)		Thin Dark S	Surface (S9) (LRR K, L)
_ Thick Da	rk Surface (A12)		Depleted Da	rk Sui	face (F7)		Iron-Manga	anese Masses (F12) (LRR K, L, R)
_ Sandy M	ucky Mineral (S1)		Redox Depre	essior	is (F8)		Piedmont F	loodplain Soils (F19) (MLRA 149B)
_ Sandy G	leyed Matrix (S4)						Mesic Spoc	lic (TA6) (MLRA 144A, 145, 149B)
_ Sandy Re	edox (S5)						Red Parent	Material (F21)
_ Stripped	Watrix (S6)	AL DA 14	0.01				Very Shallo	w Dark Surface (TF12)
_ Dark Sur	Tace (57) (LRR R, N	ILKA 14	9B)				Other (Exp	ain in Remarks)
ndicators o	of hydrophytic veg	getation	and wetland hyd	rology	y must be	e present, unless dist	urbed or problematio	-
estrictive L	ayer (if observed)	•						
-	Гуре:		None			Hydric Soil Present	2	Yes No 🟒
Ţ	Depth (inches):							
marks:						•		
o positive	indication of hydr	ic soils v	vas observed.					
	2							

Vegetation Photos



Soil Photos

Photo of Sample Plot East



Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Project	City/County:	Sprakers, Mont	gomery County		Sampling Date:	2021-Sept-08	
Applicant/Owner: S	unEast			State: NY		Sampling Point: W	-JMP-13_PFO-1	
Investigator(s): Jerry Peake, Carson Rowe, Abi Light Section, Township, Range: NA								
Landform (hillslope, te	rrace, etc.):	Flat	Local relief	(concave, convex,	none):	None	Slope (%): 0 to 1	
Subregion (LRR or MLF	RA): LRR	L	Lat:	42.8572040086	Long:	-74.5160033316	Datum: WGS84	
Soil Map Unit Name:	llion silt loan	n, 3 to 8 percent slopes				NWI classifica	tion: None	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)								
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology significan or Hydrology naturally	tly disturbed? problematic?	Are "Normal C (If needed, ex	Circumst plain an	ances" present? y answers in Remai	Yes 🟒 No ˈks.)	

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

Hydrophytic Vegetation Present?	Yes 🟒 No								
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🧹 No						
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-13						
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is PFO. Area is wetland, all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)			
	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) (C3) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 			
Field Observations:				
Surface Water Present? Yes No _∠ Depth (inches):	_			
Water Table Present? Yes No _	Wetland Hydrology Present? Yes No			
Saturation Present? Yes 🖌 No Depth (inches): 18				
(includes capillary fringe)	_			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), Remarks: The criterion for wetland hydrology is met. A positive indication of wetland hydrology was obs	f available:			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-13_PFO-1

T C	Absolute		Indicator	Dominance Test workshe	eet:		
<u>Iree Stratum</u> (Plot size: <u>_30 ft</u>)	% Cover	Dominant Species?	Status	Number of Dominant Sp	ecies That	4	(A)
1. <i>Tilia americana</i>	50	Yes	FACU	Are OBL, FACW, or FAC:		· ·	(~)
2. <i>Fraxinus americana</i>	15	Yes	FACU	Total Number of Dominant Species		6	(B)
3	. <u></u>			Across All Strata:	:		
4	. <u></u>					66.7	(A/B)
5	. <u></u>						
6	. <u></u>			Total % Cover o	f.	Multiply	By:
7	. <u> </u>			OBL species	<u>15</u>	x 1 =	1 5
	65	= Total Cover		FACW species	105	x2=	210
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	60	×3=	180
1. <i>Cornus racemosa</i>	40	Yes	FAC	FACI I species	85	× 4 =	340
2. <i>Lonicera morrowii</i>	10	No	FACU	I IPI species	0	×	0+0
3. <i>Carpinus caroliniana</i>	5	No	FAC	Column Totals	265	× J = _	74E (P)
4. Acer saccharum	5	No	FACU	Brovalance Ind	203	(A) _	743 (D)
5.						2.0	
6.				Hydrophytic Vegetation	Indicators:		
7.	·			1- Rapid Test for Hy	/drophytic V	egetation	1
	60	= Total Cover		\sim 2 - Dominance Test is >50%			
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				3 - Prevalence Inde	x is ≤ 3.0'	(D)	
1. Onoclea sensibilis	60	Yes	FACW	4 - Morphological A	daptations'	(Provide	supporting
2. <i>Solidago gigantea</i>	30	Yes	FACW	Problematic Hydro	nhytic Veget	tation ¹ (Ex	(nlain)
3. Epilobium coloratum	15	No	OBL	¹ Indicators of bydric soil and wetland bydrology must be			
4. Athyrium angustum	10	No	FAC	present, unless disturbed or problematic			by mase be
5. Parthenocissus quinquefolia	5	No	FACU	Definitions of Vegetation	Strata:		
6. <i>Lysimachia nummularia</i>	10	Percent cover cannot be greater than a previous species	FACW	Tree – Woody plants 3 in breast height (DBH), rega Sapling/shrub – Woody p greater than or equal to	. (7.6 cm) or ardless of h plants less th 3.28 ft (1 m	⁻ more in o eight. nan 3 in. [) tall.	diameter at DBH and
7. Impatiens capensis	5	No	FACW	Herb – All herbaceous (n	on-woodv)	, lants, reg	gardless of
8.	·			size, and woody plants le	ess than 3.2	8 ft tall.	
9.	·			Woody vines - All woody	vines great	er than 3	.28 ft in
10.	·			height.			
11.	·			Hydrophytic Vegetation	Present? Y	′es 🖌 N	10
12.							
	135	= Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)							
1. <i>Vitis riparia</i>	5	Yes	FAC				
2.	·						
3.	·						
4.	·						
	5	= Total Cover					
	-						

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).

