	Matrix	e deptil heeded to	o document the indi	cator or co Features	onfirm the at	sence o	f indicators.)	
Depth (inches)	Color (moist)	% C	olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
, ,								Remarks
0-20"	10yr 5/2	98	10yr 5/4	2	С	М	Silty Clay Loam	
							·	
							·	
Type: C=C	Concentration, D=Depletio	n, RM=Reduced M	Atrix, CS=Covered o	r Coated S	and Grains.	² Locati	on: PL=Pore Lining,	M=Matrix.
ydric Soil	Indicators ³ :					Test	Indicators of Hydrid	soils:
Histoso	ol (A1)	_	Sandy Gleyed N	Matrix (S4)			Iron-Mangan	ese Masses (F12)
Histic E	Epipedon (A2)	-	Sandy Redox (S	S5)			Very Shallow	/ Dark Surface (F22)
Black H	Histic (A3)	-	Stripped Matrix	(S6)			Other (Expla	in in Remarks)
Hydroc	gen Sulfide (A4)	-	Dark Surface (S					
	ed Layers (A5)	-	Loamy Mucky N					
	luck (A10)	-	Loamy Gleyed I					
	ed Below Dark Surface (A	.11)	X Depleted Matrix					
			Redox Dark Su				³ The hydric ceil ind	icators have been updated to
	Dark Surface (A12)	-		()	2)		,	
	Mucky Mineral (S1)	-	Depleted Dark S)			Field Indicators of Hydric Soils
5 cm N	lucky Peat or Peat (S3)	-	Redox Depress	lions (⊦8)			in the United St	ates, Version 8.0, 2016.
estrictive I	Layer (if observed):							
Type:								
Depth (inches):					Hvdric	Soil Present?	Yes X No
YDROL	OGY drology Indicators:							
•								
	cators (minimum of one is	s required: check a	ll that apply)				Secondary Indicate	ors (minimum of two required)
X Surface	cators (minimum of one is e Water (A1)	s required: check a		Leaves (B9)			ors (minimum of two required) Cracks (B6)
	e Water (A1)	s required: check a	Water-Stained I	•)		Surface Soil	Cracks (B6)
X High W	e Water (A1) /ater Table (A2)	required: check a - -	Water-Stained I	(B13))		Surface Soil Drainage Pa	Cracks (B6) tterns (B10)
X High W X Satura	e Water (A1) Vater Table (A2) tion (A3)	s required: check a - - -	Water-Stained I Aquatic Fauna True Aquatic Pl	(B13) ants (B14)	,		Surface Soil Drainage Pa Dry-Season	Cracks (B6) tterns (B10) Water Table (C2)
X High W X Satura Water	e Water (A1) /ater Table (A2) tion (A3) Marks (B1)	s required: check a - - -	Water-Stained I Aquatic Fauna True Aquatic Pl Hydrogen Sulfic	(B13) ants (B14) de Odor (C ⁻	1)	(00)	Surface Soil Drainage Pa Dry-Season Crayfish Bur	Cracks (B6) tterns (B10) Water Table (C2) rows (C8)
K High W K Satura Water Sedime	e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	s required: check a - - - -	Water-Stained I Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizos	(B13) ants (B14) de Odor (C ⁻ spheres on) Living Roots	- (C3)	Surface Soil Drainage Pa Dry-Season Crayfish Burn Saturation Vi	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9)
K High W K Satura Water Sedime Drift De	e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	s required: check a - - - - - - - - - - - - - -	Water-Stained I Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizos Presence of Re	(B13) ants (B14) de Odor (C ⁻ spheres on educed Iron) Living Roots (C4)	. ,	Surface Soil Drainage Pa Dry-Season Crayfish Buri Saturation Vi X Stunted or S	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1)
K High W K Satura Water Sedime Drift De Algal M	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4)	s required: check a - - - - - - - - - - - - - - - - - - -	Water-Stained I Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Rec	(B13) ants (B14) de Odor (C ² spheres on educed Iron duction in T) Living Roots (C4)	. ,	Surface Soil Drainage Pa Dry-Season Crayfish Buri Saturation Vi X Stunted or S X Geomorphic	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
X High W X Satura Water Sedime Drift De Algal M	e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	s required: check a - - - - - - - - - - - - - - - - - - -	Water-Stained I Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7)) Living Roots (C4)	. ,	Surface Soil Drainage Pa Dry-Season Crayfish Buri Saturation Vi X Stunted or S	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
K High W K Satura Water Sedime Drift De Algal M Iron De	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4)		Water-Stained I Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Rec	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7)) Living Roots (C4)	. ,	Surface Soil Drainage Pa Dry-Season Crayfish Buri Saturation Vi X Stunted or S X Geomorphic	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
X High W X Satura Water Sedime Drift De Algal M Iron De Inunda	e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5)	- - - - - - - - - - - - - - - - - - -	Water-Stained I Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa	(B13) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9)) Living Roots (C4) ïlled Soils (C	. ,	Surface Soil Drainage Pa Dry-Season Crayfish Buri Saturation Vi X Stunted or S X Geomorphic	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
X High W X Satura Water Sedime Drift De Algal M Iron De Inunda Sparse	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Imaged	- - - - - - - - - - - - - - - - - - -	Water-Stained I Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa Gauge or Well I	(B13) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9)) Living Roots (C4) ïlled Soils (C	. ,	Surface Soil Drainage Pa Dry-Season Crayfish Buri Saturation Vi X Stunted or S X Geomorphic	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
X High W X Satura Water Drift De Algal M Iron De Inunda Sparse	e Water (A1) Vater Table (A2) Vater Table (A2) Marks (B1) ent Deposits (B2) eposits (B3) Vat or Crust (B4) eposits (B5) tition Visible on Aerial Imagely Vegetated Concave Su vations:	gery (B7) Irface (B8)	Water-Stained I Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa Gauge or Well I Other (Explain i	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9) in Remarks) Living Roots (C4) ïlled Soils (C	. ,	Surface Soil Drainage Pa Dry-Season Crayfish Buri Saturation Vi X Stunted or S X Geomorphic	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
X High W X Satura Water Drift De Algal M Iron De Inunda Sparse eld Obser urface Wat	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Imaged ety Vegetated Concave Su vations: ter Present? Y	gery (B7) Irface (B8) ′es NoX	Water-Stained I Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Rec Thin Muck Surfa Gauge or Well I Other (Explain i	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9) in Remarks) Living Roots (C4) ïlled Soils (C	. ,	Surface Soil Drainage Pa Dry-Season Crayfish Buri Saturation Vi X Stunted or S X Geomorphic	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
X High W X Satura Water Sedime Drift De Algal M Iron De Inunda Sparse eld Obser urface Wat /ater Table	e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imaged ely Vegetated Concave Su vations: ter Present? Y	gery (B7) Irface (B8) /esNoX /esNo	Water-Stained I Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa Gauge or Well I Other (Explain i Depth (inches): Depth (inches):	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9) in Remarks <u>N/A</u> Surface) Living Roots (C4) illed Soils (C	6)	Surface Soil Drainage Pa Dry-Season Crayfish Burn Saturation Vi X Stunted or S X Geomorphic X FAC-Neutral	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
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X High W X Satura Water Drift De Algal M Iron De Inunda Sparse eld Obser vater Table vater Table	e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imaged ely Vegetated Concave Su vations: ter Present? Y Present? Y present? Y pillary fringe)	gery (B7) Irface (B8) 'es <u>X</u> No <u>X</u> 'es <u>X</u> No <u></u>	Water-Stained I Aquatic Fauna (True Aquatic PI Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa Gauge or Well I Other (Explain i Depth (inches): Depth (inches):	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9) in Remarks <u>N/A</u> <u>Surface</u> Surface) Living Roots (C4) ïilled Soils (C) Wetland	6) Hydrolog	Surface Soil Drainage Pa Dry-Season Crayfish Burn Saturation Vi X Stunted or S X Geomorphic X FAC-Neutral	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
X High W X Satura Water Drift De Algal M Iron De Inunda Sparse Geld Obser Surface Water Vater Table Saturation P ncludes ca	e Water (A1) /ater Table (A2) /ater Table (A2) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) ltion Visible on Aerial Imagely Vegetated Concave Su vations: ter Present? Y Present? Y	gery (B7) Irface (B8) 'es <u>X</u> No <u>X</u> 'es <u>X</u> No <u></u>	Water-Stained I Aquatic Fauna (True Aquatic PI Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa Gauge or Well I Other (Explain i Depth (inches): Depth (inches):	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9) in Remarks <u>N/A</u> <u>Surface</u> Surface) Living Roots (C4) ïilled Soils (C) Wetland	6) Hydrolog	Surface Soil Drainage Pa Dry-Season Crayfish Burn Saturation Vi X Stunted or S X Geomorphic X FAC-Neutral	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
X High W X Satura Water Drift De Algal M Iron De Inunda Sparse eld Obser vater Table vater Table	e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imaged ely Vegetated Concave Su vations: ter Present? Y Present? Y present? Y pillary fringe)	gery (B7) Irface (B8) 'es <u>X</u> No <u>X</u> 'es <u>X</u> No <u></u>	Water-Stained I Aquatic Fauna (True Aquatic PI Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa Gauge or Well I Other (Explain i Depth (inches): Depth (inches):	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9) in Remarks <u>N/A</u> <u>Surface</u> Surface) Living Roots (C4) ïilled Soils (C) Wetland	6) Hydrolog	Surface Soil Drainage Pa Dry-Season Crayfish Burn Saturation Vi X Stunted or S X Geomorphic X FAC-Neutral	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
X High W X Satura Water Drift De Algal M Iron De Inunda Sparse Geld Obser Surface Water Vater Table Saturation P ncludes ca	e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imaged ely Vegetated Concave Su vations: ter Present? Y Present? Y present? Y pillary fringe)	gery (B7) Irface (B8) 'és X No X 'és X No	Water-Stained I Aquatic Fauna (True Aquatic PI Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa Gauge or Well I Other (Explain i Depth (inches): Depth (inches):	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9) in Remarks <u>N/A</u> <u>Surface</u> Surface) Living Roots (C4) ïilled Soils (C) Wetland	6) Hydrolog	Surface Soil Drainage Pa Dry-Season Crayfish Burn Saturation Vi X Stunted or S X Geomorphic X FAC-Neutral	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
X High W X Satura Water Sedime Drift De Algal M Iron De Inunda Sparse eld Obser urface Wat /ater Table aturation P ncludes ca escribe Re	e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imaged ely Vegetated Concave Su vations: ter Present? Y Present? Y present? Y pillary fringe)	gery (B7) Irface (B8) 'és X No X 'és X No	Water-Stained I Aquatic Fauna (True Aquatic PI Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa Gauge or Well I Other (Explain i Depth (inches): Depth (inches):	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9) in Remarks <u>N/A</u> <u>Surface</u> Surface) Living Roots (C4) ïilled Soils (C) Wetland	6) Hydrolog	Surface Soil Drainage Pa Dry-Season Crayfish Burn Saturation Vi X Stunted or S X Geomorphic X FAC-Neutral	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
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High W Satura Water Sedime Drift De Algal M Iron De Inunda Sparse eld Obser urface Wat ater Table aturation P acludes ca escribe Re	e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Imaged ely Vegetated Concave Su vations: ter Present? Y Present? Y present? Y pillary fringe)	gery (B7) Irface (B8) 'és X No X 'és X No	Water-Stained I Aquatic Fauna (True Aquatic PI Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfa Gauge or Well I Other (Explain i Depth (inches): Depth (inches):	(B13) ants (B14) de Odor (C spheres on duced Iron duction in T ace (C7) Data (D9) in Remarks <u>N/A</u> <u>Surface</u> Surface) Living Roots (C4) ïilled Soils (C) Wetland	6) Hydrolog	Surface Soil Drainage Pa Dry-Season Crayfish Burn Saturation Vi X Stunted or S X Geomorphic X FAC-Neutral	Cracks (B6) tterns (B10) Water Table (C2) rows (C8) sible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
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Project/Site:	Republic				City/County	/: Republic/Sene	ca	Si	ampling Date: 5/1	1/2017
Applicant/Owner:	Apex Clean Energy				State	e: OH	Sampling Point:		woh-262-wet	
Investigator(s):	Ben Hess & Dave Glista					Section, Townsh	ip, Range:			
Landform (hillslope	, terrace, etc.): Sum	mit				Loca	al relief (concave, conve	ex, none): <u>cor</u>	ncave	
Slope (%):	Lat:	41	.160756		Long:	-	82.961858		Datum: NAD83 U	JTM16N
Soil Map Unit Name	e:Pa							VWI classifica	ation: none	
Are climatic / hydro	logic conditions on the site typical for th	nis time of year?			Yes	X No	(If no, explain in	Remarks.)		
Are Vegetation	N , Soil	N , or Hydrolog	ay N	significantly dis	sturbed?	Are "Norm	nal Circumstances" pres	sent?	Yes X No	
Are Vegetation	N , Soil	N , or Hydrolog	iy N	naturally proble	ematic?	(If needed	, explain any answers i	n Remarks.)		
SUMMARY OF	FINDINGS Attach site map	showing sampling p	oint location	s, transects, in	nportant featu	ires, etc.				
Hydrophytic Veg	getation Present?	Yes >	[No	Is the	Sampled Ar	ea			
Hydric Soil Pres	sent?	Yes		No	withi	n a Wetland?	•	Yes x	No	
Wetland Hydrol	logy Present?	Yes >	[No	_					
Remarks:										
VEGETATION	Use scientific names of plan	nts.		Absolute	Dominant	Indicator				
Tree Stratum (Plot	size: 30' radius)			Absolute % Cover	Dominant Species?	Status	Dominance Test w	orksheet:		
1. Acer saccharin				10%	No	FACW	Dominance rest w	Sinoneet.		
2. Acer rubrum				25%	Yes	FAC	Number of Dominan	Species		
3. Quercus palust	tris			75%	Yes	FACW	That Are OBL, FAC	V, or FAC:	5	(A)
4. Tilia americana	1			5%	No	FACU				
5.							Total Number of Dor	ninant		
-				115%	= Total Cover	·	Species Across All S	itrata:	5	(B)
Sapling/Shrub Strat	tum (Plot size: 15' radius)						Percent of Dominant	Species		
1. Ilex verticillata				30%	Yes	FACW	That Are OBL, FAC	V, or FAC:	100%	(A/B)
2. Fraxinus penns	sylvanica			5%	No	FACW				
3. Acer rubrum				5%	No	FAC				
4							Prevalence Index w	orksheet:		
5.						·		_		
-				40%	= Total Cover		Total % Cov That Are OBL, FACV		Multiply	by: A/B
Herb Stratum (Plot	t size: 5' radius)						OBL species	35%	x1 = 0.	35
1. Cinna arundina				5%	No	FACW	FACW species	125%		.5
2. Galium tinctoriu				10%	No	OBL	FAC species	60%		.8
3. Carex tribuloide				25%	Yes	OBL	FACU species	5%		.2
4. Symphyotrichu				20%	Yes	FAC	UPL species		x5 =	
5. Carex blanda				5%	No	FAC	Column Totals:	2.25	(A) 4.	85 (B)
6. Toxicodendron	radicans			5%	No	FAC	-			
7.						·	Prevalence	e Index = B/A	.= 2.16	
8.										
9.										
10						·	Hydrophytic Veget	ation Indicate	ors:	
11										
12.									ytic Vegetation	
13							X 2-Dominand			
14						·		e Index is ≤3		
15.									ons ¹ (Provide sup	porung
16.						·			separate sheet) Vegetation ¹ (Expl	ain)
17.									vegetation (Expl	ani
18 19.						·	¹ Indicators of hydric	soil and wetla	nd hydrology mus	ł
20.						·	be present, unless d			
				70%	= Total Cover	·	be present, unless d	istarbed or pr	obiernatio.	
L				1070						
Woody Vine Stratu	m (Plot size: 30' radius)						Hydrophytic			
1.	· · · ·						Vegetation			
2.							Present?	Yes >	No	
					= Total Cover	·				
					_					
Remarks: (Include	photo numbers here or on a separate	sheet.)								

	•	o the depth neede	d to document the i		onfirm the a	bsence c	of indicators.)	
Depth (inchos)	Matrix			dox Features	Type ¹	Loc ²	_ Texture	Domestic
(inches)	Color (moist)	%	Color (moist)	%	туре	LOC		Remarks
0-6"	10yr 3/1	100					Silt Loam	
5-20"	10yr 5/2	95	10yr 5/6	5	С	М	Silty Clay Loam	
	anagentration D=Dar	lation DM-Daduas	d Matrix, CS=Cavara	d or Cootod S	and Crains	² 1 aget	ion: DI = Doro Lining	M-Motrix
Hydric Soil I		Dietion, RM=Reduce	d Matrix, CS=Covere	d or Coaled S	sand Grains.		ion: PL=Pore Lining, t Indicators of Hydri	
Histoso			Sandy Gleve	ed Matrix (S4)			•	nese Masses (F12)
	pipedon (A2)		Sandy Redo					v Dark Surface (F22)
	listic (A3)		Stripped Ma					ain in Remarks)
	. ,							
	en Sulfide (A4)		Dark Surfac	()	`			
	ed Layers (A5)			ky Mineral (F1				
	uck (A10)			ed Matrix (F2))			
	ed Below Dark Surface	ce (A11)	X Depleted Ma	. ,			3	
	oark Surface (A12)			Surface (F6)				dicators have been updated to
	Mucky Mineral (S1)			ark Surface (F	7)			e Field Indicators of Hydric Soils
5 cm M	ucky Peat or Peat (S	3)	Redox Depr	essions (F8)			in the United S	<i>tates</i> , Version 8.0, 2016.
Restrictive L	ayer (if observed):							
Type:								
Depth (i	nches):					Hydric	Soil Present?	Yes X No
HYDROL Wetland Hyd	OGY Irology Indicators:							
Primary India	cators (minimum of o	ne is required: chec	k all that apply)				Secondary Indicat	ors (minimum of two required)
X Surface	e Water (A1)		X Water-Stain	ed Leaves (B	9)		Surface Soil	Cracks (B6)
X High W	ater Table (A2)		Aquatic Fau	na (B13)			Drainage Pa	atterns (B10)
	ion (A3)			c Plants (B14))			Water Table (C2)
Water	Marks (B1)		Hydrogen S	ulfide Odor (C	;1)		Crayfish Bur	rows (C8)
	ent Deposits (B2)			izospheres or		s (C3)		isible on Aerial Imagery (C9)
	eposits (B3)			Reduced Iror	•	()		Stressed Plants (D1)
	lat or Crust (B4)			Reduction in	``'	26)		Position (D2)
	posits (B5)		Thin Muck S			50)	X FAC-Neutral	(<i>)</i>
	tion Visible on Aerial	Imageny (B7)		ell Data (D9)				
	ly Vegetated Concav			ain in Remarks	s)			
·	, ,				-,			
Field Observ			Danth (inches					
Surface Wat		Yes X No	Depth (inches	/				
Water Table		Yes X No	Depth (inches)AL. (1		and Data a sector	Maa Y N
Saturation P		Yes X No	Depth (inches): Surface	Wetland	i Hydrolo	gy Present?	Yes X No
(includes cap	, ,							
Describe Re	corded Data (stream	gauge, monitoring	well, aerial photos, pr	evious inspec	tions), if avai	llable:		
Remarks:								

Project/Site:	Republic			City/County	: Republic/Senec	ca Sampling Date: 5/11/2017
Applicant/Owner:	Apex Clean Energy			-	: OH	Sampling Point: woh-263-wet
Investigator(s):	Ben Hess & Dave Glista				Section, Townsh	ip, Range:
Landform (hillslope,	terrace, etc.):	Summit				cal relief (concave, convex, none): concave
Slope (%):	La	at: 41.1622		Long:		-82.9602 Datum: NAD83 UTM16N
Soil Map Unit Name						NWI classification: none
	logic conditions on the site typica	al for this time of year?		Yes	X No	
Are Vegetation	N , Soil	N , or Hydrology N	significantly dist			al Circumstances" present? Yes X No
Are Vegetation	N , Soil	N , or Hydrology N	naturally proble		(If needed,	explain any answers in Remarks.)
-	FINDINGS Attach site	map showing sampling point locations				
	getation Present?	Yes x	No	-	Sampled Are	
Hydric Soil Pres		Yes X	No		n a Wetland?	
Wetland Hydrol		Yes x	No	-		
Remarks: VEGETATION	Use scientific names o	of plants.	Absolute	Dominant	Indicator	
Tree Stratum (Plot	size: 30' radius)		% Cover	Species?	Status	Dominance Test worksheet:
1. Acer rubrum	<i>'</i>		20%	Yes	FAC	
2. Quercus palust	ris		10%	Yes	FACW	Number of Dominant Species
3. Quercus rubra			10%	Yes	FACU	That Are OBL, FACW, or FAC: 8 (A)
4. Carya laciniosa	1		5%	No	FACW	
5.						Total Number of Dominant
			45%	= Total Cover		Species Across All Strata: 10 (B)
Sapling/Shrub Strat	um (Plot size: 15' radius)					Percent of Dominant Species
1. Carpinus caroli	niana		25%	Yes	FAC	That Are OBL, FACW, or FAC: 80% (A/B)
2. Acer saccharun	n		10%	Yes	FACU	
3. Fraxinus penns	ylvanica		10%	Yes	FACW	
4.						Prevalence Index worksheet:
5.						
			45%	= Total Cover		Total % Cover of: Multiply by:
						That Are OBL, FACW, or FAC: A/B
Herb Stratum (Plot	size: 5' radius)					OBL species 10% x1 = 0.1
1. Cinna arundina	cea		10%	Yes	FACW	FACW species 65% x2 = 1.3
2. Carex blanda			10%	Yes	FAC	FAC species 60% x3 = 1.8
3. Carex shortiana			30%	Yes	FACW	FACU species 20% x4 = 0.8
4. Glyceria striata			10%	Yes	OBL	UPL species x5 =
5. Cornus racemo	sa		5%	No	FAC	Column Totals: <u>1.55</u> (A) <u>4</u> (B)
6						
7						Prevalence Index = B/A = 2.58
8						
9						
10						Hydrophytic Vegetation Indicators:
11						4 Deniel Test for University in Manual 11
12						1-Rapid Test for Hydrophytic Vegetation
13.						$\frac{\textbf{X}}{\textbf{X}}$ 2-Dominance Test is >50% $\frac{\textbf{X}}{\textbf{X}}$ 3-Prevalence Index is $\leq 3.0^{1}$
14 15.			·			4-Morphological Adaptations ¹ (Provide supporting
						data in Remarks or on a separate sheet)
16 17.						Problematic Hydrophytic Vegetation ¹ (Explain)
18.			·····			
19.			·····			¹ Indicators of hydric soil and wetland hydrology must
20.						be present, unless disturbed or problematic.
			65%	= Total Cover		
L			0070			<u> </u>
Woody Vine Stratur	n (Plot size: 30' radius)					Hydrophytic
1.	,					Vegetation
2.						Present? Yes X No
				= Total Cover		
				-		
Remarks: (Include	photo numbers here or on a sep	arate sheet.)				•

Profile Desc	ription: (Describe to	the depth neede	d to document the in	dicator or c	onfirm the a	bsence o	f indicators.)	
Depth	Matrix		Rec	lox Features			_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4"	10yr 3/1	100					Silty Clay Loam	
4-20"	10yr 5/2	95	10yr 5/6	5	С	М	Silty Clay Loam	
							. <u> </u>	
							·	
· · · ·	oncentration, D=Deple	tion, RM=Reduce	ed Matrix, CS=Covere	d or Coated S	Sand Grains.	² Locati	on: PL=Pore Lining,	M=Matrix.
Hydric Soil I						Test	t Indicators of Hydri	
Histoso			Sandy Gleye					ese Masses (F12)
	pipedon (A2)		Sandy Redo					v Dark Surface (F22)
	listic (A3)		Stripped Mat				Other (Expla	in in Remarks)
	en Sulfide (A4)		Dark Surface	. ,				
	d Layers (A5)		Loamy Muck					
	uck (A10)	(Loamy Gleye)			
	ed Below Dark Surface	(A11)	X Depleted Ma				³ The buddie esilia	diantana kawa kana wadatadita
	ark Surface (A12)		Redox Dark		7			dicators have been updated to
	Mucky Mineral (S1) ucky Peat or Peat (S3)		Depleted Da Redox Depre	-	7)			e Field Indicators of Hydric Soils tates, Version 8.0, 2016.
				5510115 (1 0)			in the onited S	
	ayer (if observed):							
Type:						11	0 - 11 Day 10	
Depth (i	ncnes):					Hyaric	Soil Present?	Yes X No
Remarks:								
HYDROL	DGY							
Wetland Hyd	rology Indicators:							
Primary India	ators (minimum of one	e is required: cheo	ck all that apply)				Secondary Indicate	ors (minimum of two required)
X Surface	Water (A1)		X Water-Staine	ed Leaves (B	9)		Surface Soil	
X High W	ater Table (A2)		Aquatic Faur	na (B13)			Drainage Pa	tterns (B10)
X Saturat			True Aquatic)			Water Table (C2)
	Marks (B1)		Hydrogen Su				Crayfish Bur	
Sedime	nt Deposits (B2)		Oxidized Rhi			s (C3)	Saturation V	isible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence of	Reduced Iror	n (C4)		Stunted or S	tressed Plants (D1)
Algal M	at or Crust (B4)		Recent Iron I	Reduction in	Tilled Soils (C6)	X Geomorphic	Position (D2)
	posits (B5)		Thin Muck S		,	,	X FAC-Neutral	
Inundat	ion Visible on Aerial In	nagery (B7)	Gauge or We	ell Data (D9)				
	y Vegetated Concave			in in Remark	s)			
		. /						
Field Observ Surface Wat			Danth (inchas)					
Water Table		Yes X No Yes X No	Depth (inches) Depth (inches)					
Saturation P		Yes X No	Depth (inches)		Wetland	Hydrolo	gy Present?	Yes X No
(includes car			Bopur (mones)	. Oundoo	Wettane	i riyarolo	gyrresenti	
· · · ·	corded Data (stream g	auge, monitoring	well, aerial photos, pr	evious inspe	ctions), if ava	ilable:		
			,		,,			
Remarks:								

Project/Site:	Repbulic Wind Farm					City/County	/: Seneca		Sampling Date: 12/4/2017
Applicant/Owner:	Apex Clean Energy					-	: OH	Sampling Point:	who-264-upl
Investigator(s):	BRH						Section, Townsh		
Landform (hillslope,	terrace, etc.):	Stream Terrace						al relief (concave, convex, none): c	onvex
Slope (%):	0%	Lat:	41.16905			Long:		-82.893	Datum: WGS84
Soil Map Unit Name	: Pa							NWI classifie	
Are climatic / hydrole	ogic conditions on the s	ite typical for this time of year	?			Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	N	, Soil N	, or Hydrology	N	significantly dist	urbed?	Are "Norma	al Circumstances" present?	Yes X No
Are Vegetation	N	, Soil N	, or Hydrology	N	naturally probler	matic?	(If needed,	explain any answers in Remarks.)	
SUMMARY OF	FINDINGS Atta	ch site map showing	sampling point loo	cations, tr	ansects, im	portant featu	res, etc.		
	getation Present?		Yes	N		-	Sampled Ar	ea	
Hydric Soil Pres			Yes	N	o X		n a Wetland?		No x
Wetland Hydrol	ogy Present?		Yes	N	o X	-			
Remarks:	Use scientific n	ames of plants.							
					Absolute	Dominant	Indicator		
Tree Stratum (Plot :	size: 30' radius)				% Cover	Species?	Status	Dominance Test worksheet:	
1. Prunus serotina	1				10%	Yes	FACU		
2. Fagus grandifoli	ia				20%	Yes	FACU	Number of Dominant Species	
3. Ostrya virginian	а				10%	Yes	FACU	That Are OBL, FACW, or FAC:	(A)
4. Carya ovata					10%	Yes	FACU		
5. Quercus rubra					10%	Yes	FACU	Total Number of Dominant	
					60%	= Total Cover		Species Across All Strata:	<u> </u>
1									
-	um (Plot size: 15' radiu	s)						Percent of Dominant Species	
1. Acer saccharum					50%	Yes	FACU	That Are OBL, FACW, or FAC:	0% (A/B)
2. Fagus grandifoli	ia				20%	Yes	FACU		
3									
4					·	·	·	Prevalence Index worksheet:	
5.					700/	Tatal Oanna	·	Tatal % Oaves af	M
					70%	= Total Cover		Total % Cover of: That Are OBL, FACW, or FAC:	Multiply by: A/B
Herb Stratum (Plot	size: 5' radius)							OBL species	x1 =
1. Symphyotrichur					2%	No	FACW	FACW species 2%	x2 = 0.04
2. Acer saccharum					10%	Yes	FACU	FAC species	x3 =
3.							·	FACU species 140%	x4 = 5.6
4.								UPL species	x5 =
5.								Column Totals: 1.42	(A) 5.64 (B)
6.									
7.								Prevalence Index = B	/A = 3.97
8									
9									
10								Hydrophytic Vegetation Indicate	ors:
11									
12								1-Rapid Test for Hydrop	
13								2-Dominance Test is >5	
14.								3-Prevalence Index is ≤3	
15					·		· <u> </u>		ions ¹ (Provide supporting
16					·			data in Remarks or on a	
17								Problematic Hydrophytic	c vegetation (Explain)
18.					·		·	¹ Indicators of hydric soil and wetla	
19					·		·		
20					12%	- Total Causer	· <u> </u>	be present, unless disturbed or p	
L					12%	= Total Cover			
Woody Vine Stratum	n (Plot size: 30' radius							Hydrophytic	
	1 (1 101 3126. 30 1adius							Hydrophytic Vegetation	
1 2.					·			Present? Yes	No. X
£					·	= Total Cover	·	1050iii: 105_	NoX
						- 1010100701			
Remarks: (Include r	photo numbers here or	on a separate sheet.)						1	
		,							