SOIL

Operative Matrix Redox Features 0.48 1004 routed with the color (modit with the color (with the color (withe color (with the color (withe color (with the color	Profile Des	scription: (Describe	to the	depth needed to d	locum	nent the i	indicato	r or confirm the al	bsence of indicator	's.)
Indicators Color (moist) % % % % %	Depth	Matrix		Redox	Feat	ures	<u> </u>	_		
0-8 10W 22 95 Z/SW 4/4 5 C M Silty Clay Learn 8-15 10W 23 25 SW 4/6 C M Silty Clay Learn 15-20 10W 8/3 75 10W 4/6 0 C M Silty Clay Learn 15-20 10W 8/3 75 10W 4/6 0 C M Silty Clay Learn 15-20 10W 8/3 75 10W 4/6 0 C M Silty Clay Learn 15-20 10W 8/3 75 10W 4/6 0 C M Silty Clay Learn 15-20 10W 8/3 75 10W 4/6 0 C M Silty Clay Learn 15-20 10W 8/2 2 Toth 3/2 M <	(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Text	ure	Remarks
8 - 15 10/R 3/2 80 SYR 4/6 5 C M Sity Clay Learn 15 - 20 10/R 3/2 75 10/R 4/6 10 C M Sity Clay Learn 15 - 20 10/R 3/2 75 10/R 4/6 10 C M Sity Clay Learn 15 - 20 10/R 3/2 9 9 Sity Clay Learn 9 15 - 20 10/R 3/2 9 9 Sity Clay Learn 9 15 - 20 10/R 3/2 9 9 9 9 15 - 20 10/R 3/2 9 9 9 9 16 - 20 10/R 3/2 9 9 9 9 9 17 - 20 10/R 3/2 9 </td <td>0 - 8</td> <td>10YR 2/2</td> <td>95</td> <td>7.5YR 3/4</td> <td>5</td> <td><u> </u></td> <td></td> <td colspan="2">Silty Clay Loam</td> <td></td>	0 - 8	10YR 2/2	95	7.5YR 3/4	5	<u> </u>		Silty Clay Loam		
8-15 10YR 5/3 15	8 - 15	10YR 3/2	80	5YR 4/6	5	C	M	Silty Clay Loam		
15 - 20 10YR 5/3 75 10YR 4/6 10 C M Silty Clay Leam 15 - 20 10YR 3/2	8 - 15	10YR 5/3	15		·			Silty Clay	y Loam	
15 - 20 10YR 3/2 Silly Clay Loam Image: Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ?Location: PL = Pore Lining, M = Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils? Histosoi (1) Polyvalue Below Surface (S9) (LRR K, MLRA 1498) Coast Prair Beads (A16) (LRR K, L RA Histosoi (1) Polyvalue Below Surface (S9) (LRR K, MLRA 1498) Coast Prair Beads (A16) (LRR K, L RA Histosoi (A2) Thin Dark Surface (S9) (LRR K, MLRA 1498) Coast Prair Beads (A16) (LRR K, L RA Straiffed Layers (A5) Oppleted Matrix (F2) Dark Surface (S1) (LRR K, L) Straiffed Layers (A5) Oppleted Dark Surface (F7) Thin Dark Surface (S1) (LRR K, L) Sandy Mucky (S5) — Polyvalue Below Surface (S5) (LRR K, L) Polyvalue Below Surface (S12) (LRR K, L) Sandy Mucky (S5) — Polyvalue Matrix (S4) — Polyvalue Below Surface (S12) (LRR K, L) Sandy Mucky (S5) — Red Parent Matria (F2) — Dark Surface (S12) (LRR K, L) Sandy Mucky (S5) — Red Parent Matria (F2) — Other (Explain in Remarks) Thrich Cark Surface (S1) (LRR K, ML 1498) — Verset Matrix (S4) — Prevent Problematic. Restrictive Layer (G10 Exerce): — None — Verset Matrix (S6) — None <td>15 - 20</td> <td>10YR 5/3</td> <td>75</td> <td>10YR 4/6</td> <td>10</td> <td>C</td> <td>M</td> <td>Silty Clay</td> <td>y Loam</td> <td></td>	15 - 20	10YR 5/3	75	10YR 4/6	10	C	M	Silty Clay	y Loam	
Type: (2 = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. PL = Pore Lining, M = Matrix. Hydric Soll Indicators: Histos (CA) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, R) Histos (CA) Thin Dark Surface (S9) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, R) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Muck / Paet or Paet (S3) (LRR K, L, R) Depleted Bow Dark Surface (F1) Depleted Matrix (F3) Polyvalue Below Surface (S9) (LRR K, L) Standy Medix (Mineral (F1) Red X L (F1) Polyvalue Below Surface (S9) (LRR K, L) Sandy Medix (S1) Red X Depressions (F8) Trinc Matria (F2) Sandy Medix (S4) Depleted Matrix (S4) Polyvalue Below Surface (F12) Sandy Medix (S5) Back Surface (F12) Other (Explain in Remarks) Stirlpeed Matrix (S6) Warface (S7) (LRR R, MLRA 149B) Matrix (S6) Stirlpeed Matrix (S6) Warface (F12) Other (Explain in Remarks) Mindicators of hydrophytic wegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (f10) Type: None Hydric Soil Present? Yes _ No	15 - 20	10YR 3/2						Silty Clay	y Loam	
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Histicsol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Vark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loarny Mucky Mineral (F1) (LRR K, L) Bytorgen Sulfide (A4) Loarny Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (T3) Depleted Bolow Dark Surface (A11) Redox Dark Surface (F7) Thick Dark Surface (A11) Redox Dark Surface (F7) Sandy Redox (S5) Peleded Dark Surface (F7) Sandy Gleyed Matrix (S4) Back Histic (A3) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Mesic Spanese Masses (F12) (LRR K, L R9) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S4) Wesic Spanese Masses (F12) (LRR K, L 49B) Sandy Redox (S5) Red Parent Material (F21) Dark Surface (F7) Thin Dark Surface (F7) Dark Surface (S7) (LRR R, MLAA 149B) Very Shallow Dark Surface (F12) Dark Surface (S7) (LRR R, MLAA 145, 149B) Peletonet Floopfinal Solis (F19) (MIRA 1448) Sandy Redox (S5) Peletonet Floopfinal Solis (F10) (MIRA 1448)										
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Hydric Soll Indicators: Indicators for Problematic Hydric Solls? Histosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, RL A149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRK K, L) Scast Prairie Redox (A16) (LRR K, L, R) Phydrogen Sulfde (A4) Loamy Mucky Mineral (F1) (LRK K, L) Scr Mucky (A10) (LRR K, L, R) Depleted Boob Dark Surface (S7) (LRR K, L) Dark Surface (S7) (LRR K, L, R) Depleted Boob Dark Surface (A11) Redox Dark Surface (F2) — Drin Dark Surface (S9) (LRR K, L, R) Sandy Gleyed Matrix (S4) — Depleted Dark Surface (F2) — Thin Dark Surface (S9) (LRR K, L, R) Sandy Redox (S5) — Red Parent Material (F21) — Surface (S7) (LRR K, L, R) Sandy Redox (S5) — Red Parent Material (F21) — Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Remarks: A positive indication of hydric soil was observed. The criterion for hydric soil is met. Yes _ No										
Type: (= Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix, Hydric Soil Indicators: Indicators for Problematic Hydric Soils? Histic Epipedon (A2) Thin Dark Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, R) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L)										
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ?Location: PL = Pore Lining, M = Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils? Histosol (A1)										
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location; PL = Pore Lining, M = Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils? Histosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L) Stratified Layers (A5) Depleted Matrix (F2) Dark Surface (S7) (LRR K, L) Stratified Layers (A5) Depleted Matrix (F2) Dark Surface (S7) (LRR K, L) Sandy Revort (S1) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Pledmont Floodoplain Soils (F19) (MLR 149B) Sandy Redox (S5) Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (T712) 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. Restricture Layer (f1 Observed): Type: None Uppth (inches): Hydric Soil Present? Yes No Park Site indication of hydric soil was observed. The criterion for hydric soil is met. A positive indication										
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils? Histosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) Coast Prainie Redox (A10) (LRR K, L, R) Black Histic Epipedon (A2) Thin Dark Surface (S0) (LRR K, L) S on Muck Paraine Redox (A16) (LRR K, L, R) Black Histic (A3) Loamy Gleyed Matrix (F2) D ark Surface (S7) (LRR K, L) S on Muck Paraine Redox (A16) (LRR K, L, R) Stratified Layers (A5) Depleted Matrix (F2) Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Polyvalue Below Surface (S9) (LRR K, L) Inon-Manganese Masses (F12) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (C16) (MLRA 149B) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (C16) (MLRA 149B) Sandy Mucky Mineral (S1) Redox Antra 145, 149B) Piedmont Floodplain Soils (C16) (MLRA 144, 15, 149B) Sandy Mucky Mineral (S1) Redox Pareins Redox Soft (C16) (MLRA 144, 15, 149B) Piedmont Floodplain Soils (C16) (MLRA 144, 15, 149B) Sandy Mucky Mineral (S1) Polybein Matrix (S6) Piedmont Floodplain Soils (C16) (MLRA 144, 15, 149B) <td></td>										
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. 2Location: PL = Pore Lining, M = Matrix. Hydrosoli Indicators: Indicators for Problematic Hydric Soils? Histosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Stratified Layers (A5) Depleted Matrix (F2) Dark Surface (S9) (LRR K, L) Peolyteal Below Sark Surface (A11) Redox Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L, R) Sandy Gleyed Matrix (S4) Back Virface (S7) Thin Dark Surface (S9) (LRR K, L, R) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Pledmont Floodplain Soils (F19) (MLRA 1449, 145, 149B) Sandy Gleyed Matrix (S6) Matrix (S6) Muck Surface (T12) Other (S7) (LRR K, L, R) Sartifyped Matrix (S6) Wark Surface (TF12) Other (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Other (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Back riser (F7) None Hydric Soil Present? Yes < No										
Hydric Soil Indicators: Indicators for Problematic Hydric Soils?: Histic Sippedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Sippedon (A2) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Pat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Dark Surface (S7) (LRR K, L) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Thin Dark Surface (S2) (LRR K, L) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Thin Dark Surface (S2) (LRR K, L) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Thin Dark Surface (S2) (LRR K, L) Stripped Matrix (S4) Red Parent Material (F21) Mesic Spoid: (TA6) (MLR A14A, 145, 149B) Sandy Mucky Mineral (S1) Red Parent Material (F21) Other (Explain in Remarks) Piedmont Floodplain Soils (F12) Other (Explain in Remarks) Sillicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (If Observed): Type: None Yes _< No	¹ Type: C =	Concentration, D =	 Deplet	ion, RM = Reduce	d Mat	rix, MS =	Masked	Sand Grains. ² Le	ocation: PL = Pore l	Lining, M = Matrix.
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L MLRA 149B) Histić Epipedon (A2) Thin Dark Surface (S9) (LRR K, L) 5 coast Prairie Redox (A16) (LRR K, L, R) Black Histić (A3) Loamy Gleyed Matrix (F2) Dark Surface (S7) (LRR K, L) 5 com Mucky Peat or Peat (S3) (LRR K, L, R) Stratified Layers (A5) Depleted Matrix (F3) Depleted Matrix (F3) Polyvalue Below Surface (S9) (LRR K, L) Thick Dark Surface (A112) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Solis (F19) (MLRA 149B) Sandy Mucky Mineral (S6) Mesic Spodic (TA6) (MLRA 1445, 149B) Mesic Spodic (TA6) (MLRA 144, 145, 149B) Sandy Mucky Mineral (S6) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (S7) (LRR R, MLRA 149B) Pepth (inches): None Very Shallow Dark Surfac	Hydric Soil	Indicators:							Indicators for Pro	oblematic Hydric Soils ³ :