Profile Desc	ription: (Describe to t	the depth needed t	o document the in	dicator or co	onfirm the ab	osence of	indicators.)	
Depth	Matrix		Red	ox Features				
(inches)	Color (moist)	% C	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8"	10yr 5/2	100					Silt Loam	
8-20"	10yr 5/4	100					Silt Loam	
	- ,							
	oncentration, D=Deplet	tion, RM=Reduced I	Matrix, CS=Covered	or Coated S	and Grains.	² Locatio	on: PL=Pore Lining	, M=Matrix.
Hydric Soil I						Test	Indicators of Hydr	
Histoso			Sandy Gleyed					nese Masses (F12)
	pipedon (A2)		Sandy Redox					w Dark Surface (F22)
	listic (A3)	•	Stripped Matr				Other (Expla	ain in Remarks)
	en Sulfide (A4)	•	Dark Surface	. ,				
	d Layers (A5)		Loamy Mucky)			
	uck (A10) d Below Dark Surface	(A11)	Loamy Gleye					
· · ·	ark Surface (A12)	(ATT)	Depleted Mat Redox Dark S				³ The hydric coil in	dicators have been updated to
	Mucky Mineral (S1)		Depleted Dark		7)			e Field Indicators of Hydric Soils
	ucky Peat or Peat (S3)	·	Redox Depre		()			States, Version 8.0, 2016.
				5510115 (1 0)				
	ayer (if observed):							
Type:						Liveria (Coll Drocont?	
Depth (ii						Hyune s	Soil Present?	Yes <u>No X</u>
Remarks:								
HYDROLO	DGY							
Wetland Hyd	rology Indicators:						_	
Primary Indic	ators (minimum of one	is required: check a	all that apply)				Secondary Indicat	tors (minimum of two required)
Surface	Water (A1)		Water-Staine	d Leaves (B§	9)		Surface Soi	l Cracks (B6)
High W	ater Table (A2)		Aquatic Faun	a (B13)			Drainage Pa	atterns (B10)
Saturati	ion (A3)		True Aquatic	Plants (B14)			Dry-Season	Water Table (C2)
Water N	/larks (B1)		Hydrogen Sul	lfide Odor (C	1)		Crayfish Bu	rrows (C8)
Sedime	nt Deposits (B2)		Oxidized Rhiz	zospheres or	Living Roots	s (C3)	Saturation \	/isible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence of F	Reduced Iron	(C4)		Stunted or S	Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent Iron R	Reduction in	Filled Soils (C	C6)	Geomorphic	Position (D2)
Iron De	posits (B5)		Thin Muck Su	urface (C7)			FAC-Neutra	l Test (D5)
Inundat	ion Visible on Aerial Im	agery (B7)	Gauge or We	ll Data (D9)				
Sparsel	y Vegetated Concave S	Surface (B8)	Other (Explai	n in Remarks	5)			
Field Observ	ations:							
Surface Wate		Yes No X	Depth (inches):	: N/A				
Water Table		Yes No X	Depth (inches)					
Saturation Pr	resent?	Yes No X	Depth (inches)		Wetland	Hydrolog	y Present?	Yes No X
(includes cap	oillary fringe)						-	
Describe Re	corded Data (stream ga	auge, monitoring we	II, aerial photos, pre	evious inspec	tions), if avai	ilable:		
Remarks:								

AppLice Dots District District <thdistrict< th=""> <thdistrict< th=""> <thdis< th=""><th>Project/Site:</th><th>Republic Wind Farm</th><th></th><th></th><th></th><th>City/Count</th><th>ty: Seneca</th><th></th><th>Sampling Date: 12/4/2017</th></thdis<></thdistrict<></thdistrict<>	Project/Site:	Republic Wind Farm				City/Count	ty: Seneca		Sampling Date: 12/4/2017
Distancy Long Distance	-							Sampling Point:	
Lackbory large van de la large van de large								· · · ·	
Sing (%) Its It			Stream Terrace						concave
SolAby Life there, is				41 169		Long.		-	
Aud undersite No Model (not prevent) No Model (not prevent) No No <t< td=""><td></td><td></td><td></td><td>71.100</td><td></td><td></td><td></td><td></td><td></td></t<>				71.100					
A. Nogazio N 5.3 N orthorization of partial Yes X SUMMARY OF FININGS - Allach site maps abound gampling polit locations, transcet, important features, etc. Hinde Supplicity or yease is Result. Yes X No Summary of Prison? Yes X No Is the Sample day or yease is Result. Yes X No Summary of Prison? Yes X No Is the Sample day or yease is Result. Yes X No Waterial Hydrologic Vegent? Yes X No Is the Sample day or yease is Result. Yes X No Result. Yes X No Is the Sample day or yease is Result. Yes X No Result. Yes X No Is the Sample day or yease is Result. No Is the Sample day or yease is Result. No Is the Sample day or yease is Result. No Is the Sample day or yease is Result. No Is the Sample day or yease is Result. No Is the Sample day or yease is Result. No Is the Sample day or yease is Result. No Is the Sample day or yease is Result. No Is the Sample day or yease is Result. No Is the Sample day or yeas		-	ite tunical for this time of use	.2		Vaa	Y No		
Air Wagnet N	-	-			oignificently -!!-				Vec X No
SUMMARY OF FINDINGS - Attach also may above the analytic point features, stro. It is the Sample Area Water and the analytic point features, stro. Water analytic point featu	-								
http://project.vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Wetlam Hydrology Present? Yes X No Wetlam Hydrology Present? Yes X No Wetlam Hydrology Present? Yes X No Wetlam Hydrology Present? Yes X No Wetlam Hydrology Present? Yes X No Deniance Test worknet: No Wetlam Hydrology Present? Yes X No Deniance Test worknet: No Yes X No 20000 Mediation Deniance Test worknet: No				· · · ·				explain any answers in Remarks.)	
No Within a Weiland? Yes X No Allowind Hydrology Present? Yes X No Yes X No Allowind Hydrology Present? Yes X No Yes X No Allowind Hydrology Present? Yes X No Yes X No Allowind Hydrology Present? Yes			cn site map showing			•			
Webstand Projectory Present? Ves No Image: construction of present of						-			
Bartesian Non-Weight Stress of plants. VEGETATION - Use accentific names of plants. Non-Weight Stress of Pathon Statu 1 Convert Stress of Pathon Statu Non-Weight Stress of Pathon 2 Statu FCC Number of Dominant Species A (A) 2 Statu Statu Statu Statu Statu 2 Statu Statu Statu Statu Statu 2 Statu						withi	in a Wetland?	Yes ×	No
VESETATION - Use scientific names of plants. Image Stratum (Pris for, 50 r ratins) 1, 600000 9000007 900000007 9000007	Wetland Hydrol	ogy Present?		Yes X	N0	-			
1. Over a planting 29% Yes FACW Number of Dominant Specke 2			ames of plants.					Dominance Test worksheet:	
2									
1					2370	105	1701	Number of Dominant Species	
4									2 (^)
25% = Total Cover Species Across Al Stratz: 3 (b) Sading@mg_Broadsmap	3							THAL ATE ODL, FACW, OF FAC:	3(A)
25% = Total Cover Species Across Al Stratz: 3 (b) Sading@mg_Broadsmap	4							Total Number of Division	
Saping-Structure (Plot size: 15 radius)	5								
1					25%	= I otal Cover		Species Across All Strata:	<u> </u>
1			\ \						
2		um (Plot size: 15' radiu	s)						
3.								That Are OBL, FACW, or FAC:	(A/B)
4	2								
s. Total % Cover of: Multiply by: Total % Cover of: Multiply by: Tata Are OBL, FACW, or FAC: AB DBL species 20% Y1 = 1: Gener keoxinis 20% Yes 3: Gener keoxinis 20% Yes 4: Jysimach multiplan 10% No 5: Lysimach multiplan 10% No 6: Total % Cover of: Multiply by: 7: Carae keoxinis 20% Yes 6: DRL species 35 = 7: Cover of: Multiply by: 6: DRL species 35 = 7: Cover of: AB 8: DRL species 35 = 9: DRL species 35 = 10: DRL species 35 = 11: DRL species 1.30 12: DRL species 2.08 13: DRL species 30 * 14: DRL species 30 * 15: DRL species 30 * 16: DRL species 30 * 17: DRL species 30 * 18: DRL species 30 * 105% Total Cover	3								
a Total Scover Total Scover of Trace Scover of T	4							Prevalence Index worksheet:	
Herb Statum (Plot size: 5' radius) That Are OBE, FACW, or FAC: AB 1 Edynas virginicus 35% Yes FACW Solids spoide 20%, x1 = 0.2 2. Gareck bacustris 20%, Yes OBL FACW species 30%, x3 = 0.9 3. Gaun canadenas 15%, No FAC FACW species 30%, x3 = 0.9 4. Lysimachin canadenas 15%, No FACW FACW FAC species 30%, x3 = 0.9 5. Lysimachin canadenas 10%, No FACW FACW Column Totals: 1.30 (A) 2.7 (B) 6. Persicarla longiseta 15%, No FAC FAC Prevalence Index = B/A = 2.08 11.	5.								
Heth Stratum (Plot size: 5' radius) OBL species 20%, x1 = 0.2 1. Eymus viginicus 35%, Yes FACW FACW species 80%, x2 = 1.6 2. Carex location 20%, Yes OBL FAC Species 80%, x2 = 0.9 3. Geum canadense 15%, No FAC FAC Uspecies x4 = 0.9 4. Lysimachia numrularia 10%, No FAC FAC Uspecies x5 =	-					= Total Cover			
1. Elymus virginicus 35% Yes FACW FACW species 80% x2 = 1.6 2. Carex lacustris 20% Yes OBL FAC species 30% x3 = 0.9 3. Geum candensoe 15% No FAC FAC species 30% x4 = 0.9 5. Lysimechia numularia 10% No FACW FACW Column Totals: 1.30 (A) 2.7 (B) 6. Arranzania longuesta 15% No FAC Prevalence Index = B/A = 2.08 8.									
2 Carex kacustris 20% Yes OBL FAC species 30% x3 = 0.9 3. Geum canadonse 15% No FAC FACU species x4 =									
3. Geum canadense 15% No FAC FACU species x4 =		us				Yes		· · · · · · · · · · · · · · · · · · ·	x2 = 1.6
4. Lysimachia nummularia 10% No FACW UPL species x5 =						-			x3 = 0.9
5. Lysimachia ciliata 10% No FACW Column Totals: 1.30 (A) 2.7 (B) 6. Parsicaria longiseta 15% No FAC Prevalence index = B/A =	3. Geum canaden	se			15%	No	FAC	FACU species	x4 =
6. Persidanta longiseta 15% No FAC 7.	4. Lysimachia nun	nmularia			10%	No	FACW	UPL species	x5 =
7.	5. Lysimachia cilia	ata			10%	No	FACW	Column Totals: 1.30	(A) 2.7 (B)
8.	6. Persicaria longi	seta			15%	No	FAC		
9.	7							Prevalence Index =	B/A = 2.08
10.	8								
11.	9								
12.	10							Hydrophytic Vegetation Indica	tors:
13.	11								
14.	12.							X 1-Rapid Test for Hydro	phytic Vegetation
15.	13.							X 2-Dominance Test is >	50%
16.	14.							X 3-Prevalence Index is s	3.0 ¹
16.	15.							4-Morphological Adapta	ations ¹ (Provide supporting
17.								data in Remarks or on	a separate sheet)
18.	17.								
19.	18.								
20.								¹ Indicators of hydric soil and wet	land hydrology must
Image: Non-type Image: Non-type 1. Image: Non-type 2. Image: Non-type Image: Image: Image: Non-type Image: Image: Non-type Image:									
Woody Vine Stratum (Plot size: 30' radius) Hydrophytic 1.	· · · · · · · · · · · · · · · · · · ·				105%	= Total Cover			
1. Vegetation 2. = Total Cover Yes X	L				10070	10101 00101			
1. Vegetation 2. = Total Cover Yes X	Woody Vine Stratur	n (Plot size: 30' radius)					Hydrophytic	
2 = Total Cover Present? Yes X No		(. 101 5120. 00 180105							
= Total Cover									X No
	<u>۲. </u>					- Total Causa		riesent? Yes	<u>^ NO</u>
Remarks: (Include photo numbers here or on a separate sheet.)						= Iotal Cover			
Remarks: (Include photo numbers here or on a separate sheet.)									
	Remarks: (Include	pnoto numbers here or	on a separate sheet.)						

epth	Matrix		eded to document the in	dox Features				
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-20"	10yr 5/1	90	10yr 3/6	10	С	М	Silty Clay Loam	
·					·		·	
					·			
					·		·	
ype: C=Co	oncentration, D=Deplet	ion, RM=Red	duced Matrix, CS=Covere	ed or Coated	Sand Grains	² Locati	ion: PL=Pore Lining, M=	Matrix.
dric Soil Ir	ndicators ³ :					Tes	t Indicators of Hydric So	oils:
Histosol	(A1)		Sandy Gleye	ed Matrix (S4)		Iron-Manganese	Masses (F12)

Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5)	Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7)	Very Shallov	nese Masses (F12) w Dark Surface (F22) ain in Remarks)
Black Histic (A3) Hydrogen Sulfide (A4)	Stripped Matrix (S6)		
Hydrogen Sulfide (A4)		Other (Expla	ain in Remarks)
	Dark Surface (S7)		
Stratified Layers (A5)			
	Loamy Mucky Mineral (F1)		
2 cm Muck (A10)	Loamy Gleyed Matrix (F2)		
Depleted Below Dark Surface (A11)	X Depleted Matrix (F3)		
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ The hydric soil inc	dicators have been updated to
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	comply with the	e Field Indicators of Hydric Soils
5 cm Mucky Peat or Peat (S3)	Redox Depressions (F8)	in the United S	States, Version 8.0, 2016.
estrictive Layer (if observed):			
Туре:			
Depth (inches):		Hydric Soil Present?	Yes X No

HYDROLOGY

Wetland Hydrology Indicators:						
Primary Indicators (minimum of one is required: check al	I that apply)	Secondary Indicators (minimum of two required)				
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)				
X High Water Table (A2)	Aquatic Fauna (B13)	X Drainage Patterns (B10)				
X Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)				
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)				
X Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)				
Iron Deposits (B5)	Thin Muck Surface (C7)	X FAC-Neutral Test (D5)				
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)					
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)					
Field Observations:						
Surface Water Present? Yes No X	Depth (inches): N/A					
Water Table Present? Yes X No	Depth (inches): 2"					
Saturation Present? Yes X No	Depth (inches): Surface Wetland Hydrolo	gy Present? Yes X No				
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well	, aerial photos, previous inspections), if available:					
Remarks:						
Nemarks.						

Project/Site:	Republic Wind Farm					City/Count	y: Seneca		Sampling Date: 12/4/2017
Applicant/Owner:	Apex Clean Energy					_	e: OH	Sampling Point:	who-265-upl
Investigator(s):	BRH						Section, Townsh		·
Landform (hillslope,	terrace, etc.):	Stream Terrace						al relief (concave, convex, none): c	onvex
Slope (%):	0%	Lat:	41.16931			Long:	-	-82.8928	Datum: WGS84
Soil Map Unit Name								NWI classifie	
•		e typical for this time of yea	r?			Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	-	Soil N	, or Hydrology	N si	ignificantly dis			al Circumstances" present?	Yes X No
Are Vegetation		Soil N	, or Hydrology		aturally proble			explain any answers in Remarks.)	···· <u>···</u> ···
		n site map showing							
	getation Present?	i site map showing		-		•	e Sampled Ar		
Hydric Soil Pres	0		Yes Yes X	No No	Х	-	n a Wetland?		No x
Wetland Hydrol			Yes	No				163	<u>No x</u>
						-			
Remarks:									
VEGETATION	Use scientific na	mes of plants.							
		•			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)			-	% Cover	Species?	Status	Dominance Test worksheet:	
1. Carya ovata					25%	Yes	FACU		
2. Quercus rubra					10%	No	FACU	Number of Dominant Species	
3. Quercus alba					30%	Yes	FACU	That Are OBL, FACW, or FAC:	0 (A)
4.									
5.								Total Number of Dominant	
					65%	= Total Cover		Species Across All Strata:	5 (B)
Sapling/Shrub Strat	um (Plot size: 15' radius)							Percent of Dominant Species	
1. Acer saccharun	n				50%	Yes	FACU	That Are OBL, FACW, or FAC:	0% (A/B)
2. Fraxinus americ	cana				20%	Yes	FACU		
3. Ligustrum obtus	sifolium				10%	No	UPL		
4.								Prevalence Index worksheet:	
5.							·		
					80%	= Total Cover	·	Total % Cover of:	Multiply by:
						-		That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	size: 5' radius)							OBL species	x1 =
1. Symphyotrichui	m lateriflorum				2%	No	FACW	FACW species 2%	x2 = 0.04
2. Acer saccharun	n				10%	Yes	FACU	FAC species	x3 =
3.								FACU species 145%	x4 = 5.8
4.							·	UPL species 10%	x5 = 0.5
5.								Column Totals: 1.57	(A) 6.34 (B)
6.							·		
7.								Prevalence Index = B	/A = 4.04
8.									
9.							·		
10.								Hydrophytic Vegetation Indicate	ors:
11.							·		
12.								1-Rapid Test for Hydrop	hytic Vegetation
13.							·	2-Dominance Test is >5	0%
14.						_	·	3-Prevalence Index is ≤3	3.0 ¹
15.								4-Morphological Adaptat	tions ¹ (Provide supporting
16.							·	data in Remarks or on a	a separate sheet)
17.						_	·	Problematic Hydrophytic	c Vegetation ¹ (Explain)
18.						_	·		
19.								¹ Indicators of hydric soil and wetla	and hydrology must
20.								be present, unless disturbed or p	roblematic.
				·	12%	= Total Cover	·		
Woody Vine Stratur	n (Plot size: 30' radius)							Hydrophytic	
1.	,							Vegetation	
2.							·		No X
						= Total Cover	·	_	
				-		-			
Remarks: (Include	photo numbers here or or	a separate sheet.)						•	

Profile Desc	ription: (Describe to th	ne depth neede	d to document the ir	dicator or co	onfirm the a	bsence of	indicators.)	
Depth	Matrix		Rec	dox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8"	10yr 4/2	100					Silt Loam	
8-20"	10yr 6/1	90	10yr 6/6	10	С	М	Silt Loam	
					·			
·								
¹ Type: C=C	oncentration, D=Depletion	on, RM=Reduce	ed Matrix, CS=Covere	d or Coated S	Sand Grains.	² Locati	on: PL=Pore Lining	M=Matrix.
Hydric Soil II			,,				Indicators of Hydr	
Histoso	I (A1)		Sandy Gleye	ed Matrix (S4)	1		Iron-Mangai	nese Masses (F12)
Histic E	pipedon (A2)		Sandy Redo	x (S5)			Very Shallo	w Dark Surface (F22)
Black H	listic (A3)		Stripped Mat				Other (Expla	ain in Remarks)
Hydroge	en Sulfide (A4)		Dark Surface	e (S7)				
	d Layers (A5)			ky Mineral (F1	-			
	uck (A10)			ed Matrix (F2))			
	ed Below Dark Surface (411)	X Depleted Ma				3	
	ark Surface (A12)			Surface (F6)				dicators have been updated to
	Mucky Mineral (S1) ucky Peat or Peat (S3)		Redox Depre	rk Surface (F	7)			e Field Indicators of Hydric Soils States, Version 8.0, 2016.
				55510115 (1 0)			in the onited S	
	ayer (if observed):							
Type: Depth (ir	nches):					Hydric	Soil Present?	Yes X No
Deptil (il	icites).					Tiyanc	oon mesent:	
HYDROLO								
r								
-	Irology Indicators: ators (minimum of one i	s required: chev	ck all that apply)				Secondary Indicat	tors (minimum of two required)
	Water (A1)	s lequiled. chec		ed Leaves (BS	9)			I Cracks (B6)
	ater Table (A2)		Aquatic Faur		5)			atterns (B10)
	ion (A3)			c Plants (B14))			Water Table (C2)
	Marks (B1)			ulfide Odor (C			Crayfish Bu	
	nt Deposits (B2)			izospheres or		s (C3)		/isible on Aerial Imagery (C9)
	posits (B3)			Reduced Iron	-	. ,		Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent Iron	Reduction in	Tilled Soils (0	C6)	Geomorphic	Position (D2)
Iron Der	posits (B5)		Thin Muck S	urface (C7)			FAC-Neutra	l Test (D5)
Inundat	ion Visible on Aerial Ima	igery (B7)	Gauge or W	ell Data (D9)				
Sparsel	y Vegetated Concave S	urface (B8)	Other (Expla	in in Remarks	s)			
Field Observ	ations:				1			
Surface Wate	er Present?	Yes No X	X Depth (inches)): N/A				
Water Table	Present?	Yes No X	X Depth (inches)): >18"				
Saturation Pr	resent?	Yes No	X Depth (inches)): >18"	Wetland	Hydrolog	gy Present?	Yes NoX
(includes cap	villary fringe)							
Describe Red	corded Data (stream gau	uge, monitoring	well, aerial photos, pr	evious inspec	ctions), if ava	ilable:		
Remarks:								
Remarks.								

Project/Site:	Republic Wind Farm				с	City/County:	Seneca	San	npling Date: 12/4/2017
Applicant/Owner:	Apex Clean Energy					State		Sampling Point:	who-265-wet
Investigator(s):	BRH						Section, Townsh	p, Range:	
Landform (hillslope,	terrace, etc.):	Stream Terrace					Loc	al relief (concave, convex, none): conca	ave
Slope (%):	0%	Lat:	41.1692		Lon	ıg:		-82.893 E	Datum: WGS84
Soil Map Unit Name	e: Pa							NWI classificatio	n: none
Are climatic / hydrol	ogic conditions on the site	e typical for this time of yea	?			Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	<u> </u>	Soil N	, or Hydrology	N significa	intly disturbed?		Are "Norma	al Circumstances" present?	Yes X No
Are Vegetation	<u> </u>	Soil N	, or Hydrology	N naturall	/ problematic?		(If needed,	explain any answers in Remarks.)	
SUMMARY OF	FINDINGS Attacl	h site map showing	sampling point loca	tions, transed	ts, importar	nt featur	es, etc.		
Hydrophytic Veg	getation Present?		Yes x	No		Is the	Sampled Are	a	
Hydric Soil Pres	sent?		Yes x	No		within	a Wetland?	Yes x	No
Wetland Hydrol	ogy Present?		Yes x	No					
VEGETATION - Tree Stratum (Plot 1.	Use scientific nat	mes of plants.				ominant pecies?	Indicator Status	Dominance Test worksheet:	
2.				·				Number of Dominant Species	
3.					·			That Are OBL, FACW, or FAC:	1 (A)
4.									
5.								Total Number of Dominant	
					= Tota	l Cover		Species Across All Strata:	1 (B)
								-	
1 2	um (Plot size: 15' radius)							Percent of Dominant Species That Are OBL, FACW, or FAC:	100% (A/B)
3									
4								Prevalence Index worksheet:	
5.								T (10) O	
					= Iota	l Cover		Total % Cover of: That Are OBL, FACW, or FAC:	Multiply by: A/B
Herb Stratum (Plot	size: 5' radius)							OBL species 90%	x1 = 0.9
1. Boehmeria cylin				c	0%	Yes	OBL	FACW species	x2 =
2.	landa							FAC species	x3 =
3.								FACU species	x4 =
4.								UPL species	x5 =
5.									A) 0.9 (B)
6.									
7.								Prevalence Index = B/A =	1.00
8.									
9.									
10.								Hydrophytic Vegetation Indicators:	
11									
12								X 1-Rapid Test for Hydrophytic	Vegetation
13								X 2-Dominance Test is >50%	
14								x 3-Prevalence Index is ≤3.0 ¹	1 (Description of the
-								4-Morphological Adaptations	
16								data in Remarks or on a sep Broblomatia Hydrophytia Vo	-
17								Problematic Hydrophytic Ve	yeranon (Explain)
18								¹ Indicators of hydric soil and wetland I	hydrology must
19				·				be present, unless disturbed or proble	
20					0% = Tota	l Cover		be present, unless disturbed of proble	smallo.
L				5	o /o ≓ i uta	. Cover			
Woody Vine Stratun	n (Plot size: 30' radius)							Hydrophytic	
1.	_ ,							Vegetation	
2.								Present? Yes X	No
					= Tota	l Cover		<u></u>	<u> </u>
						-			
Remarks: (Include	photo numbers here or or	n a separate sheet.)							

Profile Desc	ription: (Describe t	o the depth needed	to document the in	dicator or c	onfirm the al	bsence of	indicators.)				
Depth Matrix Redox Features											
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-20"	10yr 5/1	90	10yr 3/6	10	С	М	Silty Clay Loam				
¹ Type: C=C	oncentration, D=Dep	letion, RM=Reduced	Matrix, CS=Covered	d or Coated	Sand Grains.	² Locatio	on: PL=Pore Lining,	M=Matrix.			
Hydric Soil I	ndicators ³ :					Test	Indicators of Hydri	c Soils:			
Histoso	ol (A1)		Sandy Gleye	d Matrix (S4))		Iron-Mangar	nese Masses (F12)			
Histic E	pipedon (A2)		Sandy Redox	k (S5)			Very Shallow	v Dark Surface (F22)			
Black H	listic (A3)		Stripped Mat	rix (S6)			Other (Expla	ain in Remarks)			
Hydrog	en Sulfide (A4)		Dark Surface	e (S7)							
Stratifie	ed Layers (A5)		Loamy Muck	- ·	-						
	uck (A10)		Loamy Gleye)						
Deplete	ed Below Dark Surfac	æ (A11)	X Depleted Ma								
	Oark Surface (A12)		Redox Dark				-	dicators have been updated to			
	Mucky Mineral (S1)		Depleted Da	-	7)			e Field Indicators of Hydric Soils			
5 cm M	ucky Peat or Peat (S	3)	Redox Depre	essions (F8)			in the United S	<i>tates</i> , Version 8.0, 2016.			
Restrictive L	ayer (if observed):										
Type:											
Depth (i	nches):					Hydric S	Soil Present?	Yes X No			
Remarks:											
rtomanto.											
HYDROL											
r											
-	Irology Indicators:							(· · · · · · · · · · · · · · · · · · ·			
	cators (minimum of or	ne is required: check			0)			ors (minimum of two required)			
	e Water (A1)		Water-Staine	`	9)			Cracks (B6)			
	ater Table (A2)		Aquatic Faur	. ,			X Drainage Pa				
	ion (A3)		True Aquatic					Water Table (C2)			
	Marks (B1)		Hydrogen Su	Ilfide Odor (C	21)		Crayfish Bur				
	ent Deposits (B2)			-	n Living Root	s (C3)		isible on Aerial Imagery (C9)			
Drift De	eposits (B3)		Presence of	Reduced Iror	n (C4)		Stunted or S	stressed Plants (D1)			
Algal M	lat or Crust (B4)		Recent Iron I	Reduction in	Tilled Soils (0	C6)	Geomorphic	Position (D2)			
Iron De	posits (B5)		Thin Muck S	urface (C7)			X FAC-Neutral	l Test (D5)			
Inundat	tion Visible on Aerial	Imagery (B7)	Gauge or We	ell Data (D9)							
Sparse	ly Vegetated Concav	e Surface (B8)	Other (Explai	in in Remark	s)						
Field Observ	vations:				1						
Surface Wat		Voc X No	Donth (inchos)	: 8"							
Water Table		Yes <u>X</u> No Yes X No	Depth (inches) Depth (inches)								
Saturation P		Yes X No	Depth (inches) Depth (inches)		Wotland	Hydrolog	v Brocont?	Yes Y No			
(includes ca				. Sunace	wellanu	nyurolog	y Present?	Yes X No			
	corded Data (stream	dauge monitoring w	ell aerial nhotos pre	evinus ineno	ctions) if ava	ilahle:					
Describe ite	conded Data (Stream	gauge, monitoring w	ell, aellai priotos, pri		cilon3), ii ava	nable.					
Remarks:											
riomanio.											