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Coast Praine Redox (A10) (LRR K, L, R) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) S cm Mucky Pater or Paet (S3) (LRR K, L, R) Hydrogen Suffide (A4) Loamy Gleyed Matrix (F2) Dark Surface (S7) (LRR K, L, R) Stratified Layers (A5) Depleted Matrix (F3) Polyvalue Below Surface (S9) (LRR K, L) Thick Dark Surface (A11) ∠ Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Solis (F19) (MLRA 1498) Sandy Redox (S5) Red Parent Material (F2) Dethet Dark Surface (T12) Sandy Redox (S5) Red Parent Material (F2) Very Shallow Dark Surface (F12) Sandy Redox (S5) Red Parent Material (F2) Very Shallow Dark Surface (F12) Sandy Redox (S5) Red Parent Material (F2) Very Shallow Dark Surface (F12) 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): None Type: None Depth (inches): None Positive indication of hydric soil was observed. The criterion for hydric soil is met.	Histoso	ol (A1)		Polyvalue Be	elow S	urface (S	8) (LRR	R, MLRA 149B)	2 cm Muck (A	
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Som Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Dark Surface (S7) (LRR K, L) Depleted Below Dark Surface (A11) ∠ Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L)	Histic E	pipedon (A2)		Thin Dark Su	urface	(S9) (LRF	R, MLR	A 149B)	2 CIII Muck (A	Peday (A16) (I PP K P)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Dark Surface (57) (LRR K, L) Depleted Matrix (F3) Depleted Matrix (F3) Polyvalue Below Surface (S8) (LRR K, L) Polyvalue Selow Surface (S9) (LRR K, L) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) Below Dark Surface (S9) (LRR K, L) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) Below Surface (S9) (LRR K, L) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) Below Surface (S9) (LRR K, L) Depleted Dark Surface (F7)	Black H	listic (A3)		Loamy Mucl	y Mir	neral (F1)	(LRR K, I	_)	Coast Fraine	$P_{\text{Post}} = (A + b) (LRR R, L, R)$
Strictive Layer (If observed): Type: None Depth (inches): Remarks: A positive indication of hydric soil was observed. The criterion for hydric soil is met.	Hydrog	gen Sulfide (A4)		Loamy Gleye	ed Ma	trix (F2)			Dark Surface	
Depleted Below Dark Surface (A11) / Redox Dark Surface (F6) Thick Dark Surface (A12) _ Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) _ Redox Depressions (F8) _ Piedmont Floodplain Solis (F19) (MLRA 149B) Sandy Redox (S5) _ Red Parent Material (F2) _ Very Shallow Dark Surface (TF12) _ Dark Surface (S7) (LRR R, MLRA 149B) _ Very Shallow Dark Surface (TF12) _ Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: None Hydric Soil Present? Yes No _ Performance (S7) (LRR R, MLRA 149B) Remarks: A positive indication of hydric soil was observed. The criterion for hydric soil is met.	Stratifi	ed Layers (A5)		Depleted Ma	atrix (I	F3)			Polyvalue Bel	ow Surface (S8) (LRR K 1)
Thick Dark Surface (A12)Depleted Dark Surface (F7) iron-Manganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144, 145, 1498) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B)	Deplet	ed Below Dark Surfa	ace (A1	1)_✓ Redox Dark	Surfa	ce (F6)			Thin Dark Sur	
Sandy Mucky Mineral (S1)Redox Depressions (F8)Piedmont Floodplain Solis (F19) (MLRA 149B)Piedmont Floodplain Solis (F19) (MLRA 149B)	Thick D	oark Surface (A12)		Depleted Da	rk Su	rface (F7))		Iron-Mangan	ese Masses (E12) (LRR K. L. R)
Sandy Gleyed Matrix (54) Mesic Spodic (TA6) (MRRA 144A, 145, 149B) Sandy Redox (55) Red Parent Material (F21) Nerk Surface (57) (LR R, MLRA 149B) Other (Explain in Remarks) Other (Explain in Remarks) Idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): 	Sandy	Mucky Mineral (S1)		Redox Depr	essior	ns (F8)			Piedmont Flo	odplain Soils (F19) (MI RA 149B)
Sandy Redox (S5)	Sandy	Gleyed Matrix (S4)							Mesic Spodic	(TA6) (MI RA 144A, 145, 149B)
Stripped Matrix (S6)Very Shallow Dark Surface (TF12)Other (Explain in Remarks)Other (Explain in Remarks)Other (Explain in Remarks)	Sandy	Redox (S5)							Red Parent M	laterial (F21)
Dark Surface (S7) (LRR R, MLRA 149B)Other (Explain in Remarks) 	Strippe	ed Matrix (S6)							Verv Shallow	Dark Surface (TE12)
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: None Depth (inches): Hydric Soil Present? YesNo Remarks: A positive indication of hydric soil was observed. The criterion for hydric soil is met.	Dark S	urface (S7) (LRR R, N	ILRA 1	49B)					Other (Explain	n in Remarks)
Restrictive Layer (if observed):	³ Indicators	s of hydrophytic yeg	etatior	and wetland hyd	rolog	v must h	e nresen	t unless disturbe	d or problematic	·····,
Type: None Hydric Soil Present? Yes No	Postrictivo	Javer (if observed):	ctatioi		10105	y must b		it, uniess distance		
Type: None Depth (inches):	Restrictive	Tupo:		Nono			Ludric	Soil Procont?	v	ion (No
Remarks: A positive indication of hydric soil was observed. The criterion for hydric soil is met.		Type.		None			пуштс	Soli Present?	ľ	esNO
Remarks: A positive indication of hydric soil was observed. The criterion for hydric soil is met.		Depth (Inches):								
	A positive	indication of hydric	soil wa	is observed. The c	riteric	on for hy	dric soil	is met.		

Vegetation Photos



Photo of Sample Plot North Photo of Sample Plot East



Photo of Sample Plot South

Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t City/County:	Sprakers, Mont	gomery County		Sampling Date:	2021-Sept-08
Applicant/Owner: S	unEast			State: NY		Sampling Point: W	-JMP-13_UPL-1
Investigator(s): Jerry	/ Peake, Carso	n Rowe, Abi Light	Sect	ion, Township, Ra	nge: NA	Ą	
Landform (hillslope, te	errace, etc.):	Flat	Local relief	(concave, convex,	, none):	Convex	Slope (%): 0 to 1
Subregion (LRR or MLF	RA): LRR	L	Lat:	42.8573257637	Long:	-74.5159537256	Datum: WGS84
Soil Map Unit Name:	llion silt loar	n 3 to 8 percent slopes				NWI classificat	tion: None
Are climatic/hydrologic	c conditions o	n the site typical for this time	of year?	Yes 🟒 No 🔄	(lf no	, explain in Remark	s.)
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology significan or Hydrology naturally	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst plain an	ances" present? y answers in Remar	Yes _✔ No ks.)

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

Hydrophytic Vegetation Present?	Yes No 🟒								
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No _	If yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. Area is upland, not all three wetland parameters are present.									

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of or	<u>ne is required; check all t</u>	<u>hat apply)</u>	Secondary Indicators (minimum of two required)			
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave Sume 	Water- Aquatii Marl D Hydrog Oxidize Presen Recent Thin M agery (B7) Other urface (B8)	Stained Leaves (B9) c Fauna (B13) eposits (B15) gen Sulfide Odor (C1) ed Rhizospheres on Living Roots (C3) ice of Reduced Iron (C4) : Iron Reduction in Tilled Soils (C6) luck Surface (C7) (Explain in Remarks)	 			
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream g	Yes No Yes No Yes No auge, monitoring well, a	Depth (inches): Depth (inches): Depth (inches): erial photos, previous inspections), i	 Wetland Hydrology Present? f available:	Yes No		
Remarks: The criterion for wetland hydrolog	y is not met. No positive	indication of wetland hydrology was	s observed.			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-13_UPL-1

Tree Stratum (Plot size: 20 ft)	Absolute	Dominant	Indicator	Dominance Test worksh	leet:		
	% Cover	Species?	Status	Number of Dominant Sp	pecies That	2	(A)
1. <i>Tilia americana</i>	60	Yes	FACU	Are OBL, FACW, or FAC:			
2. <i>Tsuga canadensis</i>	30	Yes	FACU	Total Number of Domin	ant Species	9	(B)
3. <i>Quercus rubra</i>	15	No	FACU	Across All Strata:	:		
4. Fagus grandifolia	15	No	FACU	Are OBL_EACW_or_EAC	ecies That	22.2	(A/B)
5. <u>Acer rubrum</u>	10	No	FAC	Prevalence Index works	haat		
6				Total % Cover	neet.	Multiply	Byr.
7					<u>.</u>	v 1 =	<u>-y.</u>
	130	= Total Cov	er	EACW species	5	×1- ×2-	10
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)		_		FACW species	40	×2- ×2-	120
1. Carpinus caroliniana	25	Yes	FAC		205	×	820
2. Fagus grandifolia	10	Yes	FACU			×+- ×	020
3. Acer saccharum	10	Yes	FACU	Column Totals	250	× 3	050 (D)
4. Tsuga canadensis	10	Yes	FACU	Dravalance In	250	(A)	950 (B)
5.				Prevalence inc	dex = B/A =	3.8	
6.				Hydrophytic Vegetation	Indicators:		
7.		·		1- Rapid Test for H	ydrophytic V	egetation/	
	55	= Total Cov	er	2 - Dominance Test is > 50%			
Herb Stratum (Plot size: 5 ft)		-		3 - Prevalence Inde	ex is $\leq 3.0^1$		
1. Fagus grandifolia	40	Yes	FACU	4 - Morphological /	Adaptations	(Provide s	supporting
2 Tiarella cordifolia	15	Yes	FACU	– data in Remarks or on a separate sheet)			
3 Onoclea sensibilis	5	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)			
4			inco	¹ Indicators of hydric soil	l and wetlan	d hydrolog	gy must be
5				present, unless disturbe	ed or probler	nauc	
۶		·			n Strata:		
o		·		Iree – Woody plants 3 in	n. (7.6 cm) or vardloss of b	r more in c aight	liameter at
/				Sapling/shrub Woody	plants loss th	eigilt. han 2 in D	PU and
o		<u> </u>		greater than or equal to) 3.28 ft (1 m) tall.	biranu
10		·		Herb – All herbaceous (r	non-woodv)	plants, reg	ardless of
10				size, and woody plants l	ess than 3.2	8 ft tall.	
12				Woody vines - All wood	y vines great	ter than 3.	28 ft in
12		Tabal Car		height.			
Woody Vine Stratum (Plot size: 20 ft)	60		er	Hydrophytic Vegetation	Present?	/es N	0_∡
1 Vitis riparia	5	Voc	EAC				
יונג וועמוומ ר	ر ر	162	FAC	•			
2							
		<u> </u>					
4							
	5	= Fotal Cov	er	J			
Remarks: (Include photo numbers here or on a separat	e sheet.)						

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC− or drier).

SOIL

Profile Des	cription: (Describe	to the d	epth needed to d	ocun	nent the	indicato	r or confirm the a	bsence of indica	tors.)
Depth	Matrix		Redox	Fea	tures				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0 - 10	10YR 3/4	100		_			Silt Loam	<u> </u>	
10 - 15	10YR 3/4	95	7.5YR 5/8	5	C	Μ	Silt Loam	<u> </u>	
				_					
				_					
				—					
						·			
				—					
¹ Type: C = C	Concentration, D =	Depletic	on, RM = Reduced	Mat	rix, MS =	Masked	Sand Grains. ² L	ocation: PL = Po	re Lining, M = Matrix.
Hydric Soil	Indicators:				_			Indicators for	Problematic Hydric Soils ³ :
Histoso	l (A1)		Polyvalue Bel	ow S	Surface (S	58) (LRR	R, MLRA 149B)	2 cm Muck	: (A10) (LRR K, L, MLRA 149B)
Histic E	pipedon (A2)		Thin Dark Su	face	e (S9) (LRF	R, MLR	A 149B)	Coast Prair	rie Redox (A16) (LRR K, L, R)
Black H	istic (A3)		Loamy Mucky	/ Mir	neral (F1)	(LRR K,	L)	5 cm Muck	y Peat or Peat (S3) (LRR K, L, R)
Hydrog	en Sulfide (A4)		Loamy Gleye	d Ma	itrix (F2)			Dark Surfa	ce (S7) (LRR K, L)
Stratifie	d Layers (A5)		Depleted Mat	trix (F3)			Polyvalue I	Below Surface (S8) (LRR K, L)
Deplete	d Below Dark Surf	ace (A11) Redox Dark S	urfa	ce (F6)			Thin Dark S	Surface (S9) (LRR K, L)
I NICK Da	ark Surface (ATZ)		Depleted Dar	к Su	rtace (F7)		Iron-Mang	anese Masses (F12) (LRR K, L, R)
Sandy N	/IUCKY MINERAL (ST)		Redox Depre	ssior	1S (F8)			Piedmont l	Floodplain Soils (F19) (MLRA 149B)
Sandy C	Eleyed Matrix (S4)							Mesic Spoo	dic (TA6) (MLRA 144A, 145, 149B)
Sandy F	Redox (S5)							Red Parent	t Material (F21)
Strippe	d Matrix (S6)							Verv Shallo	w Dark Surface (TF12)
Dark Su	irface (S7) (LRR R, N	ILRA 14	9B)					Other (Exp	lain in Remarks)
3 Indicators	of budrophytic you	otation	and watland by dr	مامح	u must b	0 procor	t uplace disturbe	• • • • • • • • • • • • •	-
	or nyaropnytic veg	etation	and wettand flydr	olog	y must b	e preser	it, unless disturbe	ed of problemati	ι.
Restrictive	Layer (IT observed): 								
	Туре:		None			Hydric	Soil Present?	Yes	No
	Depth (inches):								
Remarks: No positive	indication of hydr	ic soils v	vas observed. The	crit	erion for	hydric s	oil is not met.		
l									
l									
1									