Approx Base Determine Base Determine<	Project/Site:	Republic Wind Farm					Citv/Count	ty: Seneca		Sampling Date: 12/4/2017
Image Sector Sector Data markets Sector Sector Exclore Local additionals, more, total control Sector Sector <t< td=""><td>-</td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td></t<>	-						-			
Landow Information and Difference in the structure		-								
Bits PL Lm 11932 Lm 129215 Duam 'yolight Add Publ Vin Marging Scattering and an ingestation is in a long Scattering Scat			Rackelone							onvex
Bit Number Built mmm		-		44 46022			Longi	-	· · · · · -	
And under Links rungs conclusions are being conclusions. Yes			Lat:	41.16932			Long:			
No. Sold N Sold High N<										cation: none
Ava Vagetes I. 1.01	-	-								
SUMMARY OF FINDINGS - Attach bits may showing sampling point locations. transess, important features, etc.	-									Yes X No
No x Is the Sampled Area within a Wedland? Yes No x Wedland Hydrology Present? Yes No x within a Wedland? Yes No x Wedland Hydrology Present? Yes No x within a Wedland? Yes No x Wedland Hydrology Present? Yes No x within a Wedland? Wedland Hydrology Present? Yes No x Wedland Hydrology Present? Yes No x Sample Area within a Wedland? Wedland Hydrology Present? No x Vedeorband 2000 produktion 2000 produktion 1000 Produktion Sample Area Present Area 1000 Produktion 1000	Are Vegetation	N	, Soil N	, or Hydrology	N	naturally proble	matic?	(If needed,	explain any answers in Remarks.)	
No X while A Mystology Present? Yes No X Retrand Mystology Present? Yes No X Retrand Mystology Present? Yes No X Retrand Mystology Present? Yes No X Retrands Retrands Retrands Retrands Status: Preside Retrands Retrands 1. Adv station (Prot size X) foldu) Retrands Retrands No Retrands 3. Open protect Open Yes FACU No Retrands Statistics 3. Open protect Open Yes FACU No Retrands Statistics	SUMMARY OF	FINDINGS Atta	ich site map showing	sampling point loo	cations, tr	ansects, im	portant featu	ires, etc.		
Webland Prior Lay Yes No x Reserve: Ves No x Vestioned of prior in status Advatus Destinated in the status No Vestioned of prior in status Advatus Destinated in the status No Vestioned of prior in status Advatus Destinated in the status No 2 Advatus Destinated in the status No No No 2 Advatus Destinated in the status No No No 3 Advatus Destinated in the status No No No 4 Advatus Destinated in the status No No No No 3 Advatus Destinated in the status No	Hydrophytic Ve	getation Present?		Yes	N	o <u>x</u>	Is the	e Sampled Ar		
But not it: Absolute Deminant Absolute Middentify the stars 30 radius) Absolute Middentify the stars 30 radius) Convert Species Status Deminance Test vortables: Indentify the stars 30 radius) Convert Species Status Deminance Test vortables: Indentify the stars 30 radius) Convert Species Status Deminance Test vortables: Indentify the stars 30 radius) Convert Species Status Deminance Test vortables: Indentify the stars 30 radius Convert Species Status Deminance Test vortables: Indentify the stars 30 radius Convert Species Tatu Are ORE FXOV or AFG (Convert Area) Convert Species Tatu Are ORE FXOV or AFG (Convert Area) Convert Species Convert Species<	Hydric Soil Pres	sent?		Yes	N	o x	withi	in a Wetland?	Yes	No <u>x</u>
VECETATION - Use scientific names of plants. Tree Statum (Ptr size: 30" odus) Normal Statum Statum <thstatum< th=""> Statum <ths< td=""><td>Wetland Hydrol</td><td>ogy Present?</td><td></td><td>Yes</td><td>N</td><td>o<u>x</u></td><td>_</td><td></td><td></td><td></td></ths<></thstatum<>	Wetland Hydrol	ogy Present?		Yes	N	o <u>x</u>	_			
Tate Section No. Over Section? Section? Non-section section sectin section sectin section se		Use scientific r	names of plants.							
1. Acer sectoration 20% Yes FACU Non-FACU 2. Graps grandblog 5% No FACU No FACU 3. Obrava none 10% Yes FACU No FACU 4. Graps minite 10% Yes FACU Test Nonber of Dominant Species						Absolute	Dominant	Indicator		
2 Page specifies Page FAGU Number of Dominant Species 3. Grigps specifies 00% * Tata * FAGU * Tata Aventher of Dominant Species 0 6. Queen avent 20% * Tata Aventher of Dominant Species 0 * Tata Aventher of Dominant Species 0 5. Queen avent 20% * Yes FAGU Species Aventher of Dominant Species 0 5. Queen avent 20% * Yes FAGU Species Aventher of Dominant Species 0 1. Advanced 20% Yes FAGU Species Aventher of Dominant Species Tata Ave OBL, FACW, or FAG: 1 (A) 3. Uhuns aven 20% Yes FAGU Species Aventher of Dominant Species Tata Ave OBL, FACW, or FAG: 1 (A) 3. Uhuns aven 20% Yes FAGU Species Aventher of Dominant Species Tata Ave OBL, FACW, or FAG: 1 (A) 3. Uhuns avent 20% Yes FAGU Species Aventher of Dominant Species 1 1 1 1 1 1 1 1 1	Tree Stratum (Plot	size: 30' radius)				% Cover	Species?	Status	Dominance Test worksheet:	
3. Outry septens 9% No PACU Test An OBL, FACW, or FAC: 1 (A) 4. Garge sents 10% Yes FACU Total Ano OBL, FACW, or FAC: 1 (A) 5. Convex rols 30% Test Ano OBL, FACW, or FAC: 1 (A) 5. Convex rols 30% Test Ano OBL, FACW, or FAC: 1 (A) 5. Convex rols 50% Test Ano OBL, FACW, or FAC: 1 (A) 1. Anot sectore 20% Yes FACU Total Number of Dominant Species Across Af Stratus: 9 (B) 2. Pipug anyoticities 20% Yes FACU Task and OBL, FACW, or FAC: 11% (AB) 3. Outrop store 20% Yes FACU Total No. Cons Af Stratus: 9 (B) 4. Gard Store 76 Yes FACU Test Ano OBL, FACW, or FAC: 11% (AB) 1. Symphytocham deterform 20% Yes FACU FACU <td>1. Acer saccharun</td> <td>n</td> <td></td> <td></td> <td></td> <td>20%</td> <td>Yes</td> <td>FACU</td> <td></td> <td></td>	1. Acer saccharun	n				20%	Yes	FACU		
4 Organization 19% Yes FACU 5 Overcos rubra 19% Yes FACU 5 Overcos rubra 10% Yes FACU 5 Overcos rubra 20% Yes FACU 5 Overcos rubra 20% Yes FACU 5 Overcos rubra 20% Yes FACU 7 Overcos rubra 20% Yes FACU 7 Overcos rubra 20% Yes FACU 7 Overcos rubra 6% No FAC 7 Overcos rubra 6% No FAC 7 Overcos rubra 6% No FAC 7 Overcos rubra 7% Yes FAC 8 Overcos rubra 6% No FAC 8 Overcos rubra 6% No FAC 8 Overcos rubra 7% Yes FAC 1. Symphyorithm asseritorum 2% No FAC 1. Symphyorithm conditalum 5% Yes FAC 1. Symphyorithm conditalum 5% Yes FAC 1. Symphyorithm condifalum 5% Yes<	2. Fagus grandifol	lia				10%	Yes	FACU	Number of Dominant Species	
8. Jancias nabes 1995 Yes FACU Total Number of Dominant Satisting (Pot size 15 maluu)	3. Ostrya virginian	a				5%	No	FACU	That Are OBL, FACW, or FAC:	(A)
Sprite Total Cover Sprite Percent of Dominant Sprices StaniantShinh, Stintum, (Portsize: 15' redus)	4. Carya ovata					10%	Yes	FACU		
SelendShub Shub Internation 20% Yes FACU 1. Acer sectorism 20% Yes FACU 2. Figue grantfolio 20% Yes FACU 3. Umus nion 0% No FACU 4 0% No FACU 3. Umus nion 0% No FACU 4 0% Total No Cover of Multiply by: 1. Symphytochum blentificum 2% No FACW 2. Acer sectorism 10% Yes FACW 3. Symphytochum blentificum 0% Yes FACW 4. Autor packam 0% Yes FACW 5. 0.04 FACW FACW FACW spocies 6. 0.04 FAC FACW FACW spocies 10% 4.4 4. Main problem 0.04 FACW FACW spocies 10% 4.2 0.04 5. 0.05 10% Yes FACW FACW spocies 2.8 0.2 0.2 0.2 0.2 </td <td>5. Quercus rubra</td> <td></td> <td></td> <td></td> <td></td> <td>10%</td> <td>Yes</td> <td>FACU</td> <td>Total Number of Dominant</td> <td></td>	5. Quercus rubra					10%	Yes	FACU	Total Number of Dominant	
1. Age: grandfolde 20% Yes FACU That Are DBL, FACW, or FAC: 11% (AB) 2. Figure grandfolde 20% Yes FACU						55%	= Total Cover		Species Across All Strata:	9 (B)
1. Age: grandfolde 20% Yes FACU That Are DBL, FACW, or FAC: 11% (AB) 2. Figure grandfolde 20% Yes FACU										
2. Fagus grandfola 20% Yes FACU 3. Umar Adra 5% No FAC 4.	Sapling/Shrub Strat	um (Plot size: 15' radi	us)						Percent of Dominant Species	
3. Umus ndra 5% No FAC Prevalence Index worksheet: 4	1. Acer saccharun	n				20%	Yes	FACU	That Are OBL, FACW, or FAC:	11% (A/B)
4	2. Fagus grandifol	lia				20%	Yes	FACU		
s Image: distance in the sector of the s	3. Ulmus rubra					5%	No	FAC		
Hard % methods in the statum Add % methods in the statum Total % Cover d:	4.						-		Prevalence Index worksheet:	
Hard % methods in the statum (Plot size: 5' radius) Total % Cover d: TAC: Seconds All % 1. Symphycitichum metritorum 2% N FACU FACU <t< td=""><td>5.</td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td></t<>	5.						-			
Had. Stratum (Plot size: 50 radius) That Are OBL, FACW, or FAC: x1 = 1.3gmphyorichum iteritikrum 2% No FACW FACW FACW Seedea 0.3 3. Symphyorichum iteritikrum 10% Yes FACW FACW FACW species 10% x2 = 0.04 4. Alariar periodati 6% Yes UPL FACW FACU FACW species 10% x3 = 0.3 4. Alariar periodati 6% Yes UPL FACU						45%	= Total Cover		Total % Cover of:	Multiply by:
1. Symphyotichum kestiforum 2% No FACW FACW species 2% x 2 = 0.04 2. Ader saccharum 10% Yes FACU FACU species 10% x 3 = 0.3 3. Symphyotichum cordiolum 5% Yes UPL FACU species 10% x 4 = 0.3 4. Altaria peebiata 5% Yes UPL FACU species 10% x 4 = 0.25 5. 5 Ves FAC UPL species 5%, x 5 = 0.25 6.							-			
2. Acer saechaum 10% Yes FACU FAC species 10% X3 = 0.3 3. Symphystichum codifolium 5% Yes UPL FACU species 10% X4 = 4.2 4. Miaria petiolata 5% Yes FAC UPL species 5% X5 0.25 6.	Herb Stratum (Plot	size: 5' radius)							OBL species	x1 =
3. Symphyotichum condifolium 5% Yes UPL FAC 105% x4 = 4.2 4. Alliaria petiolata 5% Yes FAC UPL species 5% x5 = 0.25 6	1. Symphyotrichur	m lateriflorum		-		2%	No	FACW	FACW species 2%	x2 = 0.04
4. Alliaria petiolata 5% Yes FAC UPL species 5% x5 0.25 6.	2. Acer saccharun	n				10%	Yes	FACU	FAC species 10%	x3 = 0.3
5.	3. Symphyotrichur	m cordifolium				5%	Yes	UPL	FACU species 105%	x4 = 4.2
6.	4. Alliaria petiolata	3				5%	Yes	FAC	UPL species 5%	x5 = 0.25
6.	5.					· · · · · · · · · · · · · · · · · · ·			Column Totals: 1.22	(A) 4.79 (B)
8.	-					· · · · · · · · · · · · · · · · · · ·				
8.	7.					· · · · · · · · · · · · · · · · · · ·			Prevalence Index = E	3/A = 3.93
10.	8.					· · · · · · · · · · · · · · · · · · ·				
11.	9.									
11.	-								Hydrophytic Vegetation Indicat	ors:
12						·			, , , , , , , , , , , , , , , , , , , ,	
13.	12.					·			1-Rapid Test for Hydron	hytic Vegetation
14.	-									
15.						·				
16.	45								4-Morphological Adapta	tions ¹ (Provide supporting
17.						·				-
18.	-									
19.										
20. 22% = Total Cover be present, unless disturbed or problematic. Woody Vine Stratum (Plot size: 30' radius) . . 1. . . 2. . . . <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>¹Indicators of hydric soil and wet</td> <td>and hydrology must</td>									¹ Indicators of hydric soil and wet	and hydrology must
I. I. I. 22% = Total Cover Hydrophytic Vegetation Present? Yes	-									
Woody Vine Stratum (Plot size: 30' radius) Hydrophytic 1. Vegetation 2. = Total Cover	20					220/	Total Cavar		be present, unless disturbed of p	robiematic.
1. Vegetation 2.	L					22%	- Total Cover			
1. Vegetation 2.			-)							
2 Present? Yes No X		n (Plot size: 30 radiu	5)							
= Total Cover						·				
	<u>ک</u>					·	Tatal O		Present? Yes_	NO X
Remarks: (Include photo numbers here or on a separate sheet.)							= 1 otal Cover			
rkemarks: (include photo numbers nere or on a separate sheet.)	Demontres (1. 1. 1	abata avail 1							<u> </u>	
	Remarks: (Include	prioto numbers here of	on a separate sheet.)							

Profile Descr	iption: (Describe to t	he depth neede	to document the in	dicator or co	onfirm the ab	sence of	indicators.)		
Depth	Matrix		Red	ox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remark	S
0-8"	10yr 5/2	100					Silt Loam		
8-20"	10yr 5/4	100					Silt Loam		
					. <u> </u>				
·									
· ·									
<u> </u>									
· ·									
	oncentration, D=Deplet	ion PM-Poduco	d Matrix CS-Covoro	or Costod S	and Grains		on: PL=Pore Lining	M-Motrix	
Hvdric Soil Ir					anu Grains.		Indicators of Hydri		
Histoso			Sandy Gleyed	d Matrix (S4)		1001	•	nese Masses (F12)	
	pipedon (A2)		Sandy Redox					w Dark Surface (F22)	
	istic (A3)		Stripped Mat					ain in Remarks)	
Hydroge	en Sulfide (A4)		Dark Surface	(S7)					
Stratifie	d Layers (A5)		Loamy Mucky	/ Mineral (F1)				
2 cm Mi	uck (A10)		Loamy Gleye	d Matrix (F2)					
Deplete	d Below Dark Surface	(A11)	Depleted Mat	rix (F3)					
Thick D	ark Surface (A12)		Redox Dark S	Surface (F6)			³ The hydric soil in	dicators have been up	dated to
	/lucky Mineral (S1)		Depleted Dar		7)			e Field Indicators of H	
5 cm Mi	ucky Peat or Peat (S3)		Redox Depre	ssions (F8)			in the United S	tates, Version 8.0, 20	16.
Restrictive L	ayer (if observed):								
Type:									
Depth (ir	nches):					Hydric	Soil Present?	Yes	No <u>X</u>
Remarks:									
HYDROLO									
-	rology Indicators:	ta an an tao de ale a	h all that an all A					· · · · · · · · · · · · · · · · · · ·	
	ators (minimum of one	is required: chec	11.77	d Laguag (D())			tors (minimum of two r	equirea)
	Water (A1)		Water-Staine		"			I Cracks (B6)	
	ater Table (A2)		Aquatic Faun					atterns (B10)	
Saturati	. ,		True Aquatic					Water Table (C2)	
	farks (B1)		Hydrogen Su	-	-		Crayfish Bu	()	
	nt Deposits (B2) posits (B3)		Oxidized Rhiz Presence of F	-	-	s (C3)		/isible on Aerial Image Stressed Plants (D1)	ry (C9)
	at or Crust (B4) posits (B5)		Recent Iron F		nied Solis (C	(0)	FAC-Neutra	Position (D2)	
								1 Test (D3)	
	on Visible on Aerial Im y Vegetated Concave \$		Gauge or We		.)				
Sparser	y vegetated Collcave	Sullace (Bo)	Other (Explai		5)				
Field Observ	ations:								
Surface Wate		Yes No X							
Water Table		Yes No X	/						
Saturation Pr		Yes No X	Depth (inches)	: >18"	Wetland	Hydrolog	y Present?	Yes	No <u>X</u>
(includes cap			vall aarial shataa ara	vious inonos	tiona) if avai	labla			
Describe Red	corded Data (stream ga	luge, monitoring	well, aeriai priotos, pre	evious inspec	sions), ii avai	lable.			
Remarks:									

Project/Site:	Republic Wind Farm				City/County	: Seneca	Sampling Date: 12/4/	2017
Applicant/Owner:	Apex Clean Energy				State		Sampling Point: who-266-wet	
Investigator(s):	BRH					Section, Townsh	p, Range:	
Landform (hillslope,	terrace, etc.):	Backslope				Loc	al relief (concave, convex, none): concave	
Slope (%):	0%	Lat:	41.1694		Long:		82.8915 Datum: WGS84	
Soil Map Unit Name	e: Blg1B1						NWI classification: none	
Are climatic / hydrol	ogic conditions on the	site typical for this time of yea	r?		Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	Ν	, Soil N	, or Hydrology	N significantly dist	urbed?	Are "Norma	I Circumstances" present? Yes X No	
Are Vegetation	N	, Soil N	, or Hydrology	N naturally problem	natic?	(If needed,	explain any answers in Remarks.)	
SUMMARY OF	FINDINGS Atta	ch site map showing	sampling point loca	tions, transects, imp	oortant featur	es, etc.		
Hydrophytic Veg	getation Present?		Yes x	No	Is the	Sampled Are	a	
Hydric Soil Pres			Yes x	No	within	n a Wetland?	Yes x No	
Wetland Hydrol	ogy Present?		Yes x	No				
Tree Stratum (Plot		ames of plants.		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Quercus palusti	ris			40%	Yes	FACW		
2							Number of Dominant Species	(4)
3							That Are OBL, FACW, or FAC: 2	(A)
4				·			Total Number of Demission	
5				40%	= Total Cover		Total Number of Dominant Species Across All Strata: 2	(D)
				40%	= Total Cover		Species Across All Strata: 2	(B)
Sapling/Shrub Strate	um (Plot size: 15' radiu	s)					Percent of Dominant Species That Are OBL, FACW, or FAC: 100%	(A/B)
2.								
3.								
4.							Prevalence Index worksheet:	
5.								
					= Total Cover		Total % Cover of: Multiply by	
							That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot							OBL species 40% x1 = 0.4	
1. Carex tribuloide	es .			40%	Yes	OBL	FACW species 40% x2 = 0.8	
2				·	. <u> </u>		FAC species x3 =	
3. 4.				·	·		FACU species x4 =	
4 5.							UPL species x5 = Column Totals: 0.80 (A) 1.2	(B)
					·			(B)
7							Prevalence Index = B/A = 1.50	
8.								
9.								
10.							Hydrophytic Vegetation Indicators:	
11.								
12.							X 1-Rapid Test for Hydrophytic Vegetation	
13.							X 2-Dominance Test is >50%	
14.							X 3-Prevalence Index is ≤3.0 ¹	
15.							4-Morphological Adaptations ¹ (Provide support	ting
16.							data in Remarks or on a separate sheet)	
17							Problematic Hydrophytic Vegetation ¹ (Explain)
18								
19							¹ Indicators of hydric soil and wetland hydrology must	
20							be present, unless disturbed or problematic.	
L				40%	= Total Cover			
		\ \						
	n (Plot size: 30' radius)					Hydrophytic	
1							Vegetation	
2				·	= Total Cover		Present? Yes X No	
					= rotar Cover			
Remarks: (Include)	photo numbers here or	on a senarate sheet)					1	
		on a sopurate sheet.)						

Profile Desc	ription: (Describe to t	he depth needed t	to document the in	dicator or c	onfirm the al	bsence of	f indicators.)				
Depth	Matrix		Red	ox Features							
(inches)	Color (moist)	% (Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-20"	10yr 5/2	90	10yr 3/6	10	С	М	Silty Clay Loam				
	i				·						
					<u> </u>		· ·				
		- <u></u>									
							· ·				
	oncentration, D=Depleti	on, RM=Reduced	Matrix, CS=Covered	d or Coated S	Sand Grains.	² Locati	on: PL=Pore Lining	g, M=Matrix.			
Hydric Soil I						Test	Indicators of Hyd				
Histoso			Sandy Gleye					anese Masses (F12)			
	pipedon (A2)		Sandy Redox					ow Dark Surface (F22)			
	listic (A3)		Stripped Mat				Other (Exp	lain in Remarks)			
	en Sulfide (A4)		Dark Surface	. ,							
	d Layers (A5)		Loamy Muck								
	uck (A10)		Loamy Gleye)						
	ed Below Dark Surface (ATT)	X Depleted Mat				³ The hydric acil in	adjectors have been undeted to			
	oark Surface (A12) Mucky Mineral (S1)		Redox Dark S	. ,	7)			ndicators have been updated to the Field Indicators of Hydric Soils			
	ucky Peat or Peat (S3)		Redox Depre	-	()			States, Version 8.0, 2016.			
				3310113 (1 0)			in the onned t				
	ayer (if observed):										
Type:						l hadala	Coll Dresset2				
Depth (i	nches).					пуалс	Soil Present?	Yes X No			
Remarks:											
HYDROL	DGY										
Wetland Hyd	Irology Indicators:						_				
Primary India	cators (minimum of one	is required: check	all that apply)				Secondary Indica	ators (minimum of two required)			
Surface	e Water (A1)		Water-Staine	ed Leaves (B	9)		Surface So	il Cracks (B6)			
High W	ater Table (A2)		Aquatic Faun	na (B13)			Drainage P	atterns (B10)			
X Saturat	ion (A3)		True Aquatic	Plants (B14))		Dry-Season Water Table (C2)				
Water I	Marks (B1)		Hydrogen Su	lfide Odor (C	;1)		Crayfish Burrows (C8)				
Sedime	ent Deposits (B2)		Oxidized Rhi	zospheres or	n Living Root	s (C3)	Saturation	Visible on Aerial Imagery (C9)			
Drift De	posits (B3)		Presence of	Reduced Iror	n (C4)		Stunted or	Stressed Plants (D1)			
Algal M	at or Crust (B4)		Recent Iron F	Reduction in	Tilled Soils (0	C6)	Geomorphi	c Position (D2)			
Iron De	posits (B5)		Thin Muck St	urface (C7)			X FAC-Neutra	al Test (D5)			
Inundat	ion Visible on Aerial Ima	agery (B7)	Gauge or We	ell Data (D9)							
Sparse	ly Vegetated Concave S	Surface (B8)	Other (Explai	in in Remark	s)						
Field Observ	vations:										
Surface Wat		Yes No X	Depth (inches)	: na							
Water Table		Yes No X	Depth (inches)								
Saturation P		Yes X No	Depth (inches)		Wetland	Hydrolog	gy Present?	Yes X No			
(includes cap											
Describe Re	corded Data (stream ga	uge, monitoring we	ell, aerial photos, pre	evious inspe	ctions), if ava	ilable:					
Remarks:											
I											

Project/Site:	Republic Wind Farm					City/Count	y: Seneca		Sampling Date: 12/4/2017
Applicant/Owner:	Apex Clean Energy					-	e: OH	Sampling Point:	who-267-upl
Investigator(s):	BRH						Section, Townsh		·
Landform (hillslope,	terrace, etc.):	Summit						al relief (concave, convex, none): co	onvex
Slope (%):	0%	Lat:	41.16875			Long:	-	-82.8895	Datum: WGS84
Soil Map Unit Name	e: Blg1B1							NWI classific	ation: none
Are climatic / hydrol	ogic conditions on the	site typical for this time of year	ır?			Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	Ν	, Soil N	, or Hydrology	N s	ignificantly dist	urbed?	Are "Norma	al Circumstances" present?	Yes X No
Are Vegetation	N	, Soil N	, or Hydrology	N n	aturally proble	matic?	(If needed,	explain any answers in Remarks.)	
SUMMARY OF	FINDINGS Att	ach site map showing	sampling point loc	ations, tra	nsects, im	portant featu	ires, etc.		
Hydrophytic Veo	getation Present?		Yes	No	х	Is the	e Sampled Ar	ea	
Hydric Soil Pres			Yes	No	Х	withi	n a Wetland?	Yes	No <u>x</u>
Wetland Hydrol	ogy Present?		Yes	No	Х	-			
VEGETATION - Tree Stratum (Plot 1. Tilia americana	size: 30' radius)	names of plants.			Absolute % Cover 20%	Dominant Species? Yes	Indicator Status FACU	Dominance Test worksheet:	
2. Fagus grandifol	lia				70%	Yes	FACU	Number of Dominant Species	
3								That Are OBL, FACW, or FAC:	0 (A)
4									
5								Total Number of Dominant	
					90%	= Total Cover		Species Across All Strata:	(B)
	(0)	• \							
	um (Plot size: 15' rad	ius)			000/)/	FACU	Percent of Dominant Species	0%((A/B)
 Fagus grandifol 2. 	la				60%	Yes	FACU	That Are OBL, FACW, or FAC:	0% (A/B)
3.							·		
4.								Prevalence Index worksheet:	
5.								Trevalence index worksheet.	
0.					60%	= Total Cover		Total % Cover of:	Multiply by:
						-		That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	size: 5' radius)		_					OBL species	x1 =
1. Osmorhiza clay	tonii				10%	Yes	FACU	FACW species	x2 =
2								FAC species	x3 =
3								FACU species 160%	x4 = 6.4
4								UPL species	x5 =
5								Column Totals: 1.60	(A) <u>6.4</u> (B)
6									
7								Prevalence Index = B/	A = 4.00
8									
9 10							·	Hydrophytic Vegetation Indicato	
11.								Hydrophytic vegetation indicate	"5.
12.						·		1-Rapid Test for Hydroph	vtic Vegetation
13.								2-Dominance Test is >50	
14.								3-Prevalence Index is ≤3	
15.								4-Morphological Adaptati	ons ¹ (Provide supporting
16.								data in Remarks or on a	separate sheet)
17.								Problematic Hydrophytic	Vegetation ¹ (Explain)
18									
19								¹ Indicators of hydric soil and wetla	nd hydrology must
20								be present, unless disturbed or pr	oblematic.
					10%	= Total Cover			
h									
	n (Plot size: 30' radiu	us)						Hydrophytic	
1								Vegetation	
2						Total O		Present? Yes	No X
						= Total Cover			
Remarket (Inclusion	nhoto numboro har-	r on a separate sheet.)						1	
		a ooparate oneet.)							

Profile Desci	ription: (Describe to t	he depth needed	to document the in	dicator or co	onfirm the al	bsence of	indicators.)				
Depth	Matrix		Red	ox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-8"	10yr 4/2	100					Silt Loam				
8-20"	10yr 5/3	100			·		Silt Loam				
	1091 0/0			·	·		One Loann				
· ·					·						
·											
¹ Type: C=C	oncentration, D=Deplet	ion, RM=Reduced	Matrix, CS=Covered	l or Coated S	Sand Grains.	² Locatio	on: PL=Pore Lining	, M=Matrix.			
Hydric Soil II	ndicators ³ :					Test	Indicators of Hydr	ic Soils:			
Histoso			Sandy Gleyed					nese Masses (F12)			
	pipedon (A2)		Sandy Redox					w Dark Surface (F22)			
	istic (A3)		Stripped Matr				Other (Expla	ain in Remarks)			
	en Sulfide (A4)		Dark Surface	. ,							
	d Layers (A5)		Loamy Mucky								
	uck (A10)		Loamy Gleye								
· · ·	d Below Dark Surface ((A11)	Depleted Mat				3-, , , , , , , , , , ,				
	ark Surface (A12)		Redox Dark S	. ,				dicators have been updated to			
	Mucky Mineral (S1)		Depleted Dar		()			e Field Indicators of Hydric Soils			
5 CHI M	ucky Peat or Peat (S3)		Redox Depre	SSIONS (FO)			in the United S	States, Version 8.0, 2016.			
Restrictive L	ayer (if observed):										
Туре:		<u> </u>									
Depth (ir	nches):					Hydric \$	Soil Present?	Yes <u>No X</u>			
HYDROLO											
-	rology Indicators:										
	ators (minimum of one	is required: check			2)			tors (minimum of two required)			
	Water (A1)		Water-Staine		9)			I Cracks (B6)			
	ater Table (A2)		Aquatic Faun					atterns (B10)			
Saturati	on (A3) /arks (B1)		True Aquatic Hydrogen Sul				Dry-Season Water Table (C2) Cravfish Burrows (C8)				
	nt Deposits (B2)		Oxidized Rhiz		,	c (C2)		()			
	posits (B3)		Presence of F	-	-	s (C3)		/isible on Aerial Imagery (C9) Stressed Plants (D1)			
	at or Crust (B4)		Recent Iron R			26)		c Position (D2)			
	posits (B5)		Thin Muck Su			50)	FAC-Neutra				
	ion Visible on Aerial Im	agony (B7)	Gauge or We	. ,							
	y Vegetated Concave S	0,(,,	Other (Explain		3)						
· ·	, 0	Janaco (20)									
Field Observ		., ., .,									
Surface Wate		Yes No X									
Water Table		Yes No X	,		Wetlend	Undrolog	w Brocont?				
Saturation Pr (includes cap		Yes No X	Depth (inches):	: >18"	wettand	пуагоюд	y Present?	Yes <u>No X</u>			
· · · · · · · · · · · · · · · · · · ·	corded Data (stream ga	uae monitorina v	ell aerial photos pre	vious inspec	tions) if ava	ilable:					
Dooonborto	bordoù Bata (biroann ge	idge, monitoring t	ion, donar priotoo, pro		, in ava	ilabio.					
Remarks:											