Vegetation Photos



Soil Photos

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t <u>C</u>	ity/County:	Sprakers, Mor	ntgomery County		Sampling Date: 20	021-Sept-09
Applicant/Owner: S	unEast				State: NY		Sampling Point: W-J	MP-14_PFO-1
Investigator(s): Jerry	Peake, Carso	n Rowe, Abi Light		Se	ection, Township, R	ange: N	4	
Landform (hillslope, te	rrace, etc.):	Depression		Local reli	ef (concave, conve>	, none):	Concave	Slope (%): 2 to 5
Subregion (LRR or MLF	RA): LRR	L		La	t: 42.854216	Long:	-74.509278	Datum: WGS84
Soil Map Unit Name:	Nunda char	inery silt loam, Nu	D				NWI classificati	on: None
Are climatic/hydrologic	conditions o	n the site typical fo	or this time	of year?	Yes 🟒 No _	(If no	o, explain in Remarks	.)
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	_ significant _ naturally	tly disturbed? problematic?	Are "Normal (If needed, ex	Circums kplain an	tances" present? y answers in Remark	Yes 🟒 No s.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🯒 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-14							
Remarks: (Explain alternative procedures he	temarks: (Explain alternative procedures here or in a separate report)									
Covertype is PFO. Area is wetland, all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of o	ne is required; check all	<u>that apply)</u>		Secondary Indicators (minimum of two required)		
✓ Surface Water (A1) ✓ Water-Stained Leaves (B9) ✓ High Water Table (A2) Aquatic Fauna (B13) ✓ Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roo Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)				 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 		
Field Observations:						
Surface Water Present?	Yes 🟒 No	Depth (inches):	1	_		
Water Table Present?	Yes 🟒 No	Depth (inches):	3	Wetland Hydrology Present? Yes No		
Saturation Present?	Yes 🟒 No	Depth (inches):	0			
(includes capillary fringe)						
Describe Recorded Data (stream g Remarks: The criterion for wetland hydrolog	zauge, monitoring well, a	aerial photos, previous insponse	ections), if	available: 		
Remarks: The criterion for wetland hydrolog	ʒy is met. A positive indic	cation of wetland hydrology	was obsei	ved (primary and secondary indicators were prese		

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-14_PFO-1

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test workshe	eet:		
	% Cover	Species?	Status	Number of Dominant Sp	ecies That	4	(A)
1. <i>Carya cordiformis</i>	40	Yes	FAC	Are OBL, FACW, or FAC:			
2. <i>Tsuga canadensis</i>	20	Yes	FACU	Total Number of Domina	int Species	7	(B)
3. <i>Fraxinus americana</i>	10	No	FACU	Across All Strata:			
4. <i>Carya ovata</i>	10	No	FACU	- Are OBL EACW or EAC: 57.1			(A/B)
5. <i>Ulmus americana</i>	10	No	FACW	- Prevalence Index worksh	oot.		
6. <i>Acer saccharum</i>	10	No	FACU	Total % Cover or	f.	Multiply	Bv.
7				- OBL species	<u></u> 0	x 1 =	 ()
	100	= Total Cov	er	FACW species	25	x 2 =	50
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species	80	x 3 =	240
1. Acer saccharum	10	Yes	FACU	- FACLI species	70	× 4 =	280
2. Tsuga canadensis	10	Yes	FACU	- UPL species	0	x 5 =	0
3				- Column Totals	175	(A)	570 (B)
4				Prevalence Ind	ex = B/A =	3.3	370 (8)
5					ndicatore		
6					nuicators.	logatation	
7				1- Rapid Test for Hy		regetation	I
	20	= Total Cov	er	2 - DOMINANCE TEST IS > 50%			
Herb Stratum (Plot size: <u>5 ft</u>)				J - Morphological A	dantations'	1 (Provide	supporting
1. <i>Toxicodendron radicans</i>	25	Yes	FAC	- data in Remarks or on a	senarate sh	(Frovide neet)	Supporting
2. Dryopteris carthusiana	15	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)			
3. <i>Geum canadense</i>	5	No	FAC	¹ Indicators of hydric soil	and wetlan	d hvdrolo	gy must be
4				present, unless disturbed	d or problei	matic	0)
5				Definitions of Vegetation	Strata:		
6				Tree – Woody plants 3 in	. (7.6 cm) oi	r more in	diameter at
7				breast height (DBH), rega	ardless of h	eight.	
8				Sapling/shrub - Woody p	olants less t	han 3 in. I	OBH and
9				greater than or equal to	3.28 ft (1 m) tall.	
10				Herb – All herbaceous (n	on-woody)	plants, re	gardless of
11.				size, and woody plants le	ess than 3.2	8 ft tall.	
12.				Woody vines – All woody	vines great	ter than 3	.28 ft in
	45	= Total Cov	er	neight.			
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)		-		Hydrophytic Vegetation	Present?	res 🟒 N	lo
1. <i>Vitis riparia</i>	10	Yes	FAC				
2.							
3.							
4.		·					
	10	= Total Cov	er				
Pemarks: (Include photo numbers here or on a constant	a shoot)	_			-		
A positive indication of hydrophytic vegetation was obsi	erved (>50)% of domin	ant species	indexed as OBL, FACW. or	FAC).		