Project/Site:	Republic Wind Farm				City/Coun	ty: Seneca	Sa	ampling Date: 12/5/2017
Applicant/Owner:	Apex Clean Energy				Sta	te: OH	Sampling Point:	who-267-wet
Investigator(s):	BRH					Section, Towns	hip, Range:	
Landform (hillslope,	terrace, etc.):	Summit				Lo	cal relief (concave, convex, none): con	cave
Slope (%):	0%	Lat:	41.1687		Long:		-82.8897	Datum: WGS84
Soil Map Unit Name	a: Pa						NWI classificat	tion: none
Are climatic / hydrol	ogic conditions on the si	e typical for this time of yea	r?		Yes	s <u>X</u> No	(If no, explain in Remarks.)	
Are Vegetation	N	, Soil N	, or Hydrology	N significantly	disturbed?	Are "Norm	al Circumstances" present?	Yes X No
Are Vegetation	N	, Soil N	, or Hydrology	N naturally pro	blematic?	(If needed	, explain any answers in Remarks.)	
SUMMARY OF	FINDINGS Attac	h site map showing	sampling point locati	ions, transects,	important featu	ures, etc.		
Hydrophytic Ve	getation Present?		Yes x	No	ls th	e Sampled A	ea	
Hydric Soil Pres			Yes x	No	with	in a Wetland?	Yes <u>x</u>	No
Wetland Hydrol	ogy Present?		Yes x	No				
Remarks: VEGETATION	Use scientific na	mes of plants.		Absolut	e Dominant	Indicator	1	
Tree Stratum (Plot	size: 30' radius)			% Cove		Status	Dominance Test worksheet:	
1. Quercus palust	ris			40%	Yes	FACW		
2. Acer saccharin	um			40%	Yes	FACW	Number of Dominant Species	
3.							That Are OBL, FACW, or FAC:	3 (A)
4.								
5.							Total Number of Dominant	
				80%	= Total Cover		Species Across All Strata:	3(B)
Sapling/Shrub Strat	um (Plot size: 15' radius)					Percent of Dominant Species	
1							That Are OBL, FACW, or FAC:	100% (A/B)
2								
3.								
4							Prevalence Index worksheet:	
5.								
					= Total Cover		Total % Cover of:	Multiply by:
							That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	· · · ·			2024	X	0.01	OBL species 20%	x1 = 0.2
1. Carex tribuloide	IS .			20%	Yes	OBL	FACW species 80%	x2 = <u>1.6</u>
2							FAC species	x3 =
3 4							FACU species	x4 = x5 =
4 5.							Column Totals: 1.00	(A) 1.8 (B)
6.								(A) <u>1.0</u> (D)
7							Prevalence Index = B/A	= 1.80
8.								
9.								
10.							Hydrophytic Vegetation Indicators	5:
11.								
12.							X 1-Rapid Test for Hydrophy	tic Vegetation
13.							X 2-Dominance Test is >50%	, D
14.							X 3-Prevalence Index is ≤3.0	1
15.							4-Morphological Adaptation	ns ¹ (Provide supporting
16.							data in Remarks or on a s	eparate sheet)
17.							Problematic Hydrophytic V	/egetation ¹ (Explain)
18								
19							¹ Indicators of hydric soil and wetland	d hydrology must
20.							be present, unless disturbed or prot	plematic.
				20%	= Total Cover			
r								
Woody Vine Stratur	n (Plot size: 30' radius)						Hydrophytic	
1							Vegetation	
2							Present? Yes X	No
					= Total Cover			
Remarks: (Include	photo numbers here or o	n a separate sheet.)						
L								

SOIL

Profile Descr	iption: (Describe to th	e depth need	led to document the in	dicator or c	onfirm the al	bsence o	f indicators.)	
Depth	Matrix		Red	ox Features		-		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8"	10yr 4/2	90	10yr 3/6	10	С	М	Silt Loam	
8-20"	10yr 6/2	90	10yr 4/6	10	С	М	Silt Loam	
· ·							· ·	
					,			
·								
¹ Type: C=Co	oncentration, D=Depletio	on, RM=Redu	ced Matrix, CS=Covered	d or Coated	Sand Grains.	² Locati	ion: PL=Pore Lining	, M=Matrix.
Hydric Soil Ir							t Indicators of Hydr	
Histosol	l (A1)		Sandy Gleye	d Matrix (S4))		Iron-Manga	nese Masses (F12)
Histic E	pipedon (A2)		Sandy Redox					w Dark Surface (F22)
	istic (A3)		Stripped Mat				Other (Expl	ain in Remarks)
	en Sulfide (A4)		Dark Surface	. ,				
	d Layers (A5)		Loamy Muck		-			
	uck (A10) d Below Dark Surface (<i>I</i>	(14)	Loamy Gleye)			
· · · ·	ark Surface (A12)	XII)	X Depleted Ma Redox Dark				³ The hydric soil ir	idicators have been updated to
	Aucky Mineral (S1)		Depleted Dai		7)			e Field Indicators of Hydric Soils
	ucky Peat or Peat (S3)		X Redox Depre		•)			States, Version 8.0, 2016.
Restrictive L	ayer (if observed):		·	. ,				
Type:	ayer (il observeu).							
Depth (ir	nches):					Hvdric	Soil Present?	Yes X No
Remarks:	,					,		
HYDROLO								
r								
-	rology Indicators:	roquirod: ob	ack all that apply)				Secondary Indias	tore (minimum of two required)
	ators (minimum of one is Water (A1)	s required. Ch	Water-Staine	d Leaves (B	9)			tors (minimum of two required) il Cracks (B6)
	ater Table (A2)		Aquatic Faur		5)			atterns (B10)
Saturati			True Aquatic)			n Water Table (C2)
	/arks (B1)		Hydrogen Su				Cravfish Bu	
	nt Deposits (B2)		; *		n Living Roots	s (C3)	Saturation	Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence of	Reduced Iron	n (C4)		Stunted or	Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent Iron F	Reduction in	Tilled Soils (C	C6)	X Geomorphi	c Position (D2)
Iron Dep	posits (B5)		Thin Muck S	urface (C7)			X FAC-Neutra	al Test (D5)
Inundati	on Visible on Aerial Ima	gery (B7)	Gauge or We					
X Sparsel	y Vegetated Concave S	urface (B8)	Other (Explai	n in Remark	s)			
Field Observ	ations:							
Surface Wate	er Present?	′es No	X Depth (inches)	: na				
Water Table		′es No	X Depth (inches)	: >18"				
Saturation Pr		′es <u>X</u> No	Depth (inches)	: Surface	Wetland	Hydrolo	gy Present?	Yes X No
(includes cap	illary fringe)							
Describe Des	and Data (atom and			avious inspe	ctions). It avai	llanie.		
Describe Rec	corded Data (stream gau	ige, monitorin	g well, aerial photos, pre			nabio.		
Describe Rec	corded Data (stream gau	ige, monitorin	g well, aerial photos, pro			nabio.		
Describe Rec Remarks:	corded Data (stream gau	ige, monitorin	g well, aerial photos, pro					
	corded Data (stream gau	ige, monitorin	g well, aerial photos, pro					
	corded Data (stream gau	ige, monitorin	g well, aerial photos, pro					
	corded Data (stream gau	ige, monitorin	g well, aerial photos, pro					

Project/Site:	Republic Wind Farm					City/Coun	ty: Seneca	:	Sampling Date: 12/4/2017
Applicant/Owner:	Apex Clean Energy					-	te: OH	Sampling Point:	who-268-upl
Investigator(s):	BRH						Section, Townsh		
Landform (hillslope,		Summit						cal relief (concave, convex, none): co	nvex
Slope (%):	1%	Lat:	41.16849			Long:	-	-82.8909	Datum: WGS84
Soil Map Unit Name			41.10043			Long.		NWI classific	
	-	site typical for this time of ye	or?			Vo	s X No	(If no, explain in Remarks.)	
					·				Vee V Ne
Are Vegetation	<u> </u>	, Soil <u>N</u>	, or Hydrology		ignificantly dist			al Circumstances" present?	Yes X No
Are Vegetation	<u> </u>	, Soil N	, or Hydrology		aturally proble			, explain any answers in Remarks.)	
		ich site map showing	sampling point loc	cations, tra	insects, im				
	getation Present?		Yes	No			e Sampled Ar		
Hydric Soil Pres			Yes	No		with	in a Wetland?	Yes	No <u>x</u>
Wetland Hydrol	ogy Present?		Yes	No	X	-			
Remarks: VEGETATION - Tree Stratum (Plot	Use scientific r	names of plants.			Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Quercus palusti	ris				75%	Yes	FACW		
2.								Number of Dominant Species	
3.								That Are OBL, FACW, or FAC:	1 (A)
4.									
5.								Total Number of Dominant	
					75%	= Total Cover		Species Across All Strata:	4 (B)
Sapling/Shrub Strat	um (Plot size: 15' radi	us)						Percent of Dominant Species	
1. Fagus grandifol		·			10%	No	FACU	That Are OBL, FACW, or FAC:	25% (A/B)
2. Ostrya virginian					60%	Yes	FACU		
3. Acer saccharun					20%	Yes	FACU		
4.								Prevalence Index worksheet:	
5.									
0.					90%	= Total Cover		Total % Cover of:	Multiply by:
					5070	- 10101 00101		That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	size: 5' radius)							OBL species	x1 =
1. Ostrya virginian			_		10%	Yes	FACU	FACW species 75%	x2 = 1.5
2.								FAC species	x3 =
3.								FACU species 100%	x4 = 4
4.								UPL species	x5 =
5.								Column Totals: 1.75	(A) 5.5 (B)
6.									
7.								Prevalence Index = B/	A = 3.14
8.									·
9.									
10.								Hydrophytic Vegetation Indicato	rs:
11.									
12.								1-Rapid Test for Hydroph	ytic Vegetation
13.								2-Dominance Test is >50	
14.								3-Prevalence Index is ≤3	
45								4-Morphological Adaptati	ons ¹ (Provide supporting
16.								data in Remarks or on a	separate sheet)
17.								Problematic Hydrophytic	
18.									
19.								¹ Indicators of hydric soil and wetla	nd hydrology must
20.								be present, unless disturbed or pre-	oblematic.
					10%	= Total Cover			
<u>.</u>					7				
Woody Vine Stratum	n (Plot size: 30' radiu	s)					······································	Hydrophytic	
1.		•						Vegetation	
2.								Present? Yes	No X
						= Total Cover			
						-			
Remarks: (Include)	photo numbers here or	on a separate sheet.)						1	
		a coparato choch							

Profile Desc	ription: (Describe to t	he depth needed	to document the inc	dicator or co	onfirm the al	osence of	indicators.)			
Depth	Matrix			ox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	3	
0-8"	10yr 4/3	100					Silt Loam			
8-20"	10yr 6/3	100					Silt Loam			
					· · · · · ·					
		_								
¹ Type: C=C	Concentration, D=Deplet	ion, RM=Reduced	I Matrix, CS=Coverec	d or Coated S	Sand Grains.	² Locatio	on: PL=Pore Lining	, M=Matrix.		
Hydric Soil I			,				Indicators of Hydr			
Histoso	ol (A1)		Sandy Gleyed	d Matrix (S4)			Iron-Manga	nese Masses (F12)		
Histic E	Epipedon (A2)		Sandy Redox	: (S5)			Very Shallo	w Dark Surface (F22)		
Black H	Histic (A3)		Stripped Matr	rix (S6)			Other (Expla	ain in Remarks)		
	gen Sulfide (A4)		Dark Surface	(S7)			_			
	ed Layers (A5)		Loamy Mucky		-					
	luck (A10)		Loamy Gleye		ł					
·	ed Below Dark Surface	(A11)	Depleted Mat				2			
	Dark Surface (A12)		Redox Dark S	. ,				dicators have been up		
	Mucky Mineral (S1)		Depleted Dar		7)	comply with the Field Indicators of Hydric Soils				
	lucky Peat or Peat (S3)		Redox Depres	SSIONS (⊢8)			in the United S	States, Version 8.0, 20	16.	
	Layer (if observed):									
Type:	· · · ·						- " - · · · · · · · · · · · · · · · · ·	¥		
Deptri (i	inches):					Hyanc	Soil Present?	Yes	No <u>X</u>	
HYDROL	OGY									
	drology Indicators:									
	cators (minimum of one	is required; check	all that apply)				Secondary Indicat	tors (minimum of two re	equired)	
	e Water (A1)	10 1044	Water-Staine	d Leaves (B	9)		-	l Cracks (B6)	iquiloc,	
	/ater Table (A2)		Aquatic Faun	- /	Drainage Patterns (B10)					
	tion (A3)		True Aquatic)	Dry-Season Water Table (C2)					
	Marks (B1)		Hydrogen Sul			Crayfish Burrows (C8)				
	ent Deposits (B2)		Oxidized Rhiz			s (C3)	Saturation \	/isible on Aerial Image	ry (C9)	
Drift De	eposits (B3)		Presence of F	Reduced Iron	ı (C4)		Stunted or S	Stressed Plants (D1)		
Algal M	lat or Crust (B4)		Recent Iron R	Reduction in	Tilled Soils (C	26)	Geomorphic	Position (D2)		
Iron De	eposits (B5)		Thin Muck Su	urface (C7)			FAC-Neutra	ll Test (D5)		
Inundat	tion Visible on Aerial Im	agery (B7)	Gauge or We	Il Data (D9)						
Sparse	ely Vegetated Concave S	Surface (B8)	Other (Explain	n in Remarks	s)					
Field Observ	vations:									
Surface Wat	ter Present?	Yes No X	Depth (inches):	: N/A						
Water Table	Present?	Yes No X								
Saturation P	resent?	Yes No X	Depth (inches):	: >18"	Wetland	Hydrolog	gy Present?	Yes	No <u>X</u>	
(includes car	pillary fringe)									
Describe Re	ecorded Data (stream ga	auge, monitoring w	ell, aerial photos, pre	vious inspec	ctions), if avai	ilable:				
Remarks:										
Remains.										

Project/Site:	Republic Wind Farm				City/Count	y: Seneca		Sampling Date: 12/5/2017
Applicant/Owner:	Apex Clean Energy				-	e: OH	Sampling Point:	who-268-wet
Investigator(s):	BRH					Section, Townsh		
Landform (hillslope,	terrace, etc.):	Summit					al relief (concave, convex, none):	concave
Slope (%):	0%	Lat:	41.1683		Long:	-	-82.8909	Datum: WGS84
Soil Map Unit Name	: Blg1A1				· · · · ·		NWI classif	ication: none
Are climatic / hydrol	ogic conditions on the	site typical for this time of yea	r?		Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	Ν	, Soil N	, or Hydrology N	significantly dist	urbed?	Are "Norma	al Circumstances" present?	Yes X No
Are Vegetation	N	, Soil N	, or Hydrology N	naturally proble	natic?	(If needed,	explain any answers in Remarks.)	
SUMMARY OF	FINDINGS Atta	ch site map showing	sampling point locatio	ns, transects, im	oortant featu	ires, etc.		
Hvdrophvtic Ve	getation Present?		Yes x	No	Is the	e Sampled Ar	ea	
Hydric Soil Pres			Yes X	No	withi	n a Wetland?	Yes x	No
Wetland Hydrol	ogy Present?		Yes X	No				
VEGETATION - <u>Tree Stratum</u> (Plot 1. <u>Quercus palusti</u> 2.		names of plants.		Absolute <u>% Cover</u> 30%	Dominant Species? Yes	Indicator Status FACW	Dominance Test worksheet: Number of Dominant Species	
3.							That Are OBL, FACW, or FAC:	(A)
4					·		Total Number of Device of	
5				30%	= Total Cover		Total Number of Dominant	2 (D)
				30%	= Total Cover		Species Across All Strata:	(B)
1 2	um (Plot size: 15' radi	us)					Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
3 4							Prevalence Index worksheet:	
4 5.					·		Frevalence index worksheet.	
Herb Stratum (Plot 1. Carex lacustris 2. Toxicodendron				100%	= Total Cover Yes No	OBL FAC	Total % Cover of: That Are OBL, FACW, or FAC: OBL species 100% FACW species 30% FAC species 20%	x1 = 1 $x2 = 0.6$ $x3 = 0.6$
2. Toxicodentiion 3. 4. 5.							FACU species UPL species Column Totals: 1.50	$\begin{array}{c} x_{3} - & 0.0 \\ x_{4} = & \\ x_{5} = & \\ (A) & 2.2 (B) \end{array}$
7							Prevalence Index =	3/A =1.47
9 10 11.					·	- <u> </u>	Hydrophytic Vegetation Indica	tors:
12. 13.					·	- <u> </u>	X 1-Rapid Test for Hydrop X 2-Dominance Test is > X 3-Prevalence Index is ≤	50%
14 15.								tions ¹ (Provide supporting
16.							data in Remarks or on	
17.					·			ic Vegetation ¹ (Explain)
18.					·			
19.					·		¹ Indicators of hydric soil and wet	and hydrology must
20.					·		be present, unless disturbed or	problematic.
				120%	= Total Cover			
Woody Vine Stratun	n (Plot size: 30' radiu	3)					Hydrophytic	
1					·		Vegetation	
2							Present? Yes	X No
					= Total Cover			
Remarks: (Include)	photo numbers here or	on a separate sheet.)					1	

SOIL

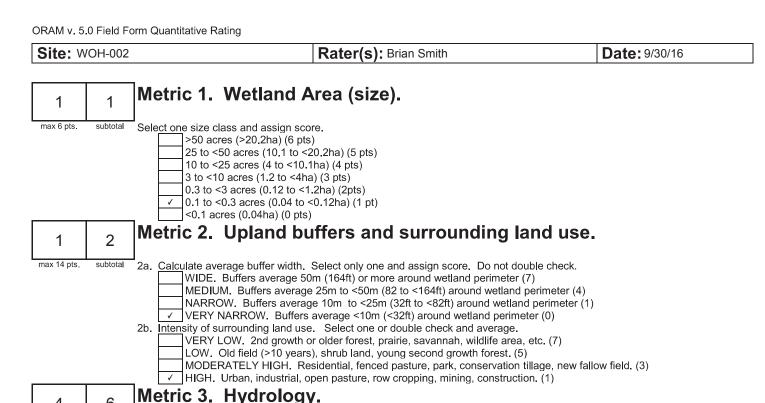
Profile Desc	ription: (Describe to th	e depth neede	d to document the in	dicator or c	onfirm the al	bsence o	f indicators.)	
Depth	Matrix		Red	ox Features		-	-	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8"	10yr 4/2	90	10yr 3/6	10	С	М	Silt Loam	
8-20"	10yr 6/2	90	10yr 4/6	10	С	М	Silt Loam	
					·			
		·						
<u> </u>					·	2		
Type: C=C Hvdric Soil I	oncentration, D=Depletion	on, RM=Reduce	d Matrix, CS=Covered	or Coated S	Sand Grains.		ion: PL=Pore Lining t Indicators of Hydr	
Histoso			Sandy Gleyed	d Matrix (S4)		163		nese Masses (F12)
	pipedon (A2)		Sandy Redox					w Dark Surface (F22)
	listic (A3)		Stripped Mati					ain in Remarks)
	en Sulfide (A4)		Dark Surface					
	ed Layers (A5)		Loamy Mucky)			
	uck (A10)		Loamy Gleye		-			
	ed Below Dark Surface (A	(11)	X Depleted Mat		,			
	ark Surface (A12)	• /	Redox Dark S				³ The hydric soil in	dicators have been updated to
	Mucky Mineral (S1)		Depleted Dar	. ,	7)			e Field Indicators of Hydric Soils
	ucky Peat or Peat (S3)		X Redox Depre		- /			States, Version 8.0, 2016.
Restrictive I	ayer (if observed):							
Type:								
Depth (i	nches).					Hydric	Soil Present?	Yes X No
HYDROL	OGY							
	Irology Indicators:							
-	cators (minimum of one is	required: chec	k all that apply)				Secondary Indica	tors (minimum of two required)
	e Water (A1)	s required. cried	Water-Staine	d Leaves (B	9)			il Cracks (B6)
	ater Table (A2)		Aquatic Faun		0)			atterns (B10)
	ion (A3)		True Aquatic)			Water Table (C2)
	Marks (B1)		Hydrogen Su				Crayfish Bu	
	ent Deposits (B2)		Oxidized Rhiz	,	,	s (C3)		/isible on Aerial Imagery (C9)
	posits (B3)		Presence of I	-	-	0 (00)		Stressed Plants (D1)
	at or Crust (B4)		Recent Iron F		. ,	26)		c Position (D2)
	posits (B5)		Thin Muck Su			,	X FAC-Neutra	
	ion Visible on Aerial Ima	aery (B7)	Gauge or We					· · ·
	ly Vegetated Concave S		Other (Explai		s)			
Field Observ								
Surface Wate		′es No λ	Depth (inches)	: na				
Water Table		es No X						
Saturation Pr		es X No	Depth (inches)		Wetland	Hydrolo	gy Present?	Yes X No
(includes cap	oillary fringe)							
Describe Re	corded Data (stream gau	ge, monitoring	well, aerial photos, pre	evious inspec	ctions), if ava	ilable:		
Remarks:								
Noniaino.								
1								

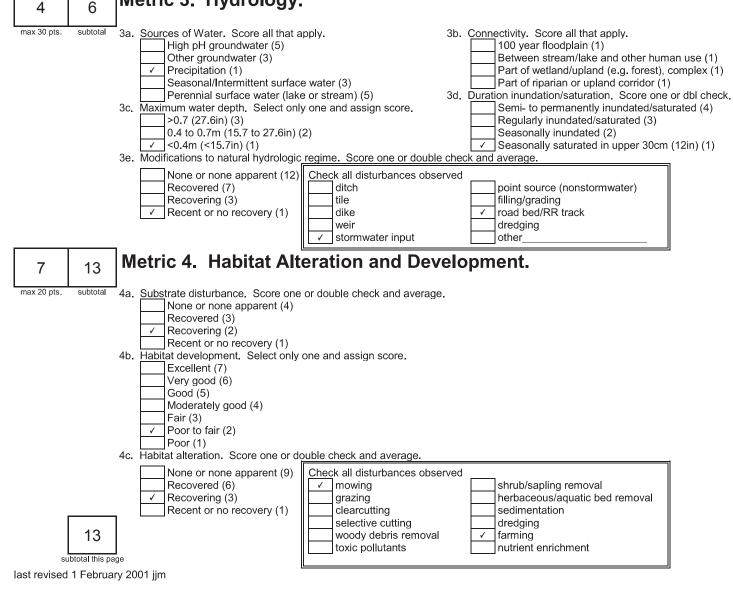
Project/Site:	Republic Wind Farm					City/Count	y: Seneca		Sampling Date: 12/4/2017
Applicant/Owner:	Apex Clean Energy						e: OH	Sampling Point:	who-269-upl
Investigator(s):	BRH						Section, Townsh		
Landform (hillslope,	-	Stream Terrace						al relief (concave, convex, none): c	onvex
Slope (%):	0%	Lat:	41.17057			Long:		-82.893	Datum: WGS84
Soil Map Unit Name								NWI classific	
•		te typical for this time of year	2			Ves	X No	(If no, explain in Remarks.)	
Are Vegetation	-	, Soil N	, or Hydrology N	significar	thy diet			al Circumstances" present?	Yes X No
Are Vegetation	N	, Soil N	, or Hydrology N					explain any answers in Remarks.)	Yes X No
		·	. , .,	'				explain any answers in Remarks.)	
		in site map snowing	sampling point locatio			-			
	getation Present?		Yes		<	-	e Sampled Ar		
Hydric Soil Pres			Yes		<u> </u>	with	n a Wetland?	Yes	No <u>x</u>
Wetland Hydrol	ogy Present?		Yes	No	<				
Remarks:									
	Use scientific na	mag of plants							
VEGETATION		intes of plants.		Abe	olute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)			% C		Species?	Status	Dominance Test worksheet:	
1. Acer saccharun				75		Yes	FACU		
2. Celtis occidenta					1%	No	FAC	Number of Dominant Species	
3.	200				//0			That Are OBL, FACW, or FAC:	1 (A)
-				·				mat Ale OBE, I AGW, OF AG.	(A)
4								Total Number of Dominant	
5								Total Number of Dominant	
				85	1%	= Total Cover		Species Across All Strata:	<u> </u>
O lin (Oh th Ot th									
	um (Plot size: 15' radius			-			54.014	Percent of Dominant Species	2004 (A.D.)
1. Ulmus america					1%	Yes	FACW	That Are OBL, FACW, or FAC:	33% (A/B)
2. Ostrya virginiar				10		No	FACU		
3. Acer saccharun				5		No	FACU		
4. Fraxinus americ	cana			5	%	No	FACU	Prevalence Index worksheet:	
5.									
r				70	1%	= Total Cover		Total % Cover of:	Multiply by:
								That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	size: 5' radius)							OBL species	x1 =
1. Stellaria media				25		Yes	FACU	FACW species 50%	x2 = 1
2. Carex blanda					%	No	FAC	FAC species 20%	x3 = 0.6
3. Sanicula odora	ta			5	%	No	FAC	FACU species 120%	x4 = 4.8
4								UPL species	x5 =
5				<u></u>				Column Totals: 1.90	(A) <u>6.4</u> (B)
6									
7								Prevalence Index = B	/A = 3.37
8									
9									
10								Hydrophytic Vegetation Indicate	ors:
11									
12								1-Rapid Test for Hydrop	
13.								2-Dominance Test is >5	
14								3-Prevalence Index is ≤3	
15								4-Morphological Adaptat	ions ¹ (Provide supporting
16.								data in Remarks or on a	
17								Problematic Hydrophytic	c Vegetation ¹ (Explain)
18									
19								¹ Indicators of hydric soil and wetla	and hydrology must
20.								be present, unless disturbed or present, unless disturbed or present.	roblematic.
				35	i%	= Total Cover			
Woody Vine Stratur	n (Plot size: 30' radius)							Hydrophytic	
1								Vegetation	
2.								Present? Yes	No X
						= Total Cover			
Remarks: (Include	photo numbers here or o	on a separate sheet.)							

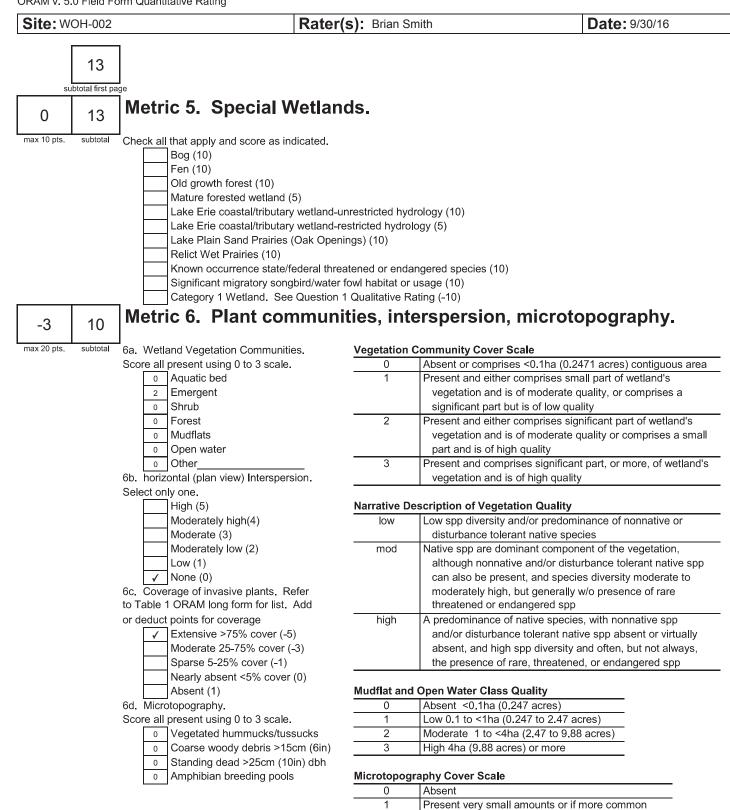
Profile Desci	iption: (Describe to t	he depth needed	to document the in	dicator or co	onfirm the al	bsence of	indicators.)				
Depth	Matrix	-		ox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-8"	10yr 4/2	100					Silt Loam				
8-20"	10yr 5/3	100			·······		Silt Loam				
	1091 0/0										
· ·							·······				
¹ Type: C=C	oncentration, D=Depleti	ion, RM=Reduced	Matrix, CS=Covered	d or Coated S	and Grains.	² Locatio	on: PL=Pore Lining	, M=Matrix.			
Hydric Soil II	ndicators ³ :					Test	Indicators of Hydr	ic Soils:			
Histoso			Sandy Gleye					nese Masses (F12)			
	pipedon (A2)		Sandy Redox					w Dark Surface (F22)			
	istic (A3)		Stripped Mate				Other (Expl	ain in Remarks)			
	en Sulfide (A4)		Dark Surface	. ,							
	d Layers (A5)		Loamy Mucky)						
	uck (A10)		Loamy Gleye								
	d Below Dark Surface (A11)	Depleted Mat				3 	d'actions la sur la sur un defendite			
	ark Surface (A12)		Redox Dark S		7)			dicators have been updated to e Field Indicators of Hydric Soils			
	Mucky Mineral (S1) ucky Peat or Peat (S3)		Depleted Dar Redox Depre		()		1.2	States, Version 8.0, 2016.			
				5510115 (1 0)							
	ayer (if observed):										
Type:											
Depth (ir	nches):					Hydric S	Soil Present?	Yes NoX			
HYDROLO	JGY										
-	rology Indicators:										
	ators (minimum of one	is required: check	11.77					tors (minimum of two required)			
	Water (A1)		Water-Staine	· ·	9)			Surface Soil Cracks (B6)			
	ater Table (A2)		Aquatic Faun				Drainage Patterns (B10)				
Saturati			True Aquatic				Dry-Season Water Table (C2) Crayfish Burrows (C8)				
	/arks (B1)		Hydrogen Su		,	- (00)	Saturation Visible on Aerial Imagery (C9)				
	nt Deposits (B2) posits (B3)		Oxidized Rhiz	•	0	s (C3)	Stunted or Stressed Plants (D1)				
	at or Crust (B4)		Recent Iron F			26)					
	oosits (B5)		Thin Muck St			(C6) Geomorphic Position (D2) FAC-Neutral Test (D5)					
	on Visible on Aerial Im	agony (B7)	Gauge or We	. ,							
	y Vegetated Concave S	0,(,,	Other (Explai		:)						
					,, 						
Field Observ											
Surface Wate		Yes <u>No X</u>	_ Depth (inches)								
Water Table		Yes No X	_ Depth (inches)		Watland	Undrolog	v Brocont?	Yaa Na Y			
Saturation Pr (includes cap		Yes <u>No X</u>	Depth (inches)	: >18"	wettand	пуагоюд	y Present?	Yes <u>No X</u>			
	corded Data (stream ga	uge monitoring w	ell aerial photos pre	evious inspec	tions) if avai	ilable:					
20001120110	Jona Dala (oli oalin ga	ugo, montonig ti									
Remarks:											

Project/Site:	Republic Wind Farm					City/County	/: Seneca	Sa	ampling Date: 12/5/2017
Applicant/Owner:	Apex Clean Energy					State	e: OH	Sampling Point:	who-269-wet
Investigator(s):	BRH						Section, Townsh	nip, Range:	
Landform (hillslope,	terrace, etc.):	Stream Terrace					Loc	cal relief (concave, convex, none): con	cave
Slope (%):	0% La	at:	41.1704			Long:		-82.893	Datum: WGS84
Soil Map Unit Name	e: Pa							NWI classificat	ion: none
Are climatic / hydrol	ogic conditions on the site typic	al for this time of year?				Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	N , Soil		, or Hydrology		significantly dist			al Circumstances" present?	Yes X No
Are Vegetation	<u>N</u> , Soil		, or Hydrology		naturally probler			, explain any answers in Remarks.)	
	FINDINGS Attach site								
	getation Present?		res <u>x</u>	N			e Sampled Ar n a Wetland?		No
Hydric Soil Pres Wetland Hydrol			res <u>x</u> res x	N N	-	- within		Yes <u>x</u>	No
Remarks:	ogy 1 10001111		<u> </u>			•			
riomano.									
VECETATION	Lles scientifis nomes	of plants							
VEGETATION	Use scientific names	or plants.			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)				% Cover	Species?	Status	Dominance Test worksheet:	
1. Quercus palust	ris				70%	Yes	FACW		
2. Populus deltoid	les				30%	Yes	FAC	Number of Dominant Species	
3								That Are OBL, FACW, or FAC:	3(A)
4							·		
5								Total Number of Dominant	
					100%	= Total Cover		Species Across All Strata:	3(B)
Sapling/Shrub Strat	um (Plot size: 15' radius)							Percent of Dominant Species	
1.								That Are OBL, FACW, or FAC:	100% (A/B)
2.									(10)
3.					·	·	·		
4.								Prevalence Index worksheet:	
5.					·				
						= Total Cover		Total % Cover of:	Multiply by:
								That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot								OBL species 10%	x1 = 0.1
1. Carex tribuloide	2S				10%	Yes	OBL	FACW species 70%	x2 = 1.4
2					·			FAC species 30%	x3 = 0.9
3					·		· <u> </u>	FACU species	x4 =
4 5					·			UPL species Column Totals: 1.10	x5 =(A) 2.4 (B)
5 6.					·	·	·		(A) <u>2.4</u> (B)
7.					·		·	Prevalence Index = B/A	= 2.18
8.									
9.					·				
10.								Hydrophytic Vegetation Indicators	6:
11.									
12.								1-Rapid Test for Hydrophyt	tic Vegetation
13.								X 2-Dominance Test is >50%	
14								X 3-Prevalence Index is ≤3.0	
15							·	4-Morphological Adaptation	
								data in Remarks or on a s	
17					·		·	Problematic Hydrophytic V	egetation' (Explain)
18								1 mail and an and hardwise and an elementary	d burden la nu mund
19					·		· <u> </u>	¹ Indicators of hydric soil and wetland	
20					10%	- Total Cause		be present, unless disturbed or prot	pernatic.
					10%	= Total Cover			
Woody Vine Stratur	n (Plot size: 30' radius)							Hydrophytic	
1.								Vegetation	
2.									No
					·	= Total Cover			
						-			
Remarks: (Include	photo numbers here or on a sep	parate sheet.)							

Profile Desc	ription: (Describe to th	ne depth needed	to document the in	dicator or co	onfirm the a	bsence of	indicators.)				
Depth	Matrix		Red	ox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-20"	10yr 6/2	90	10yr 4/6	10	С	М	Silt Loam				
						<u> </u>					
	oncentration, D=Depleti	on, RM=Reduced	Matrix, CS=Covered	d or Coated S	Sand Grains.		on: PL=Pore Lining				
Hydric Soil I						Test	Indicators of Hydr				
Histoso			Sandy Gleye					nese Masses (F12)			
	pipedon (A2)		Sandy Redox					w Dark Surface (F22)			
	listic (A3)		Stripped Mat				Other (Expla	ain in Remarks)			
	en Sulfide (A4) d Layers (A5)		Dark Surface		`						
	uck (A10)		Loamy Gleye		,						
	d Below Dark Surface (A11)	X Depleted Ma								
	ark Surface (A12)	,	Redox Dark S				³ The hvdric soil in	dicators have been updated to			
	Mucky Mineral (S1)		Depleted Dar		7)			e Field Indicators of Hydric Soils			
	ucky Peat or Peat (S3)		X Redox Depre		.,		1,2	States, Version 8.0, 2016.			
	ayer (if observed):			. ,							
Type:	ayer (il observed).										
Depth (ii	nches).					Hydric	Soil Present?	Yes X No			
Remarks:											
HYDROLO											
	rology Indicators:						1.				
-	ators (minimum of one i	is required: check						tors (minimum of two required)			
	Water (A1)		Water-Staine	· ·	9)			I Cracks (B6)			
	ater Table (A2)		Aquatic Faun				Drainage Patterns (B10)				
X Saturati			True Aquatic				Dry-Season Water Table (C2) Crayfish Burrows (C8)				
	/arks (B1)		Hydrogen Su	•	,	c (C2)	Saturation Visible on Aerial Imagery (C9)				
	nt Deposits (B2) posits (B3)		Oxidized Rhized Rhized Presence of I	-	-	S (C3)		Stressed Plants (D1)			
	at or Crust (B4)		Recent Iron F		. ,	2 6)		c Position (D2)			
	posits (B5)		Thin Muck S			50)	X FAC-Neutra	· · · ·			
	ion Visible on Aerial Ima	agery (B7)	Gauge or We								
	y Vegetated Concave S		Other (Explai		5)						
					-,						
Field Observ		No. No. X	Death (incluse)								
Surface Wate		Yes No X	Depth (inches) Depth (inches)								
Water Table Saturation Pr		Yes <u>X</u> No Yes X No	Depth (inches)		Wetland		y Present?	Yes X No			
(includes cap				. Ounace	Wetland	i i i yu olog	jy i resenti				
· · · · · · · · · · · · · · · · · · ·	corded Data (stream ga	uge, monitorina w	ell, aerial photos. pre	evious inspec	tions), if ava	ilable:					
	J	3., 3	. ,		,,						
Remarks:											







End of Quantitative Rating. Complete Categorization Worksheets.

2

3

of marginal quality

and of highest quality

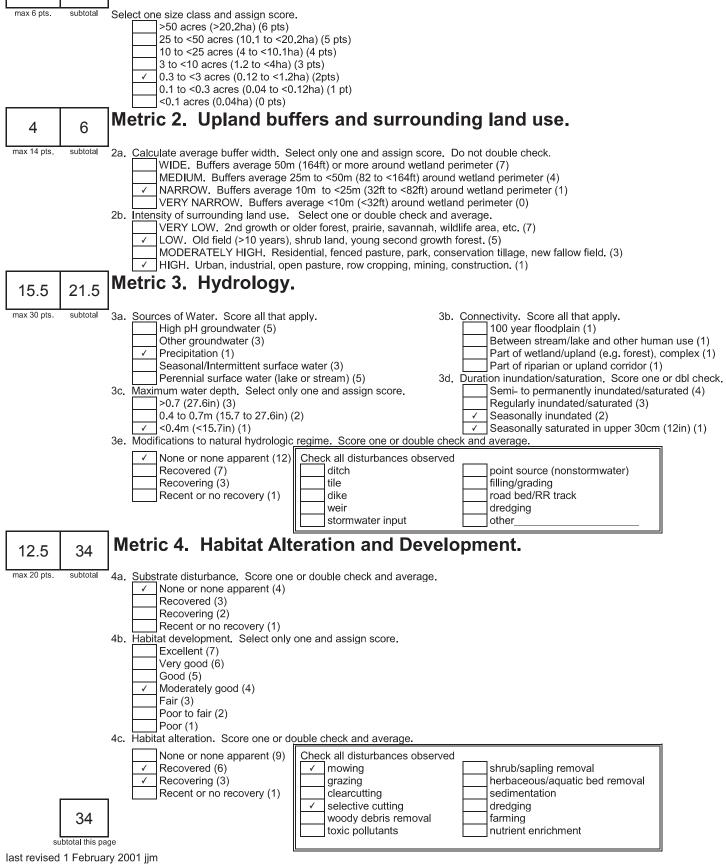
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

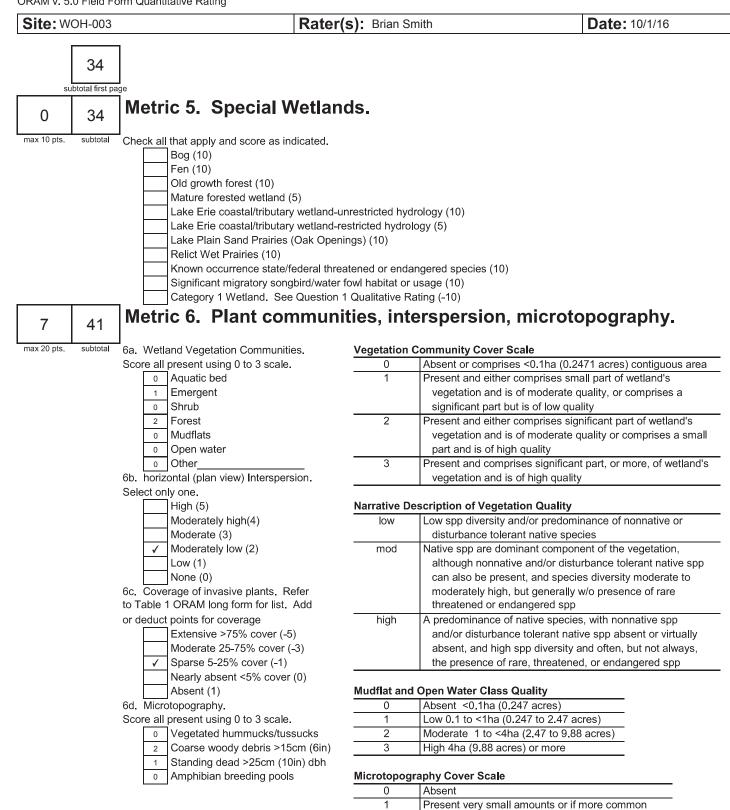
Present in moderate or greater amounts

10

 Site: WOH-003
 Rater(s): Brian Smith
 Date: 10/1/16

 2
 2
 Metric 1. Wetland Area (size).





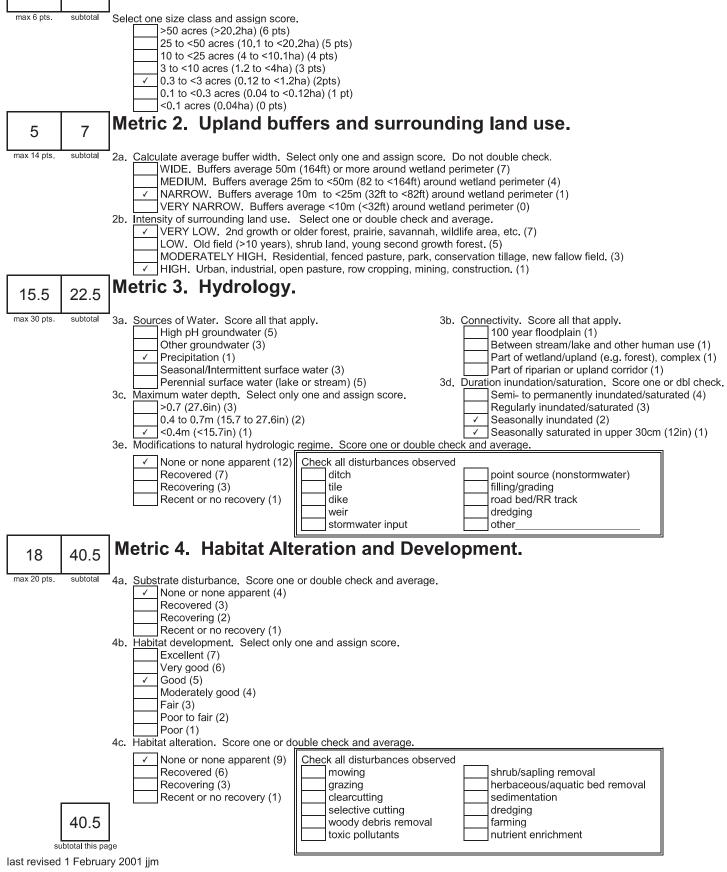
of marginal quality 2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality 3 Present in moderate or greater amounts and of highest quality

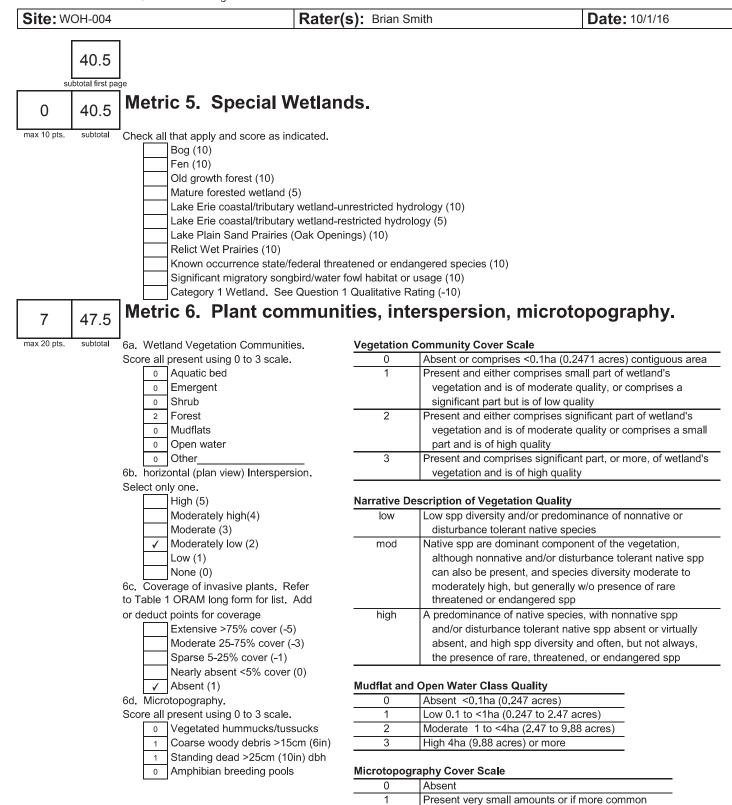
End of Quantitative Rating. Complete Categorization Worksheets.

41

 Site: WOH-004
 Rater(s): Brian Smith
 Date: 10/1/16

 2
 2
 Metric 1. Wetland Area (size).





47.5

End of Quantitative Rating. Complete Categorization Worksheets.

2

3

of marginal quality

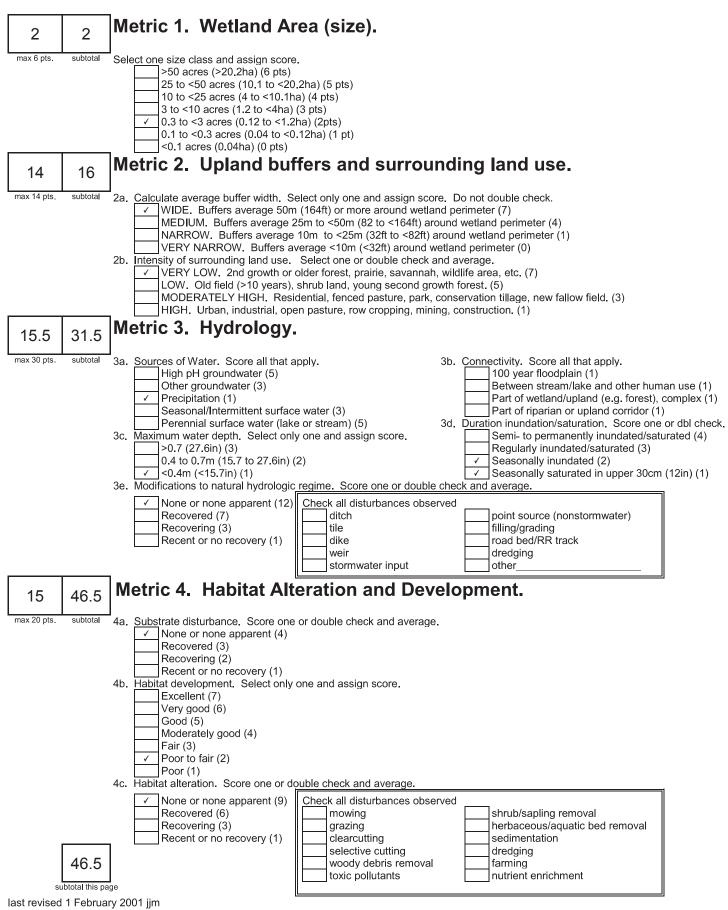
and of highest quality

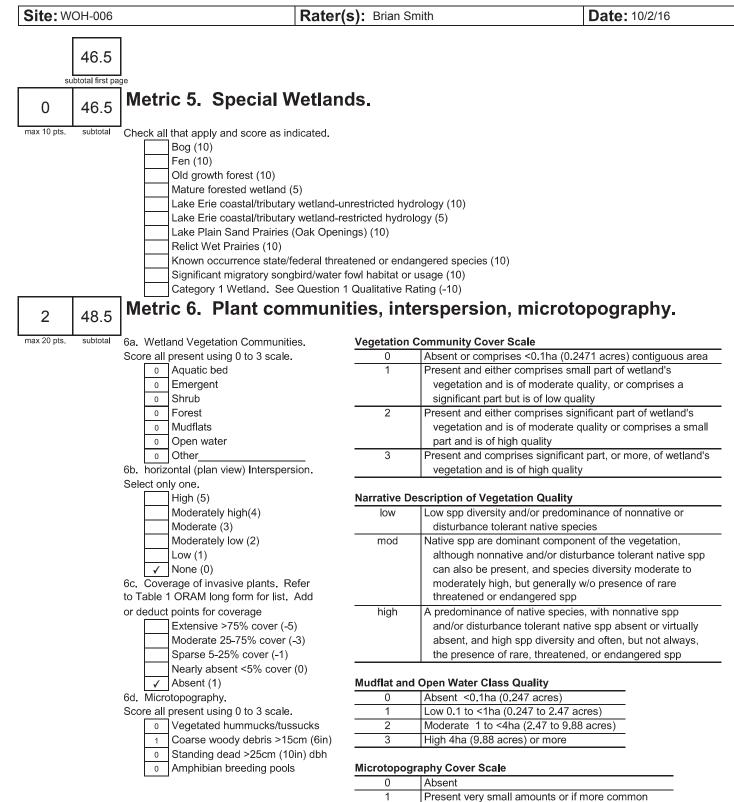
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

Site: WOH-006 Rater(s): Brian Smith

Date: 10/2/16





48.5

End of Quantitative Rating. Complete Categorization Worksheets.

2

3

of marginal quality

and of highest quality

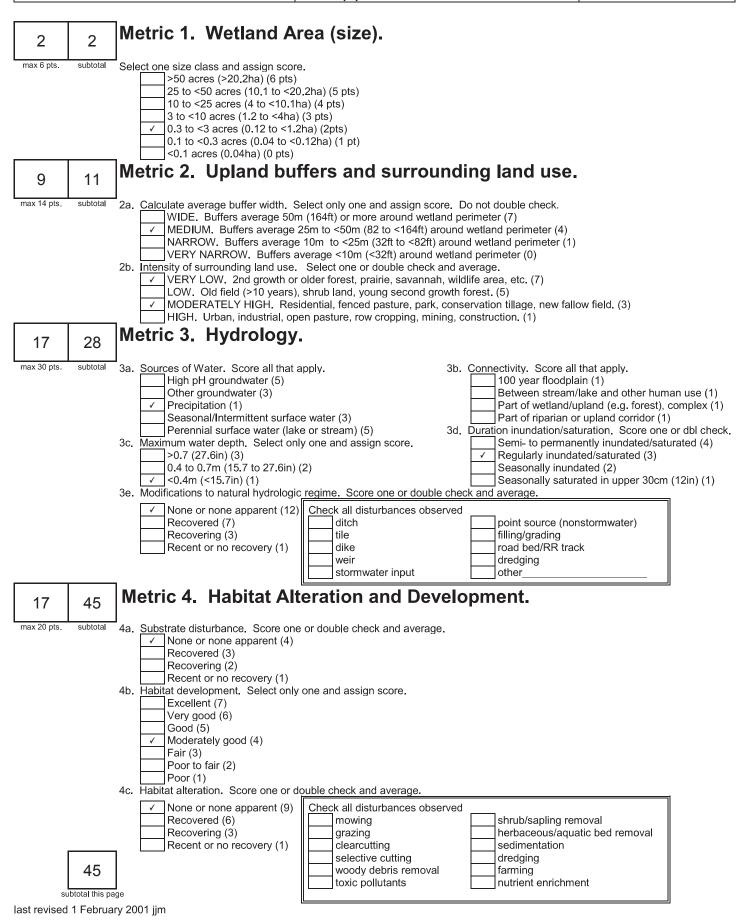
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

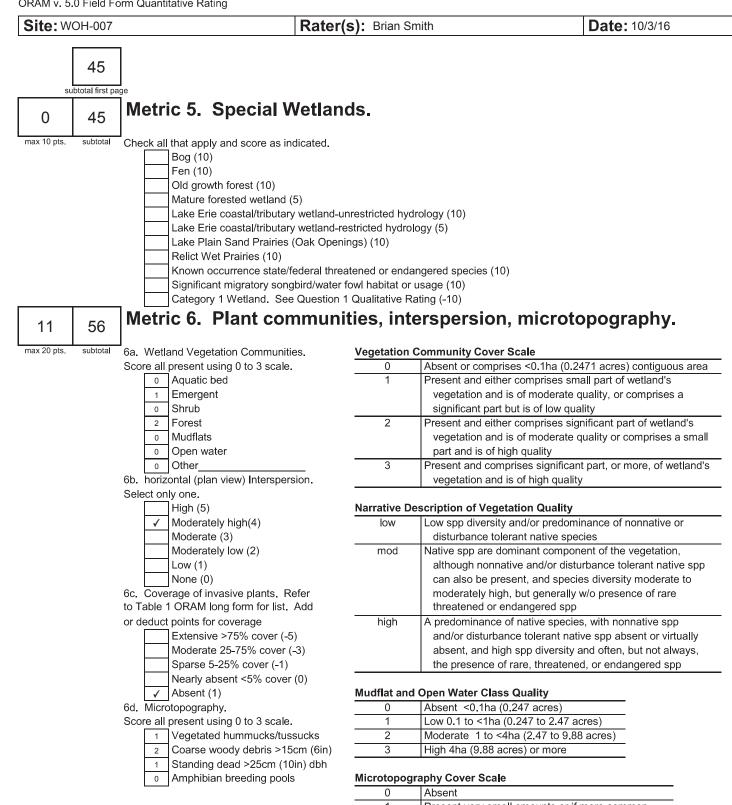
Present in moderate or greater amounts



Rater(s): Brian Smith

Date: 10/3/16

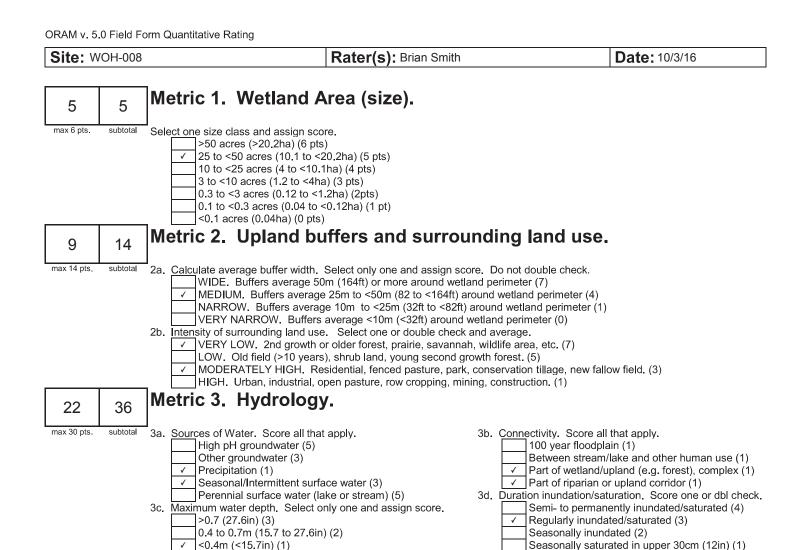


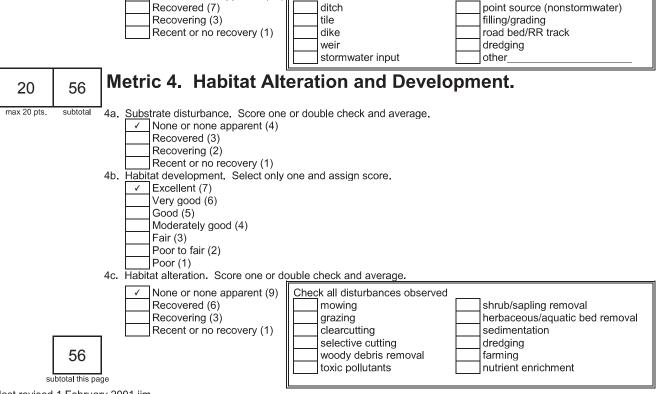


Present very small amounts or if more common 1 of marginal quality 2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality 3 Present in moderate or greater amounts and of highest quality

56

End of Quantitative Rating. Complete Categorization Worksheets.



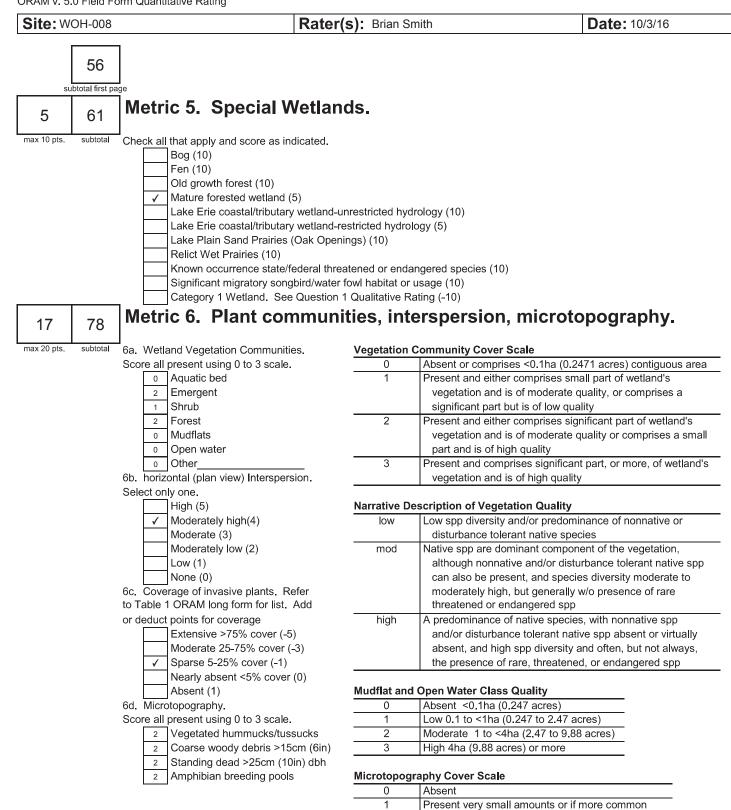


3e. Modifications to natural hydrologic regime. Score one or double check and average.

Check all disturbances observed

None or none apparent (12)

last revised 1 February 2001 jjm



2

3

of marginal quality

and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

 Site: WOH-009
 Rater(s): Brian Smith
 Date: 10/3/16

 3
 3

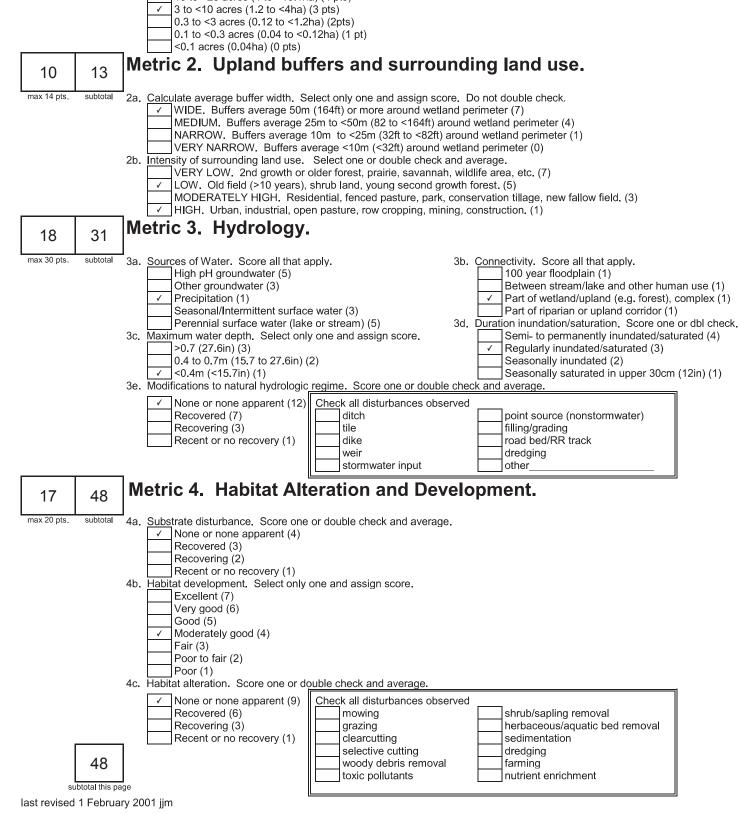
 max 6 pts.
 subtotal

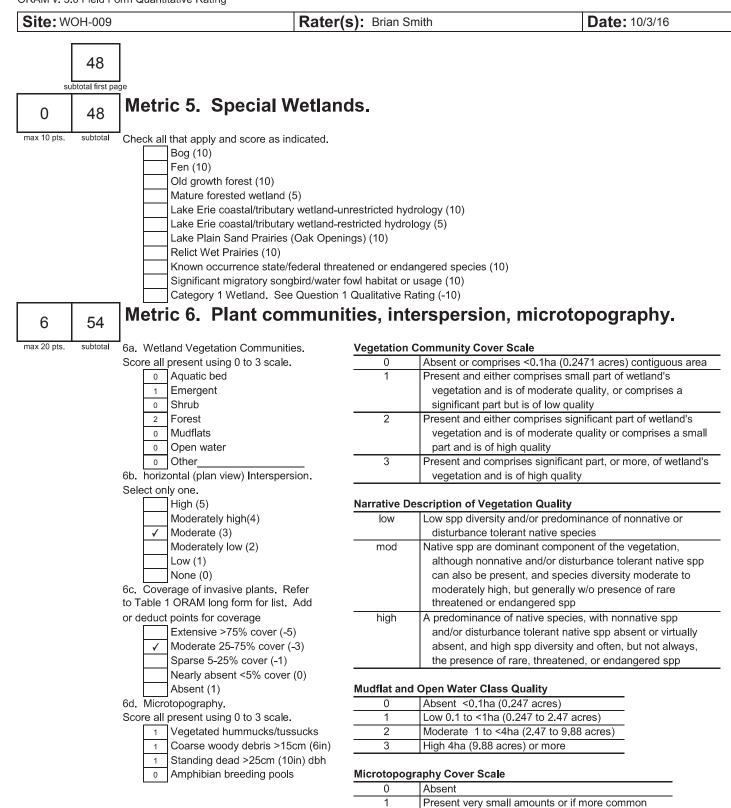
 Select one size class and assign score.