SOIL

) <u> </u>	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Tex	ture	Remarks
)-5	10YR 2/2	100	· · · ·				Silty Cla	ay Loam	
- 10	10YR 2/2	85	10YR 4/6	5	С	М	Silty Cla	ay Loam	
- 10	10YR 4/2	10					Silty Cla	ay Loam	
) - 15	10YR 4/2	60	10YR 4/6	10	С	М	Silty Cla	ay Loam	
) - 15	10YR 4/2	35					Silty Cla	ay Loam	
oe: C = C	Concentration, D =	Depletio	on, RM = Reduced	l Matr	rix, MS =	Masked S	and Grains. ²	Location: PL = Pore Lir	ning, M = Matrix.
Iric Soil	Indicators:				6 (6)			Indicators for Prob	lematic Hydric Soils ³ :
Histoso	I (A1)		Polyvalue Be	low S	urface (S	8) (LRR R,	MLRA 149B)	2 cm Muck (A10)) (LRR K, L, MLRA 149B)
nisuc ej Black H	pipedon (AZ) istic (A3)			v Min	(59) (LKK eral (F1) (R, IVILKA	1496)	Coast Prairie Re	edox (A16) (LRR K, L, R)
Hvdrog	en Sulfide (A4)		Loamy Gleve	d Ma	trix (F2)			5 cm Mucky Pea	at or Peat (S3) (LRR K, L, R)
Stratifie	d Layers (A5)		Depleted Ma	itrix (F	=3)			Dark Surface (S	/) (LRR K, L)
Deplete	d Below Dark Surf	ace (A11	l) Redox Dark !	Surfac	ce (F6)			Polyvalue Belov	
Thick Da	ark Surface (A12)		Depleted Da	rk Sur	face (F7)				e Masses (F12) (I RR K R)
Sandy N	/lucky Mineral (S1)		Redox Depre	ession	is (F8)			Piedmont Floor	lplain Soils (F19) (MLRA 149B)
Sandy C	Gleyed Matrix (S4)							Mesic Spodic (T	A6) (MLRA 144A, 145, 149B)
Sandy F	Redox (S5)							Red Parent Mat	erial (F21)
Strippe	d Matrix (S6)							Very Shallow Da	ark Surface (TF12)
Dark Su	irface (S7) (LRR R, N	MLRA 14	9B)					Other (Explain i	n Remarks)
licators	of hydrophytic veg	getation	and wetland hyd	rology	/ must be	e present,	unless disturb	ed or problematic.	
trictive	Layer (if observed)	:							
	Туре:		None			Hydric S	oil Present?	Yes	No
	Depth (inches):								

Hydrology Photos



Vegetation Photos





Soil Photos



Photo of Sample Plot South



Northcentral and Northeast Region -- Version 2.0 Adapted by TRC

Photo of Sample Plot West



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Flat Cree	k Solar Projec	t <u>C</u>	ity/County:	Sprakers, Mont	gomery County		Sampling Date:	2021-Sept-09
Applicant/Owner: S	unEast				State: NY		Sampling Point: <u>N</u>	/-JMP-14_PSS-1
Investigator(s): Jerry Peake, Carson Rowe, Abi Light Section, Township, Range: NA								
Landform (hillslope, te	rrace, etc.):	Depression		Local relie	f (concave, convex,	none):	Concave	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): LRR	L		Lat:	42.8547420449	Long:	-74.5103480815	Datum: WGS84
Soil Map Unit Name:	Fonda muck	y silty clay loam, F	o				NWI classifica	ation: None
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🖌 No (If no, explain in Remarks.)								
Are Vegetation, Are Vegetation,	Soil, Soil,	or Hydrology or Hydrology	_ significant _ naturally p	tly disturbed? problematic?	Are "Normal ((If needed, ex	Circumst plain an	tances" present? y answers in Rema	Yes 🟒 No rks.)

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

Hydrophytic Vegetation Present?	Yes 🟒 No									
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🧹 No							
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-JMP-14							
Remarks: (Explain alternative procedures he	Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is PSS. Area is wetland, all three wetland parameters are present.										

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Livir Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	:
Water Table Present? Yes 🖌 No Depth (inches):	: 5 Wetland Hydrology Present? Yes 🟒 No
Saturation Present? Yes 🏒 No Depth (inches):	: 0
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in Remarks: The criterion for wetland hydrology is met. A positive indication of wetland hydrology	us inspections), if available: drology was observed (primary and secondary indicators were present)

VEGETATION -- Use scientific names of plants.

Sampling Point: W-JMP-14_PSS-1

Tree Stratum (Plot size: 30 ft)	Absolute	Dominant	Indicator	Dominance Test works	sheet:			
	% Cover	Species?	Status Number of Dominant Species Th		Species That	5	(A)	
1. <i>Tsuga canadensis</i>	60	Yes	FACU	Are OBL, FACW, or FAC:				
2. <i>Ulmus americana</i>	30	Yes	FACW	Total Number of Dominant Species		7	(B)	
3. <i>Betula alleghaniensis</i>	20	No FAC Across All Strata:						
4. <u>Acer saccharum</u>	10	No	FACU	Are OBL, FACW, or FAC:		71.4	(A/B)	
S		······································		Prevalence Index work	sheet:			
7		<u> </u>		Total % Cover	<u>of:</u>	<u>Multiply</u>	<u>By:</u>	
/·	120	- Total Cov	or	OBL species	0	x 1 =	0	
Carling/Chrysh Chryshum (Distained 15 ft)	120	- 10tal Cov	er	FACW species	155	x 2 =	310	
Sapiing/Shrub Stratum (Plot Size:)	40	Vee	FAC	FAC species	120	x 3 =	360	
	40	Yes	FAC	FACU species	110	x 4 =	440	
2. Lonicera morrowii	30	Yes	FACU	UPL species	0	x 5 =	0	
3. <u>Carpinus caroliniana</u>	25	Yes	FAC	Column Totals	385	(A)	1110 (B)	
4. <u>Viburnum lentago</u>	10	No	FAC	Prevalence li	ndex = B/A =	2.9		
5. <i>Betula alleghaniensis</i>	10	No	FAC		n Indicators:			
6. <i>Acer saccharum</i>	10	No	FACU	1 Papid Test for	Hydrophytic \	/ogotation		
7	<u> </u>				nyuropnyue v	regetation	I	
	125	= Total Cov	er	\checkmark 2 - Dominiance rest is >50%				
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				3 - Prevalence Index is $\leq 3.0^{\circ}$				
1. Lysimachia nummularia	75	Yes	FACW	4 - Morphologica	a soparato sh		supporting	
2. Impatiens capensis	40	Yes	FACW	Problematic Hydrophytic Vegetation1 (Explain)			(nlain)	
3. Athyrium angustum	15	No	FAC	Indicators of hydric so	nil and wetlan	d bydrolo	av must be	
4. <i>Onoclea sensibilis</i>	10	No	FACW	present, unless disturb	bed or proble	matic	gy must be	
5.		· ·		Definitions of Vegetation	on Strata			
6.	·			Tree - Woody plants 3	in (7.6 cm) or	r more in	diameter at	
7.	·			breast height (DBH), re	pardless of h	eight.		
8		·		Sapling/shrub - Woody	v plants less t	han 3 in. I	OBH and	
0	·			greater than or equal t	to 3.28 ft (1 m) tall.	2 Di l'alla	
10		······································		Herb – All herbaceous	(non-woodv)	plants, re	gardless of	
11				size, and woody plants	less than 3.2	8 ft tall.		
	·	·		Woody vines - All woo	dy vines grea	ter than 3	.28 ft in	
12				height.	, 0			
	140	= lotal Cov	er	Hydrophytic Vegetatic	n Present?			
Woody Vine Stratum (Plot size: <u>30 ft</u>)					in resent	103 <u>v</u> 1	···	
1		·						
2		·						
3								
4								
	0	= Total Cov	er					
Remarks: (Include photo numbers here or on a separa	te sheet.)			-				