 >50 acres (>20.2ha) (6 pts)

 25 to <50 acres (10.1 to <20.2ha) (5 pts)</td>

 10 to <25 acres (4 to <10.1ha) (4 pts)</td>





2

3

of marginal quality

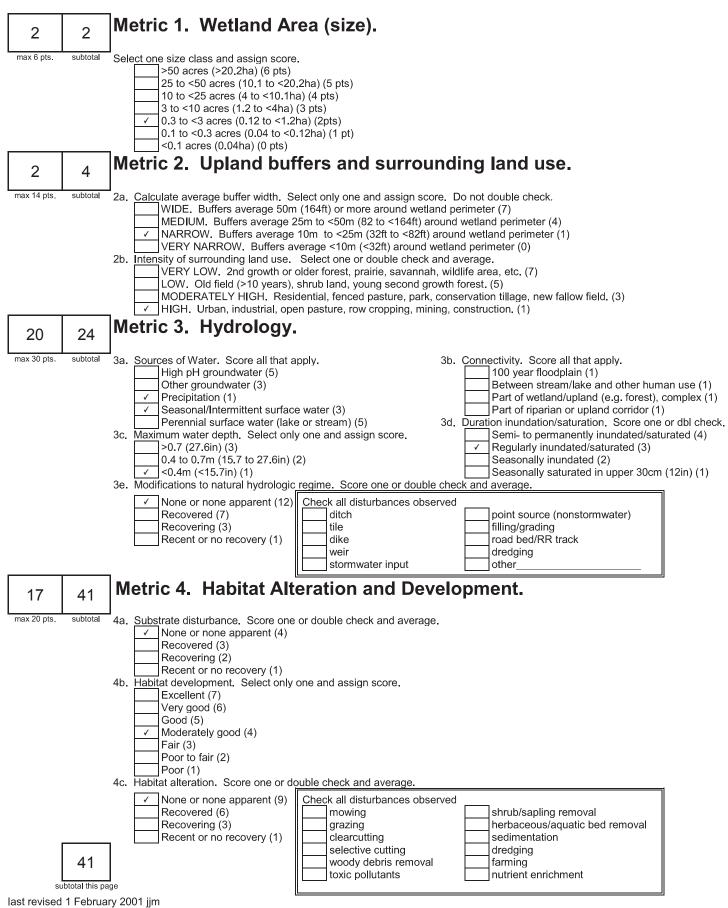
and of highest quality

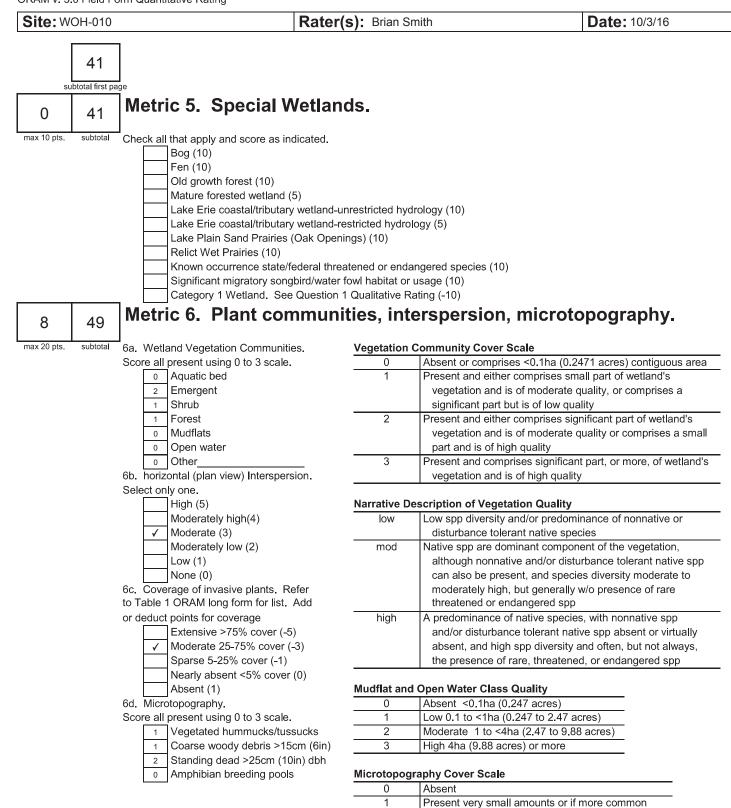
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

Site: WOH-010 Rater(s): Brian Smith

Date: 10/3/16





2

3

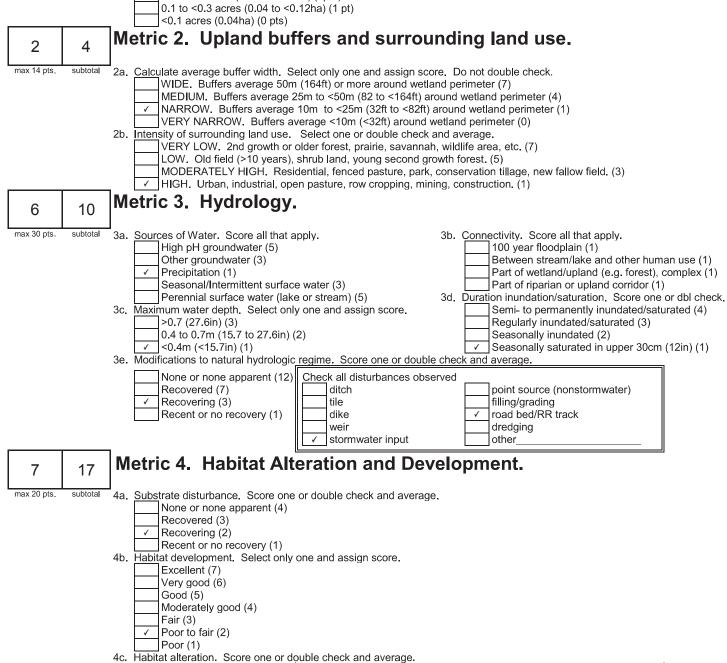
of marginal quality

and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

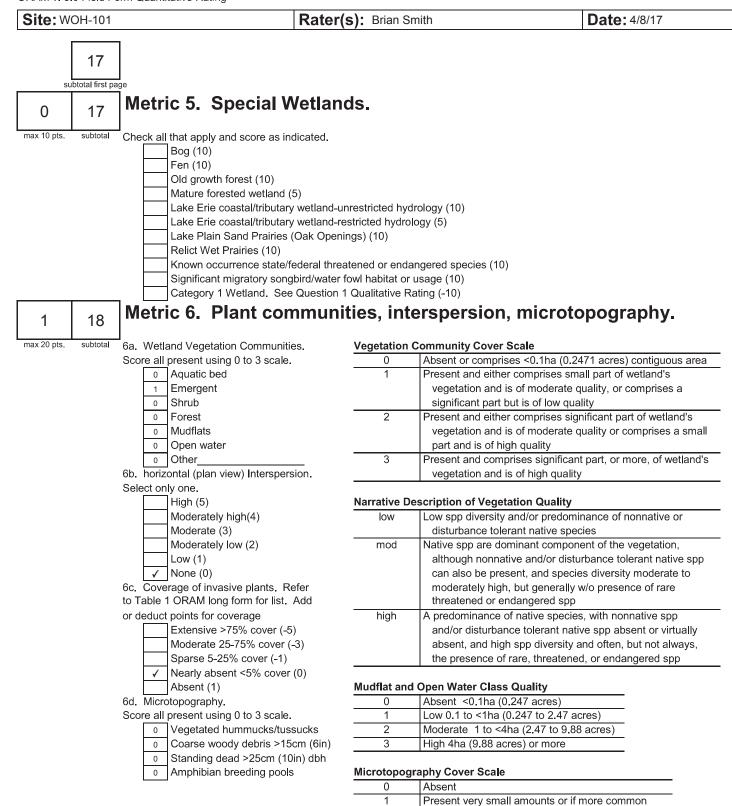
Present in moderate or greater amounts











3 Present in moderate or greater amounts and of highest quality

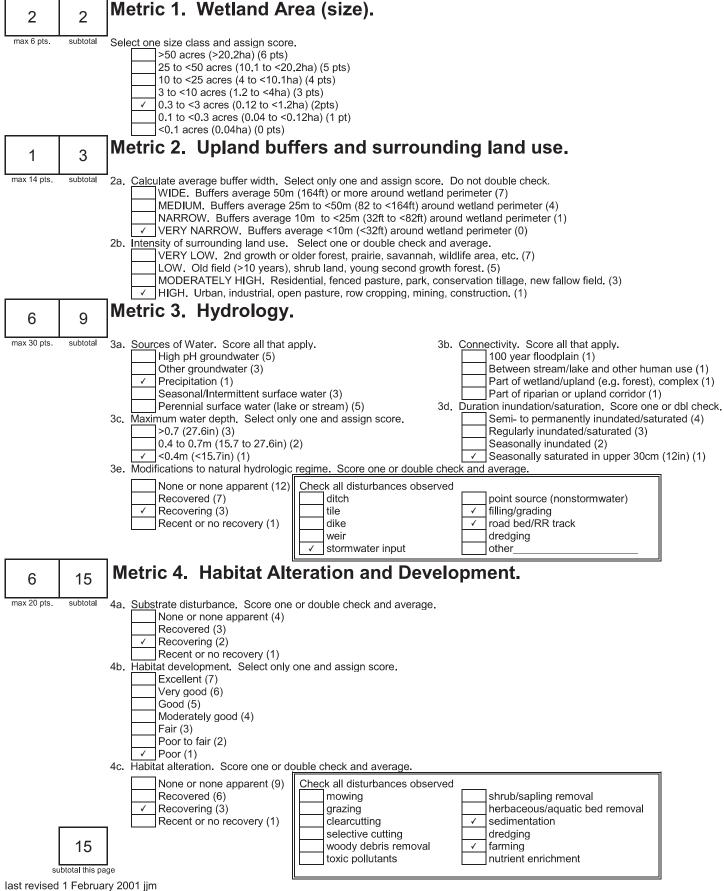
End of Quantitative Rating. Complete Categorization Worksheets.

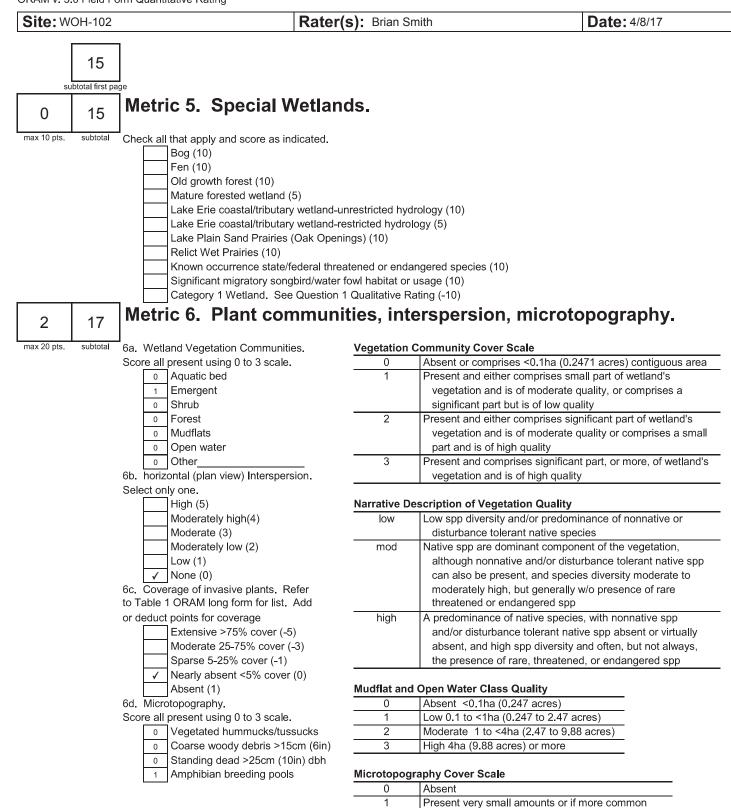
2

of marginal quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Site: WOH-102 Rater(s): Brian Smith Date: 4/8/17





17

End of Quantitative Rating. Complete Categorization Worksheets.

2

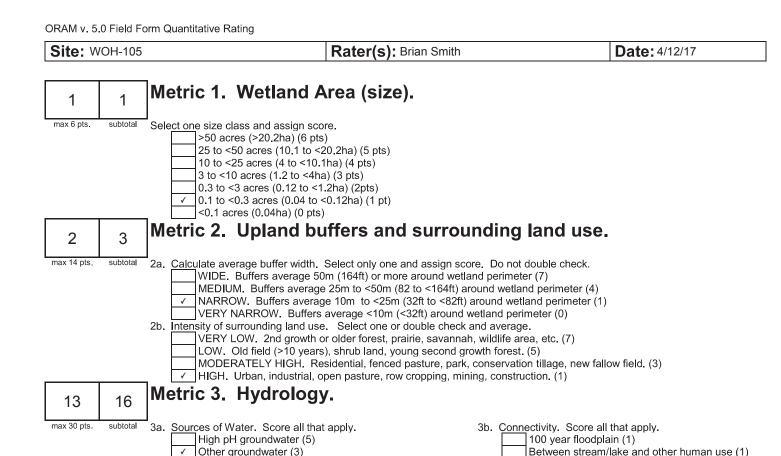
3

of marginal quality

and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts



Part of wetland/upland (e.g. forest), complex (1)

Semi- to permanently inundated/saturated (4)

Seasonally saturated in upper 30cm (12in) (1)

Part of riparian or upland corridor (1)

Regularly inundated/saturated (3)

Seasonally inundated (2)

point source (nonstormwater)

filling/grading

dredging

other

road bed/RR track

shrub/sapling removal

sedimentation

nutrient enrichment

dredging

farming

herbaceous/aquatic bed removal

1

3d. Duration inundation/saturation. Score one or dbl check.

Precipitation (1)

>0.7 (27.6in) (3)

Recovered (7)

Recovering (3)

Recovered (3) Recovering (2)

Excellent (7) Very good (6) Good (5)

Recovered (6)

Recovering (3)

Fair (3) Poor to fair (2) Poor (1)

Moderately good (4)

<0.4m (<15.7in) (1)

3c.

1

Seasonal/Intermittent surface water (3)

0.4 to 0.7m (15.7 to 27.6in) (2)

None or none apparent (12)

Recent or no recovery (1)

None or none apparent (4)

Recent or no recovery (1)

None or none apparent (9)

Recent or no recovery (1)

Perennial surface water (lake or stream) (5)

Maximum water depth. Select only one and assign score.

4a. Substrate disturbance. Score one or double check and average.

4b. Habitat development. Select only one and assign score.

4c. Habitat alteration. Score one or double check and average.

3e. Modifications to natural hydrologic regime. Score one or double check and average.

Metric 4. Habitat Alteration and Development.

ditch

tile

dike

weir

Check all disturbances observed

stormwater input

Check all disturbances observed

woody debris removal

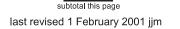
mowing

grazing

clearcutting

selective cutting

toxic pollutants

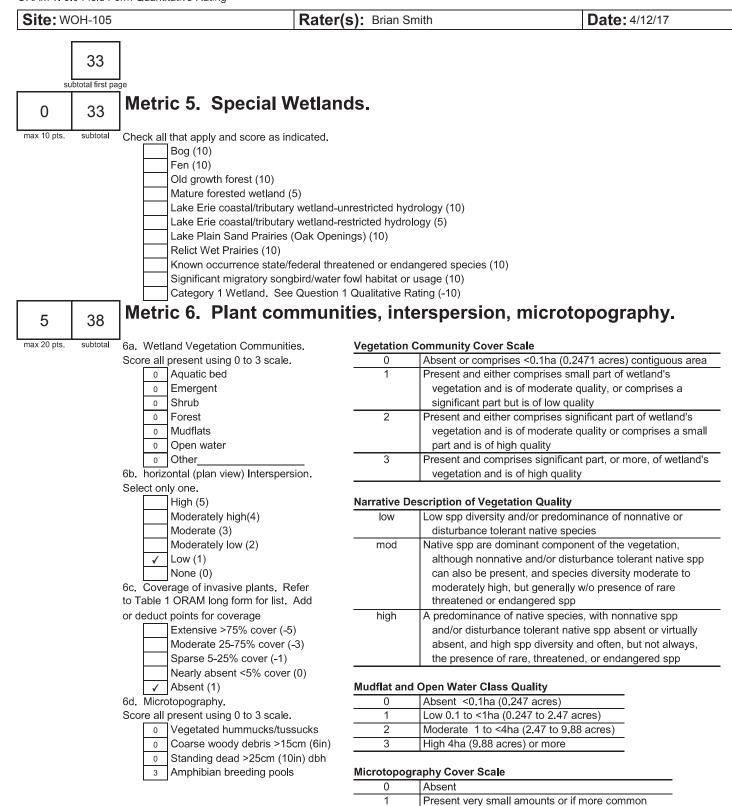


33

33

subtota

17 max 20 pts.



2

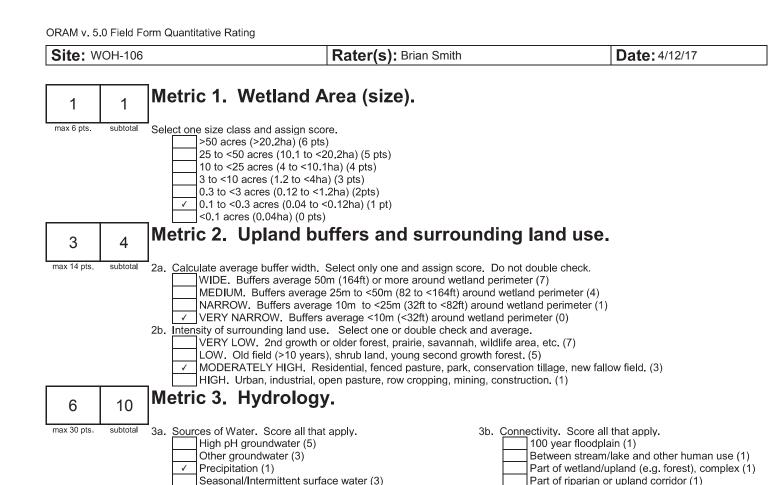
3

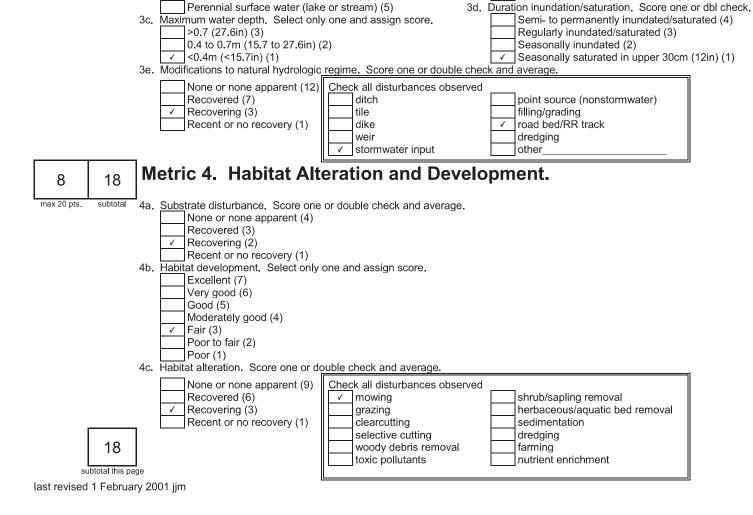
of marginal quality

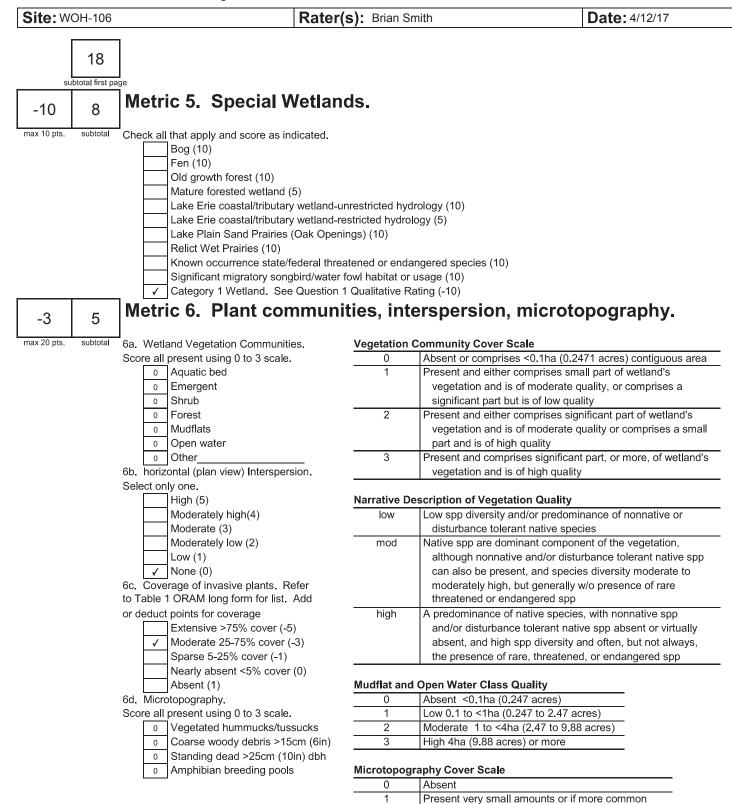
and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts



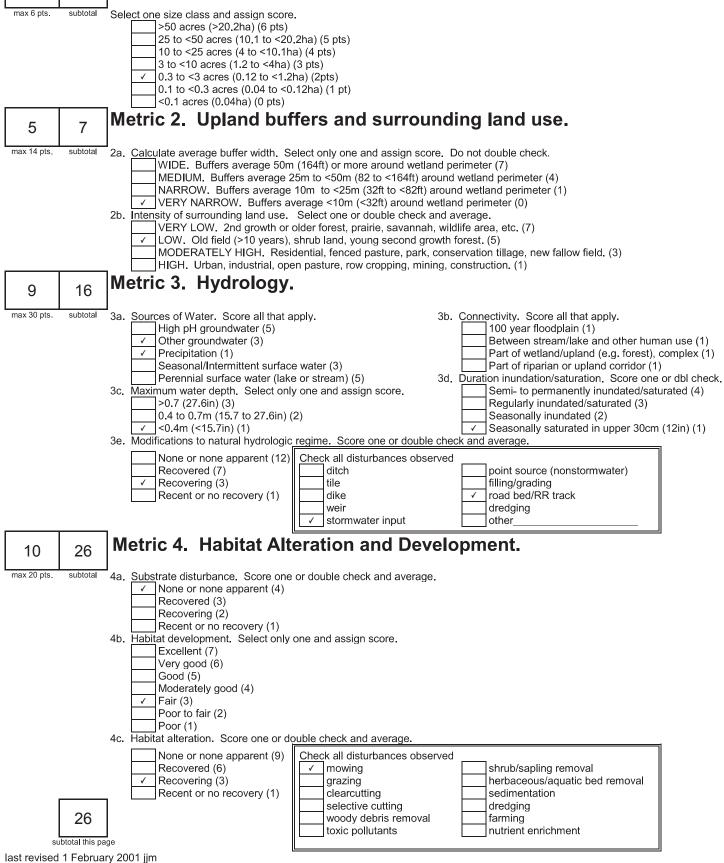


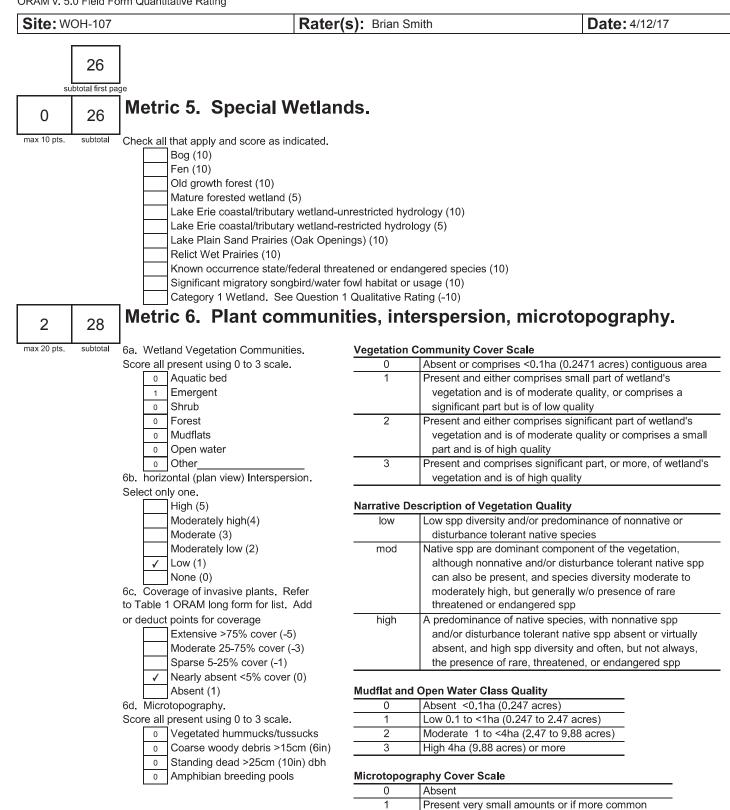


 Present very small amounts of in more common of marginal quality
 Present in moderate amounts, but not of highest quality or in small amounts of highest quality
 Present in moderate or greater amounts
 and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.







2

3

of marginal quality

and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

 Site: WOH-108
 Rater(s): Brian Smith
 Date: 4/12/17

 3
 3

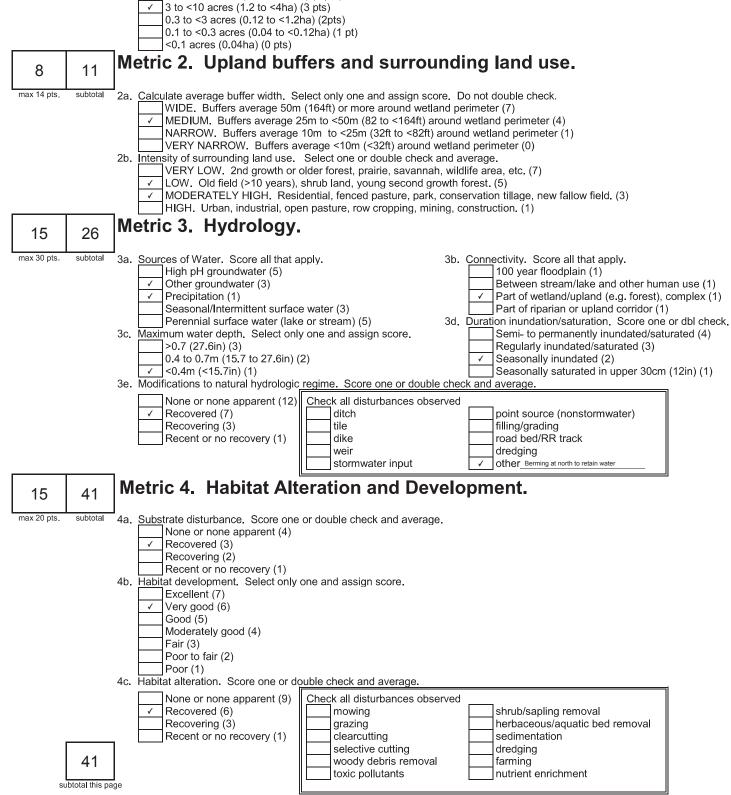
 max 6 pts.
 subtotal

 Select one size class and assign score.

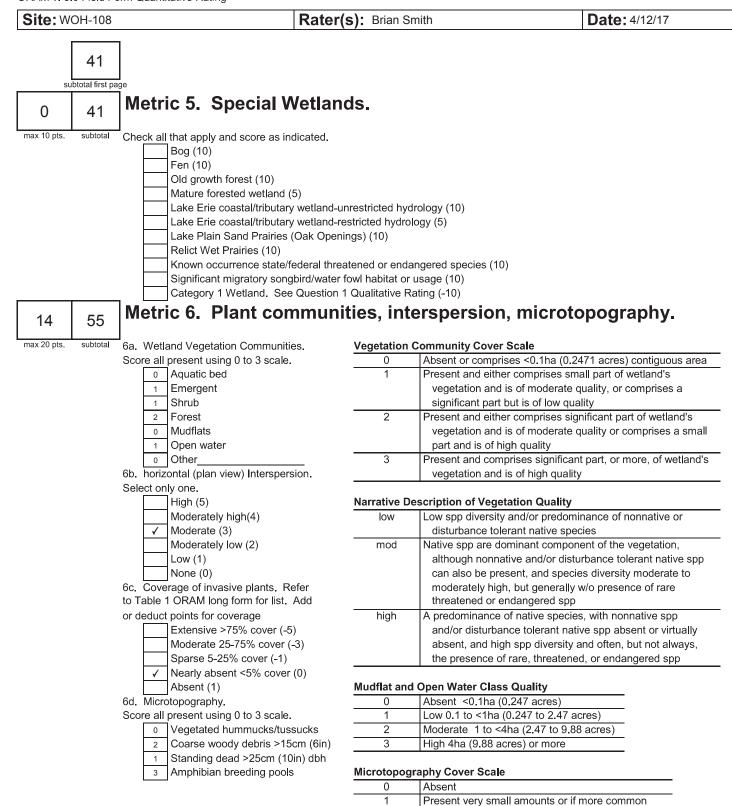
 >50 acres (>20.2ha) (6 pts)

 25 to <50 acres (>20.2ha) (5 pts)

 10 to <25 acres (4 to <10.1ha) (4 pts)</td>



last revised 1 February 2001 jjm



2

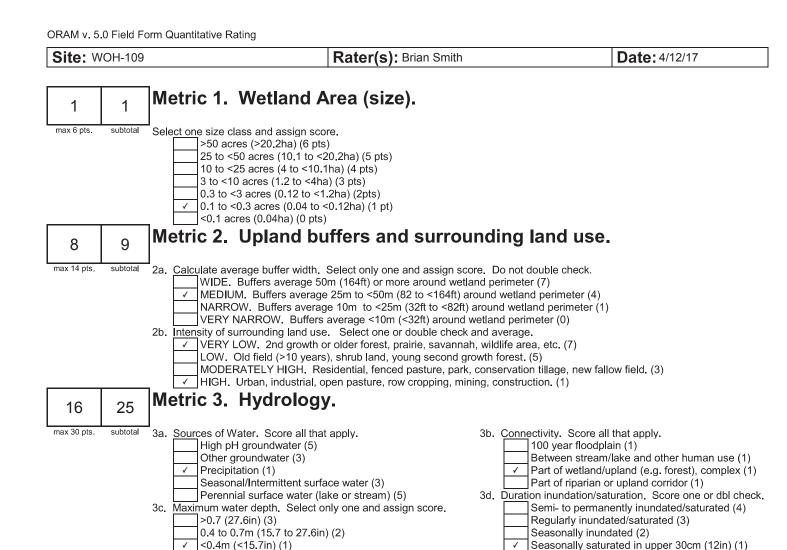
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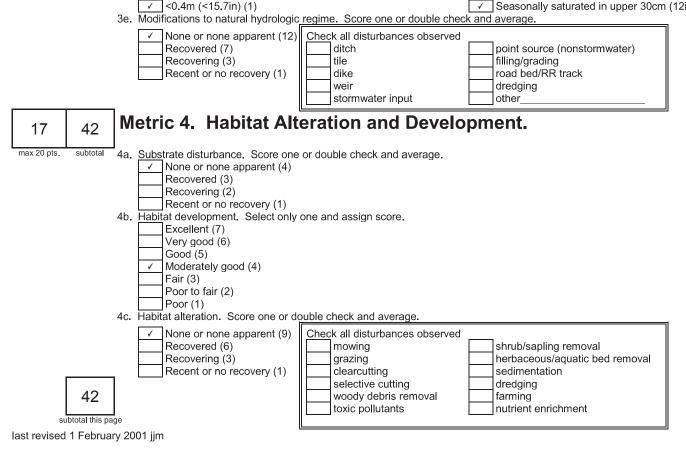
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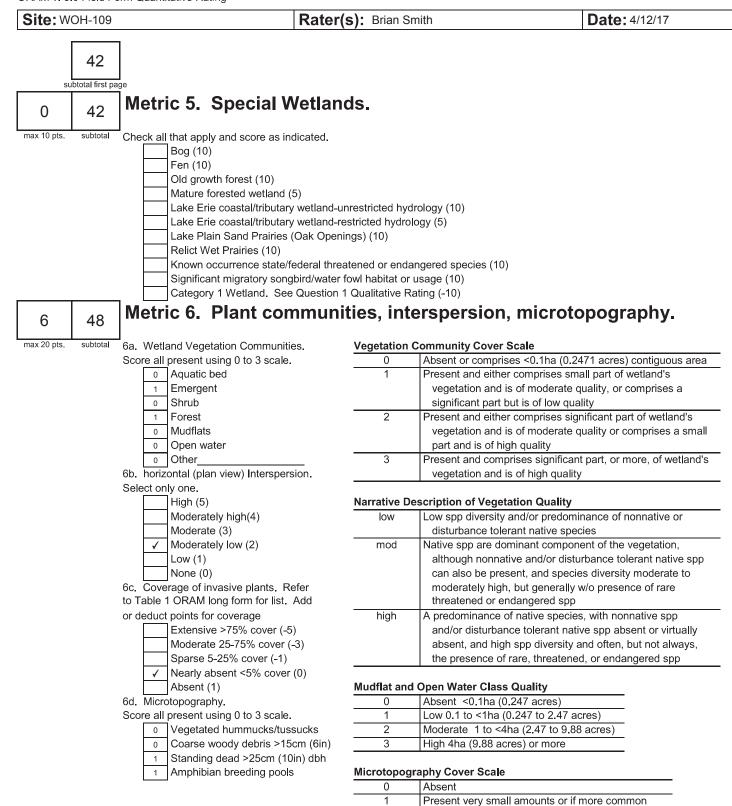
and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts







 of marginal quality

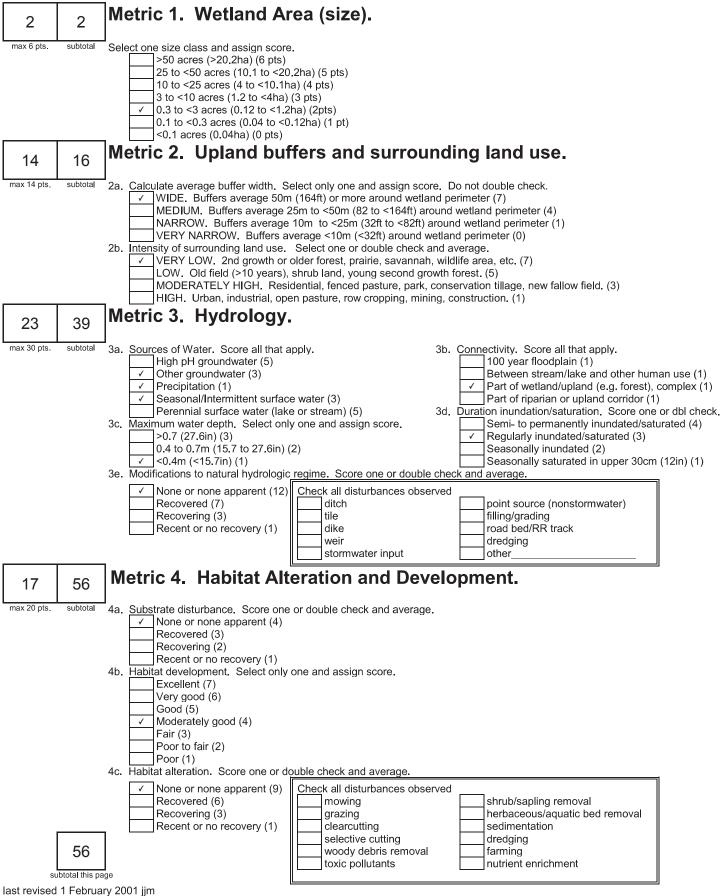
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 Present in moderate amounts, but not of highest quality or in small amounts of highest quality

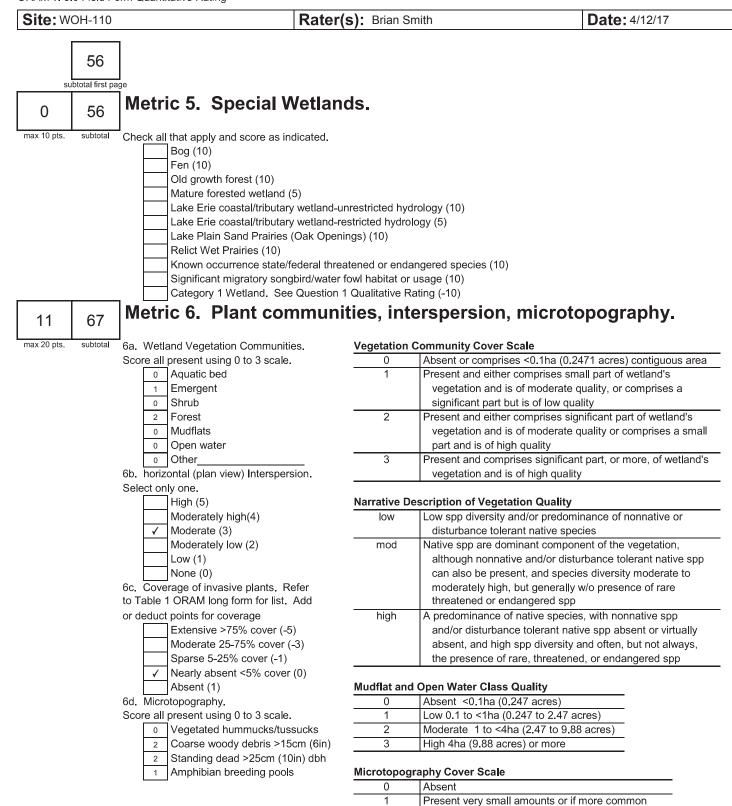
 3
 Present in moderate or greater amounts and of highest quality

48

End of Quantitative Rating. Complete Categorization Worksheets.

Site: WOH-110 Rater(s): Brian Smith Date: 4/12/17





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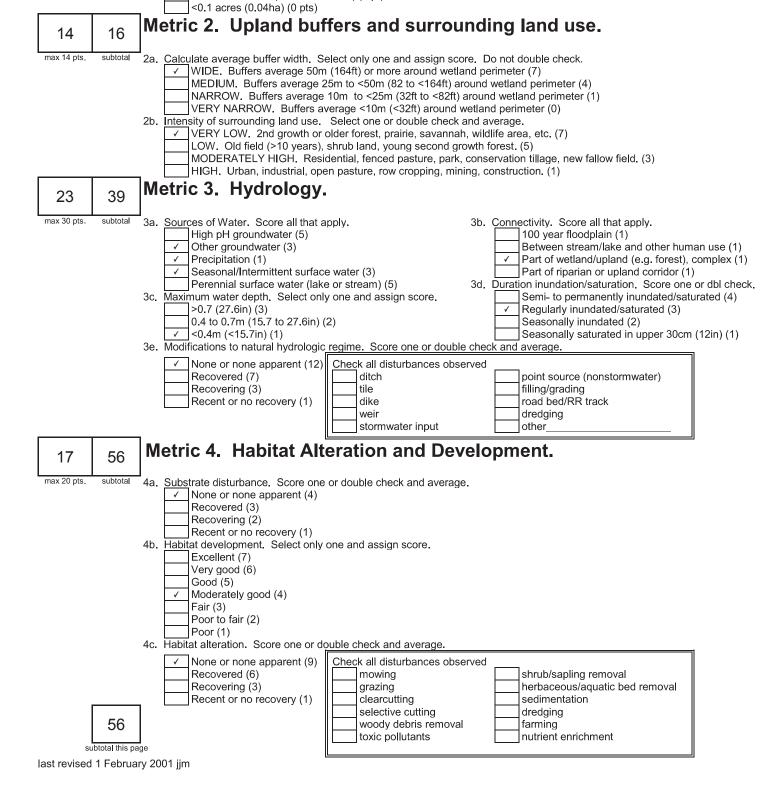
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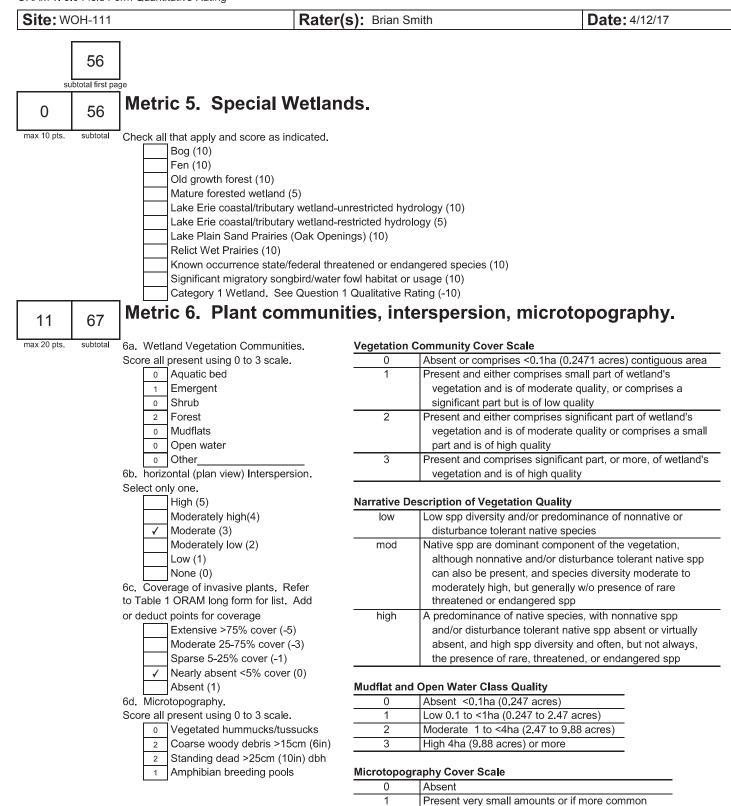
and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts







2

3

of marginal quality

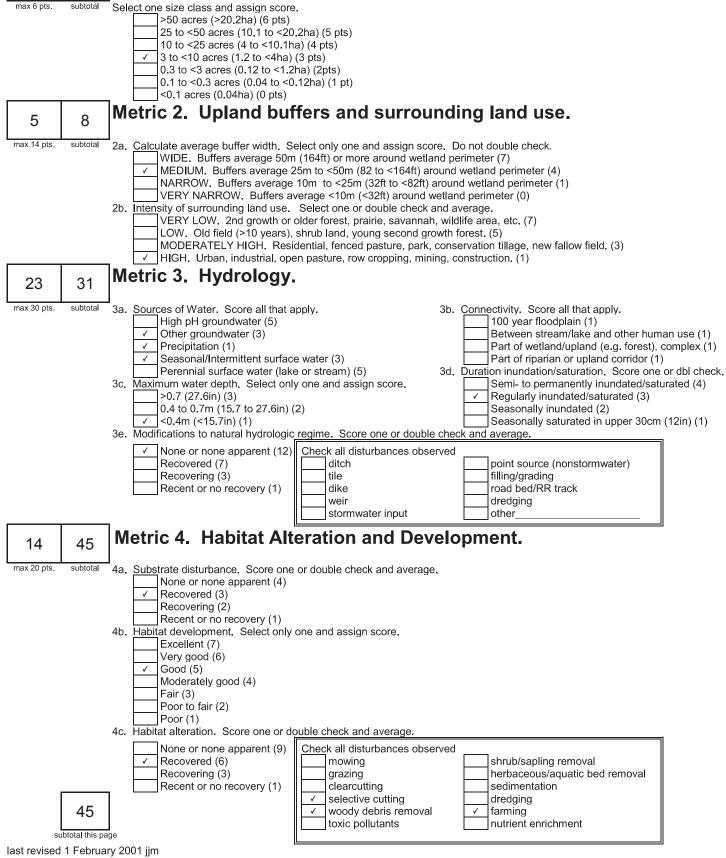
and of highest quality

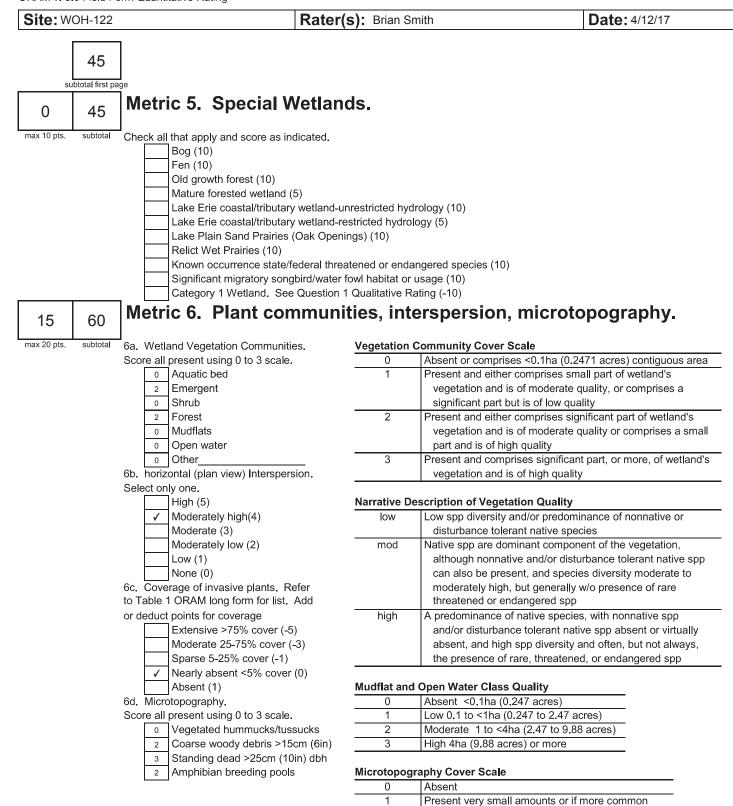
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

 Site: WOH-122
 Rater(s): Brian Smith
 Date: 4/12/17

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 3





2

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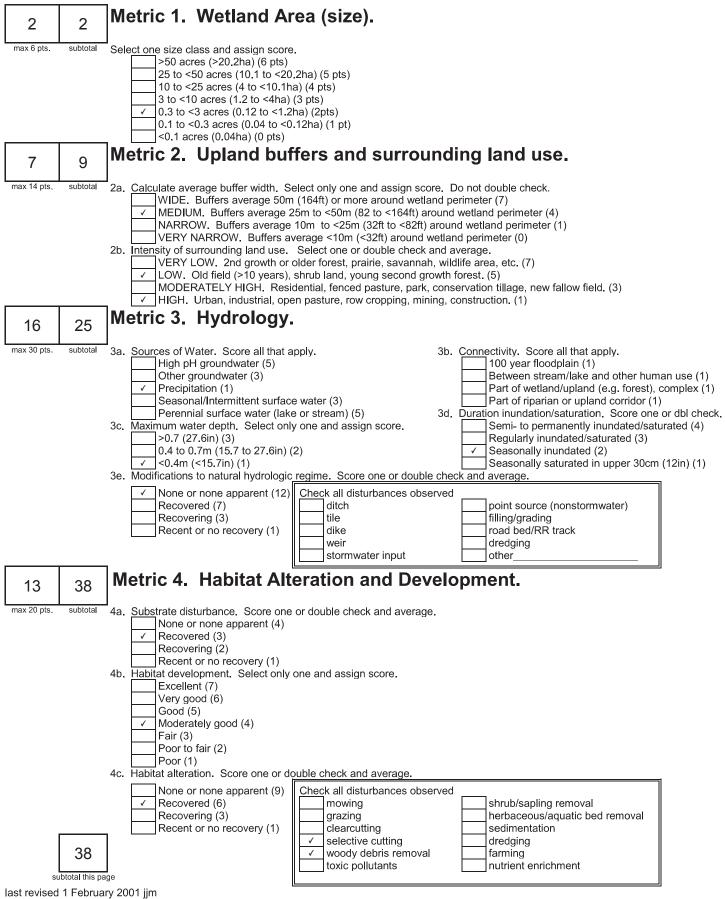
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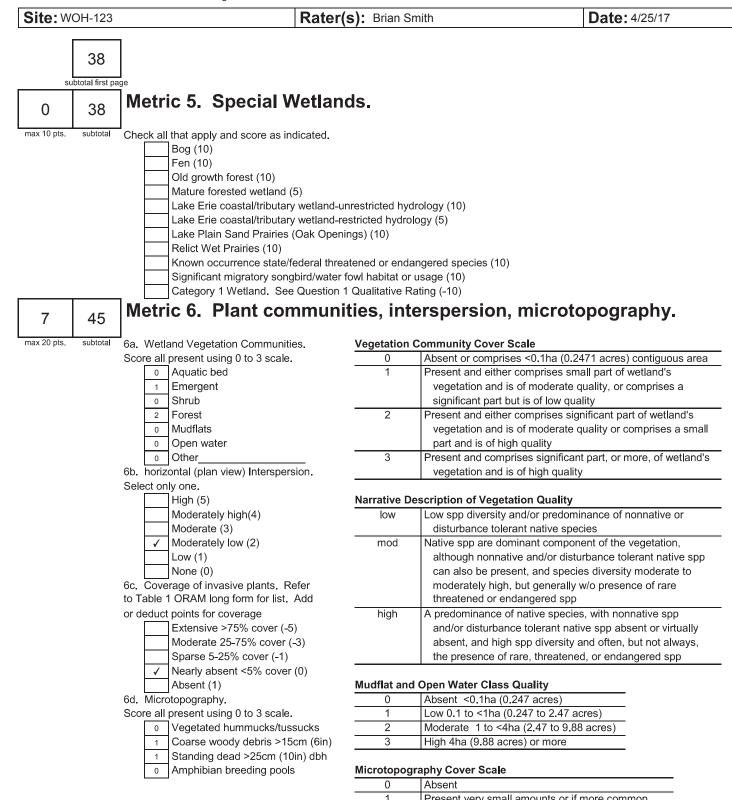
and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

Site: WOH-123 Rater(s): Brian Smith Date: 4/25/17





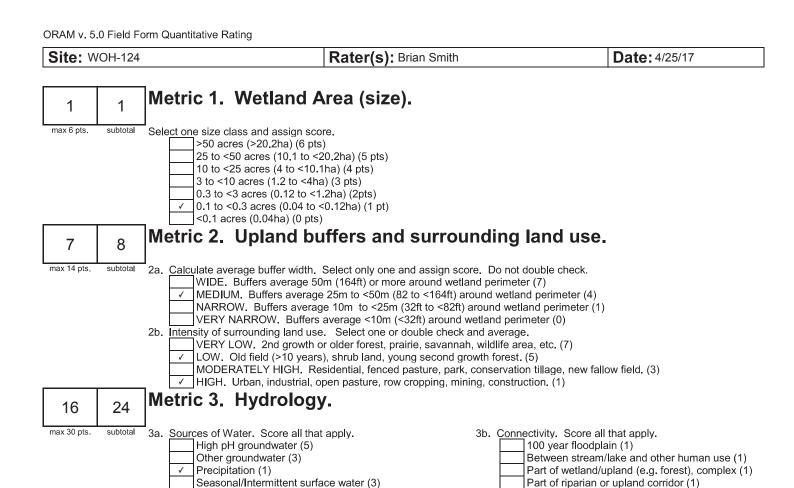
 1
 Present very small amounts or if more common of marginal quality

 2
 Present in moderate amounts, but not of highest quality or in small amounts of highest quality

 3
 Present in moderate or greater amounts and of highest quality

45

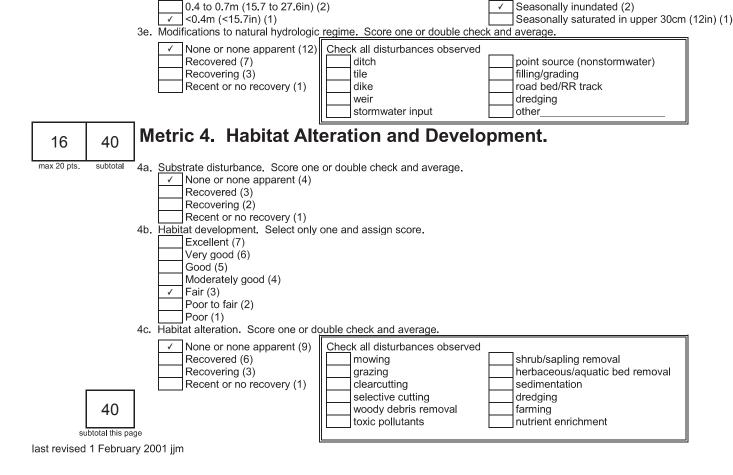
End of Quantitative Rating. Complete Categorization Worksheets.



3d. Duration inundation/saturation. Score one or dbl check.

Regularly inundated/saturated (3)

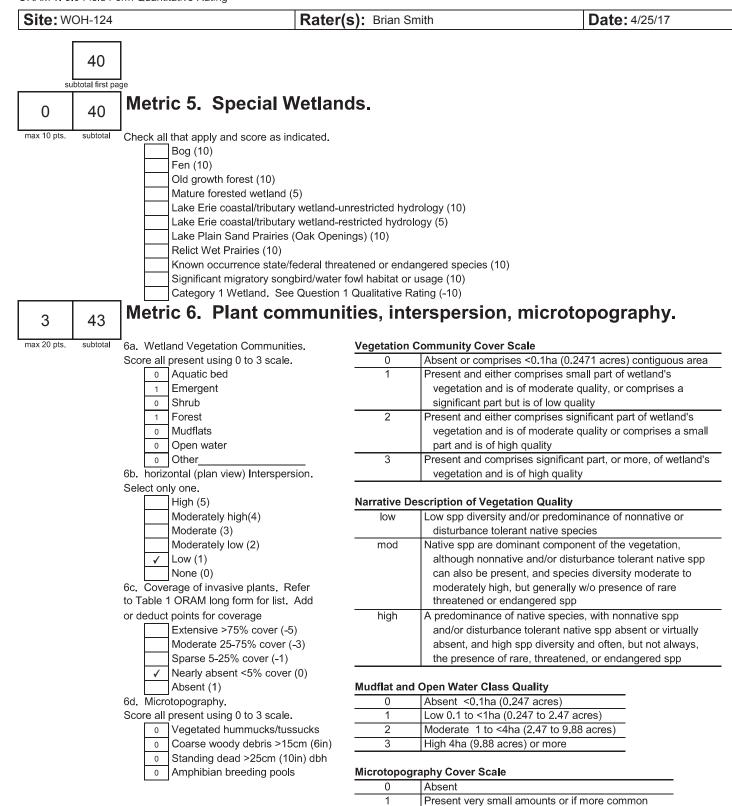
Semi- to permanently inundated/saturated (4)



Perennial surface water (lake or stream) (5) Maximum water depth. Select only one and assign score.

>0.7 (27.6in) (3)

3c.



43

End of Quantitative Rating. Complete Categorization Worksheets.