Remarks: (Include photo numbers here or on a separate sheet.) A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is \leq 3.00).
SOIL

0 - 4 10YR 2/2 100
4 - 9 10YR 3/2 95 5YR 5/8 5 C M Silty Clay Loam 9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 90 20 10 10 10 Polyalue Blow Surface (S8) (LRR R, MLRA 149B) Indicators for Problematic Hydric Soils ³ : 1/yotric Soil Indicators:
9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 9 - 20 10YR 4/2 90 5YR 5/8 10 C M Silty Clay Loam 90 5YR 5/8 10 C M Silty Clay Loam Silty Clay Loam 90 5YR 5/8 10 C M Silty Clay Loam Silty Clay Loam 90 5YR 5/8 10 C M Silty Clay Loam Silty Clay Loam 90 5YR 5/8 10 Silty Clay Loam Silty Clay Loam Silty Clay Loam 90 5YR 5/8 9 Silty Clay Loam Silty Clay Loam Silty Clay Loam 90 5YR 5/8 9 9 Silty Clay Loam Silty Clay Loam Silty Clay Loam 90 50 10 7 Polyvalue Below Surface (S8) (LR R, MLRA 149B) Silty Clay Loamy Gleyed Matrix (F2) Coast Prairie Redox (A16)
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils?:
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils?:
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. /dric Soil Indicators: Indicators for Problematic Hydric Soils ³ : _ Histosol (A1) _ Polyvalue Below Surface (S8) (LRR R, MLRA 149B) _ Histic Epipedon (A2) _ Thin Dark Surface (S9) (LRR R, MLRA 149B) _ Black Histic (A3) _ Loamy Mucky Mineral (F1) (LRR K, L) _ Hydrogen Sulfide (A4) _ Loamy Gleyed Matrix (F2) _ Stratified Layers (A5) _ Depleted Matrix (F3) _ Depleted Below Dark Surface (A11) // Redox Dark Surface (F6) _ Depleted Dark Surface (F7) _ Thin Dark Surface (A12) _ Depleted Dark Surface (F7) _ Thin Dark Surface (S1) _ Redox Depressions (F8)
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. yrdic Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Thin Dark Surface (F3)
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. rdric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) ✓ Depleted Matrix (F3) Depleted Below Dark Surface (A11) ✓ Redox Dark Surface (F6) — Polyvalue Below Surface (S9) (LRR K, L) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8)
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. yrdric Soil Indicators: Indicators for Problematic Hydric Soils ³ : _ Histosol (A1) _ Polyvalue Below Surface (S8) (LRR R, MLRA 149B) _ Histic Epipedon (A2) _ Thin Dark Surface (S9) (LRR R, MLRA 149B) _ Black Histic (A3) _ Loamy Mucky Mineral (F1) (LRR K, L) _ Hydrogen Sulfide (A4) _ Loamy Gleyed Matrix (F2) _ Stratified Layers (A5) _ Depleted Matrix (F3) _ Depleted Below Dark Surface (A11) // Redox Dark Surface (F6) _ Depleted Dark Surface (F7) _ Thick Dark Surface (A12) _ Depleted Dark Surface (F7) _ Sandy Mucky Mineral (S1) _ Redox Depressions (F8)
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. yrdric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) ✓ Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8)
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ²Location: PL = Pore Lining, M = Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) ✓ Depleted Matrix (F3) Depleted Below Dark Surface (A11) Pelyedox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8)
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. 2Location: PL = Pore Lining, M = Matrix. yric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) ✓ Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8)
rdric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Opeleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8)
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149E) 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) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Dark Surface (S7) (LRR K, L) Stratified Layers (A5) ✓ Depleted Matrix (F3) Depleted Surface (A11) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (F7) Thick Dark Surface (S1) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR K, L)
_ Depleted Below Dark Surface (A11) _ Redox Dark Surface (F6) Polyvalue Below Surface (S9) (LRR K, L) _ Thick Dark Surface (A12) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) _ Sandy Mucky Mineral (S1) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR K, L)
_ Thick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Manganese Masses (F12) (LRR K, Sandy Mucky Mineral (S1) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR K, And
Sandy Mucky Mineral (S1) Redox Depressions (F8)
Piedmont Floodplain Soils (F19) (MLR/
_ Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144A, 145, 1
_Sandy Redox (S5) Red Parent Material (F21)
Other (Explain in Remarks)
dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
strictive Layer (if observed):
Type:None Hydric Soil Present? Yes _∠_ No
Depth (inches):

Vegetation Photos





Soil Photos



Photo of Sample Plot North



Photo of Sample Plot East