2

3

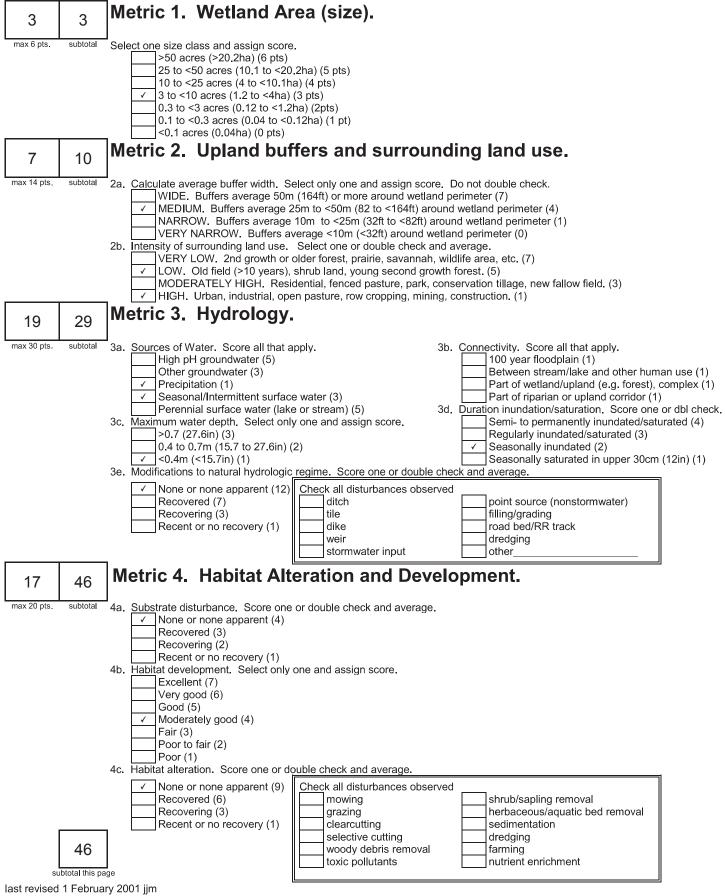
of marginal quality

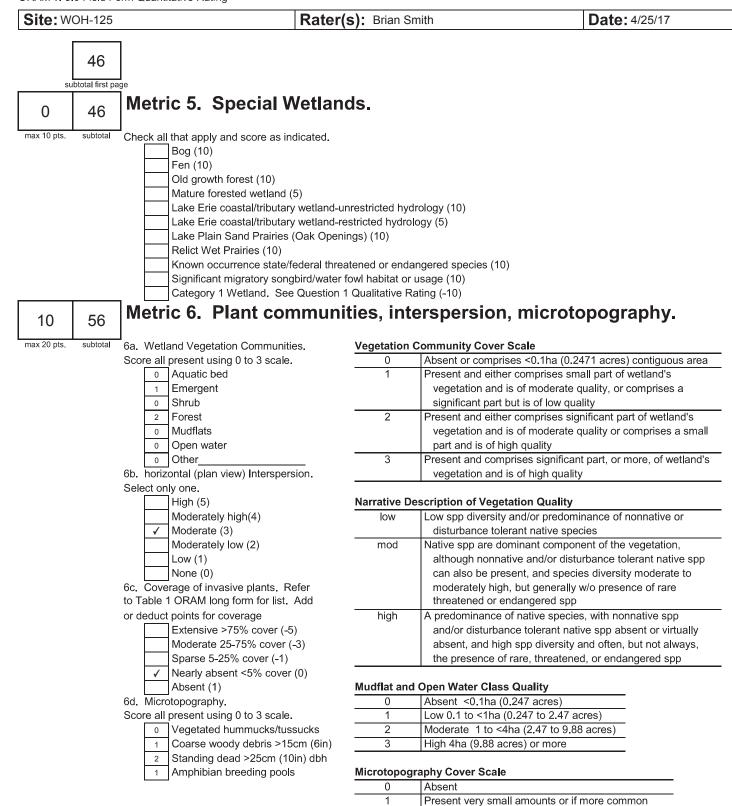
and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

Site: WOH-125 Rater(s): Brian Smith Date: 4/25/17





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of marginal quality

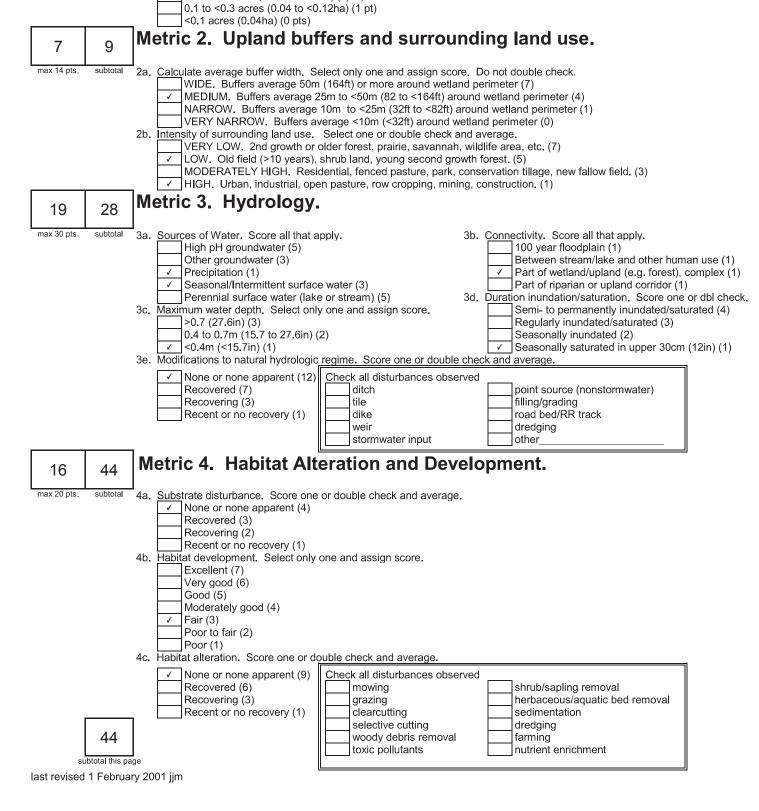
and of highest quality

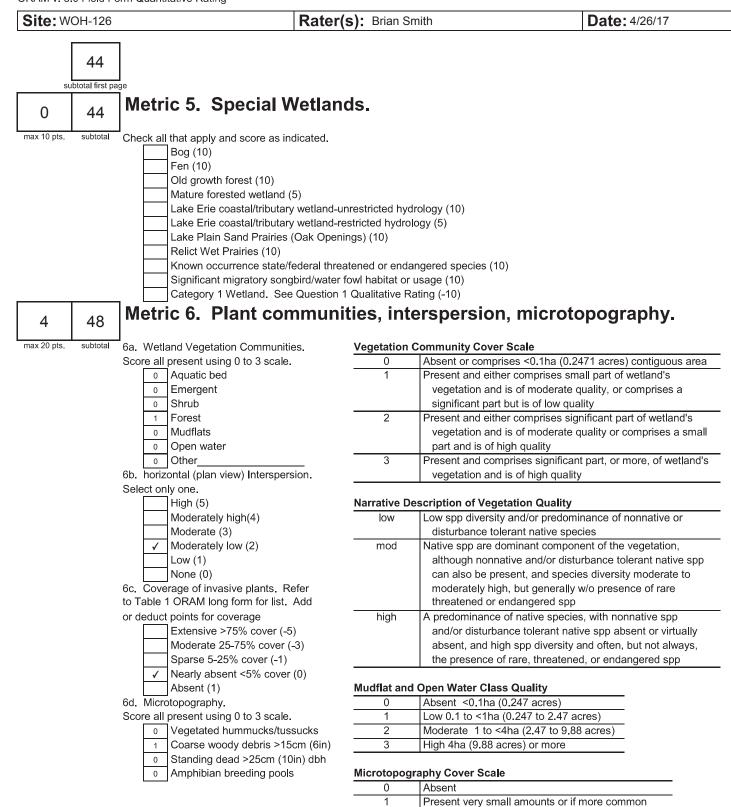
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts



0.3 to <3 acres (0.12 to <1.2ha) (2pts)





2

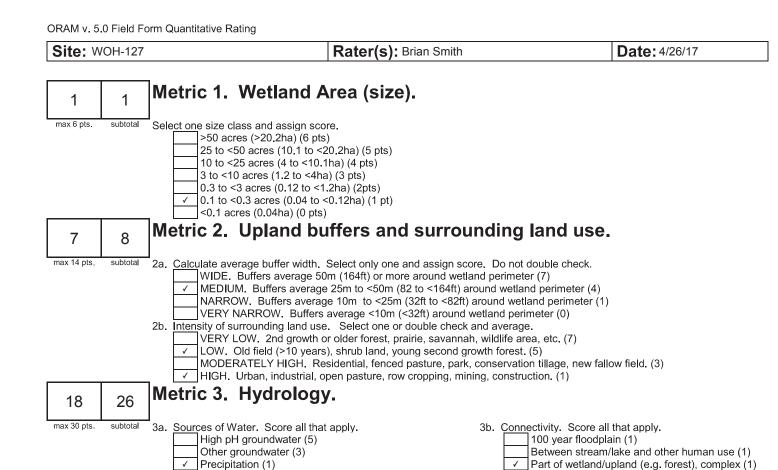
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of marginal quality

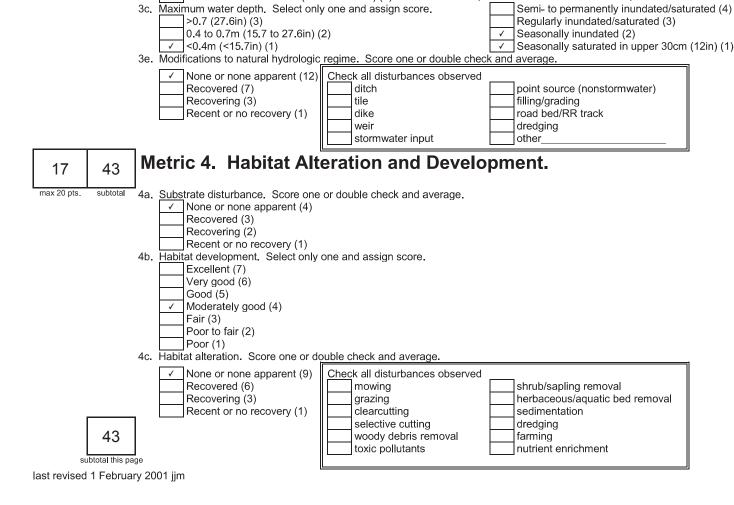
and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

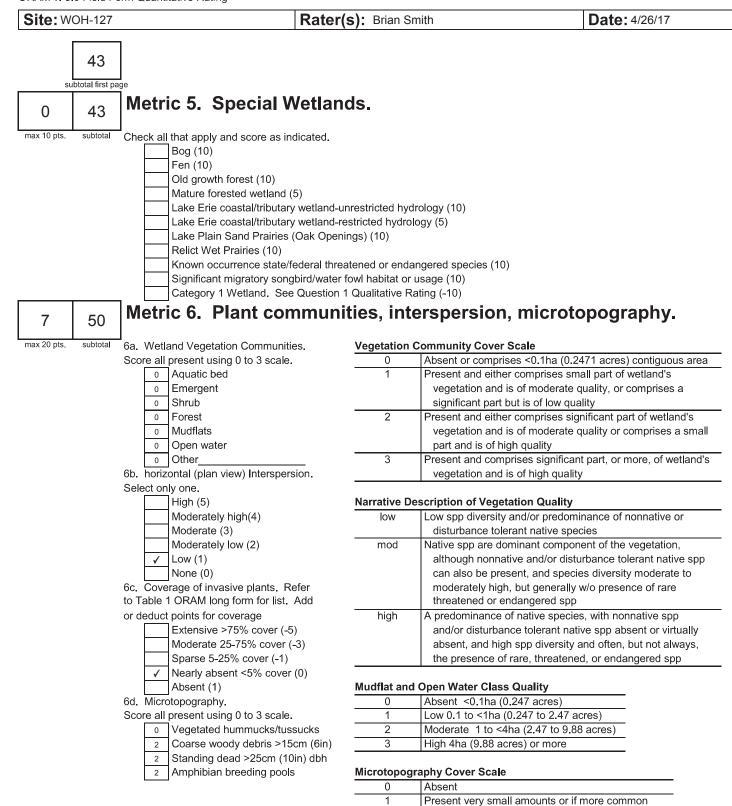


Part of riparian or upland corridor (1) 3d. Duration inundation/saturation. Score one or dbl check.



Seasonal/Intermittent surface water (3)

Perennial surface water (lake or stream) (5)



2

3

of marginal quality

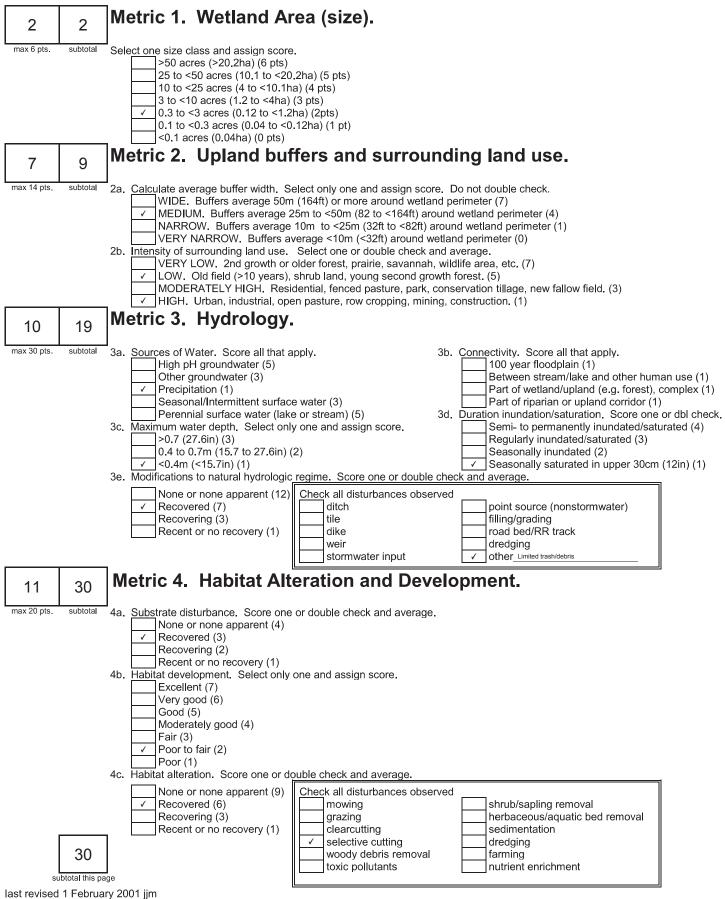
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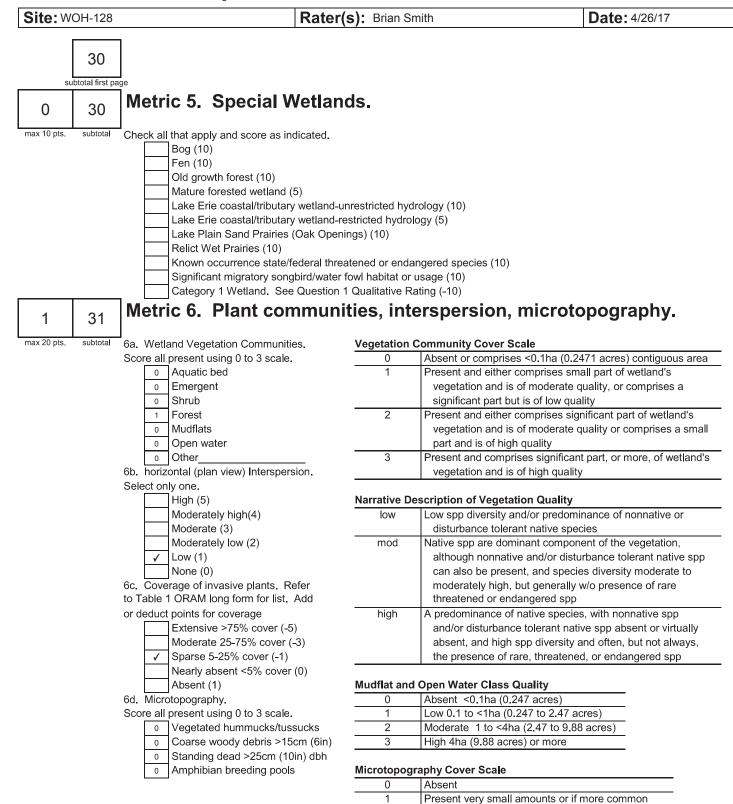
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Present in moderate or greater amounts

Site: WOH-128 Rater(s): Brian Smith

Date: 4/26/17





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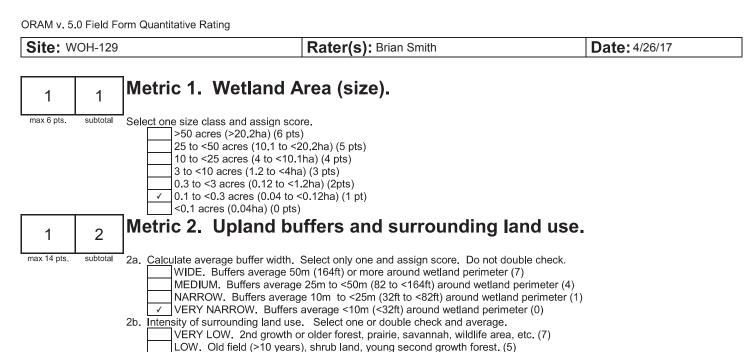
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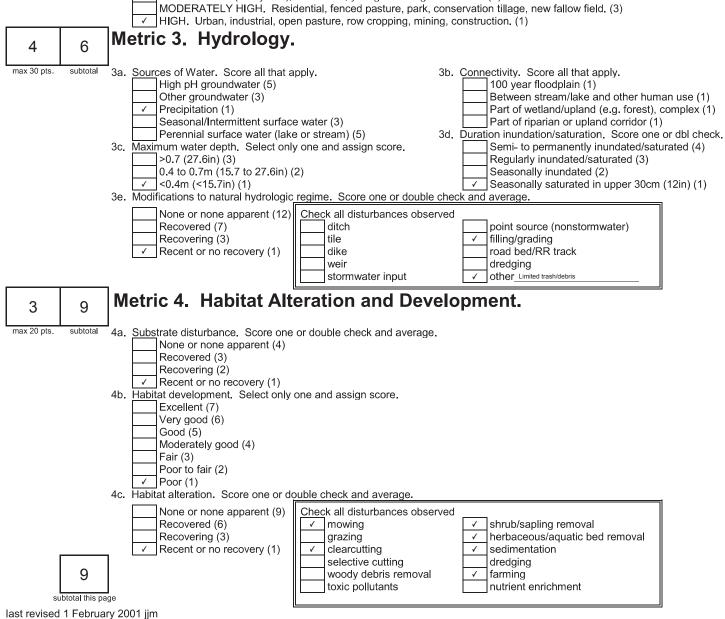
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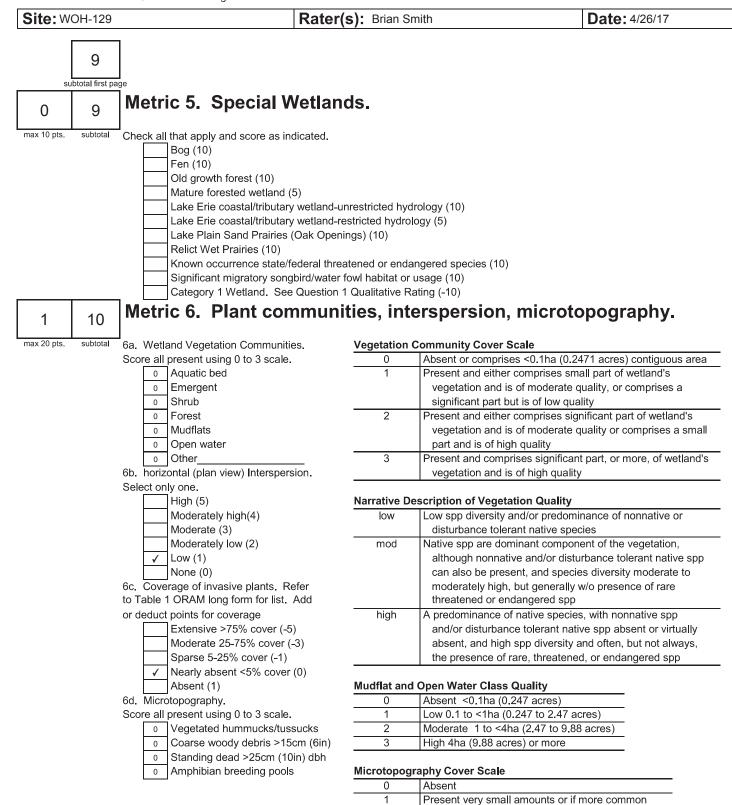
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

8







-

End of Quantitative Rating. Complete Categorization Worksheets.

2

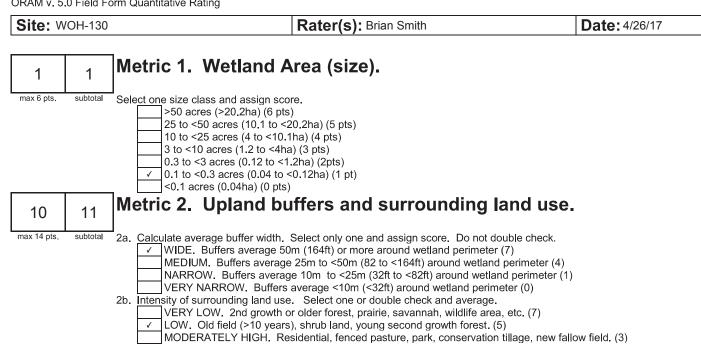
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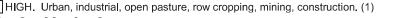
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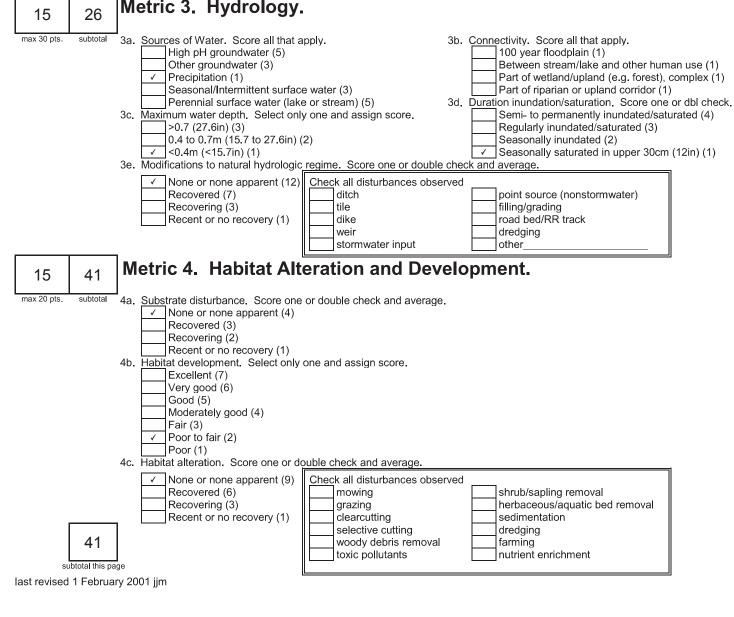
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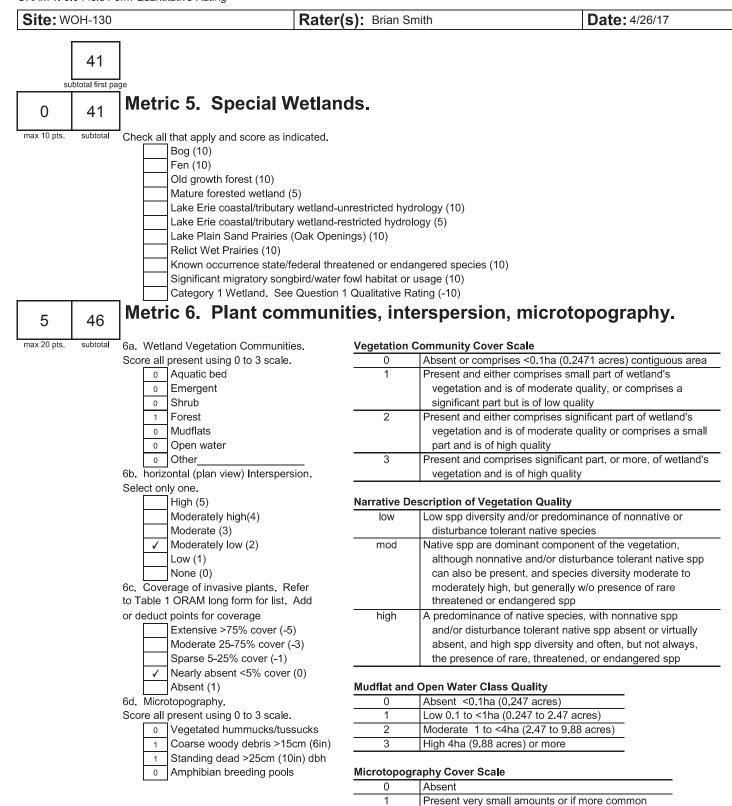
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts









2

3

of marginal quality

and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

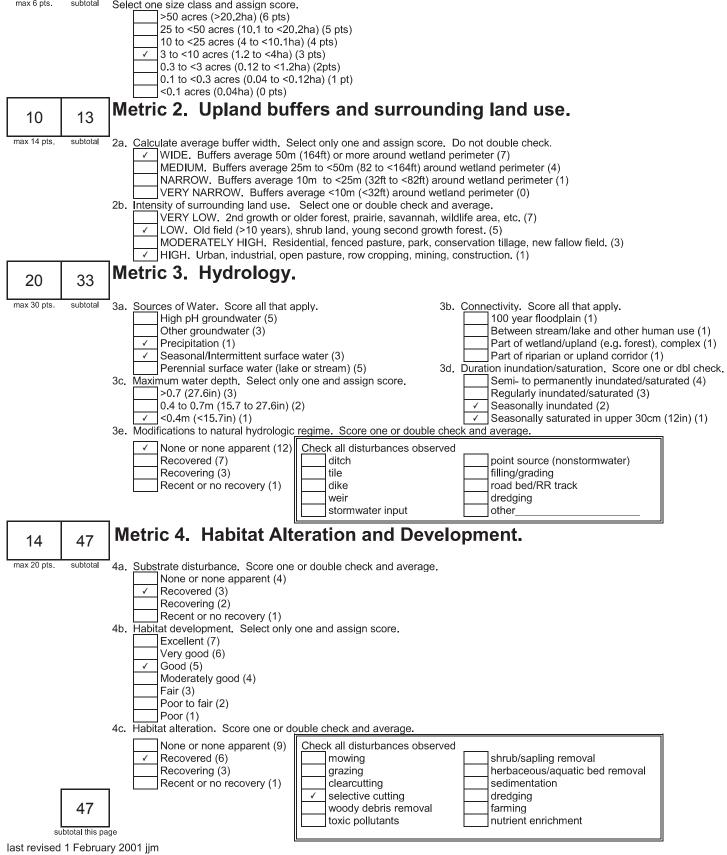
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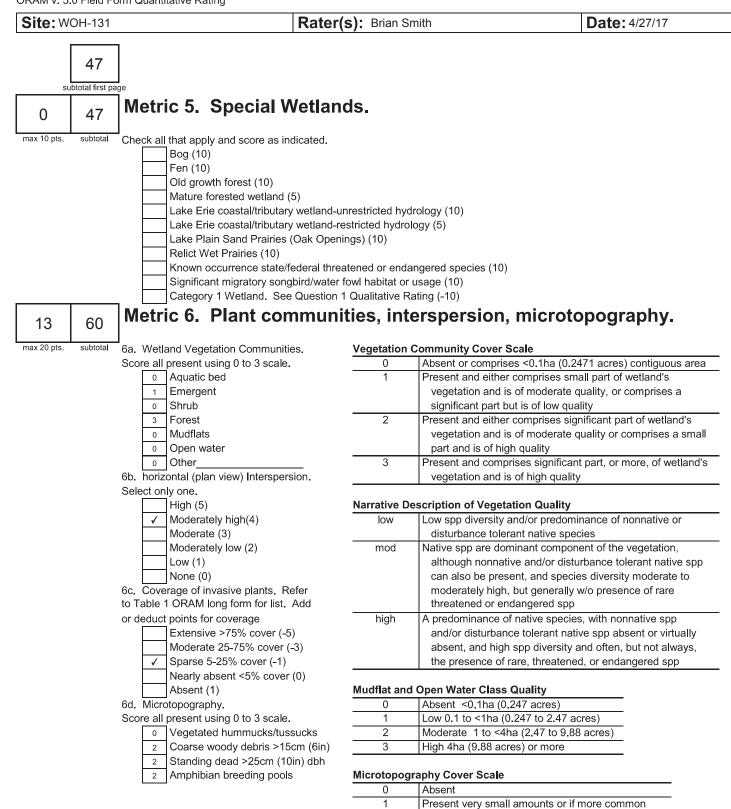
 Site: WOH-131
 Rater(s): Brian Smith
 Date: 4/27/17

 3
 3

 max 6 pts.
 subtotal

 Select one size class and assign score.





2

3

of marginal quality

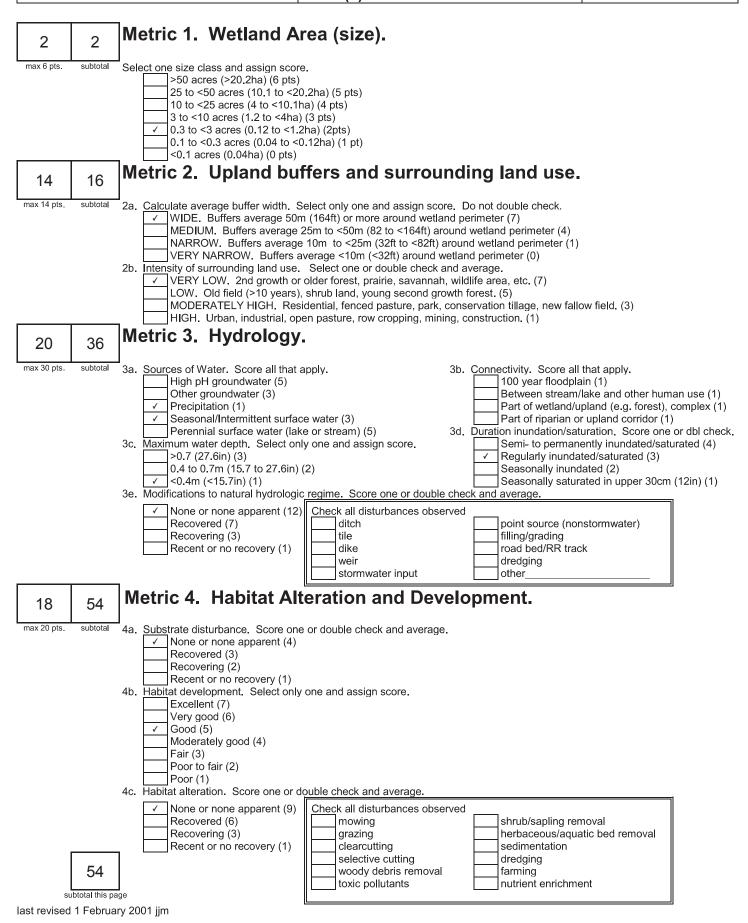
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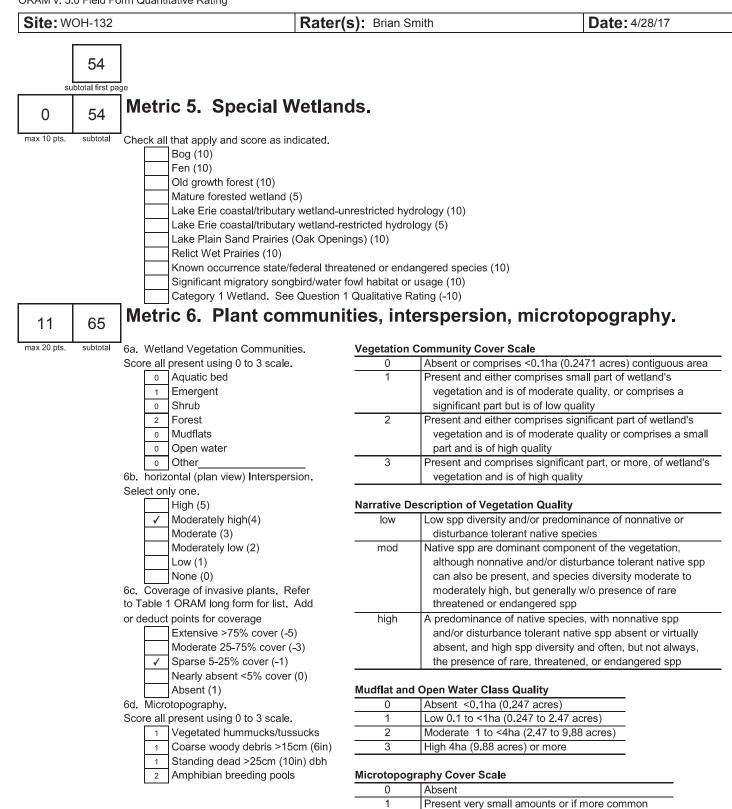
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Present in moderate or greater amounts

Site: WOH-132 Rater(s): Brian Smith

Date: 4/28/17





65

End of Quantitative Rating. Complete Categorization Worksheets.

2

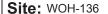
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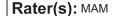
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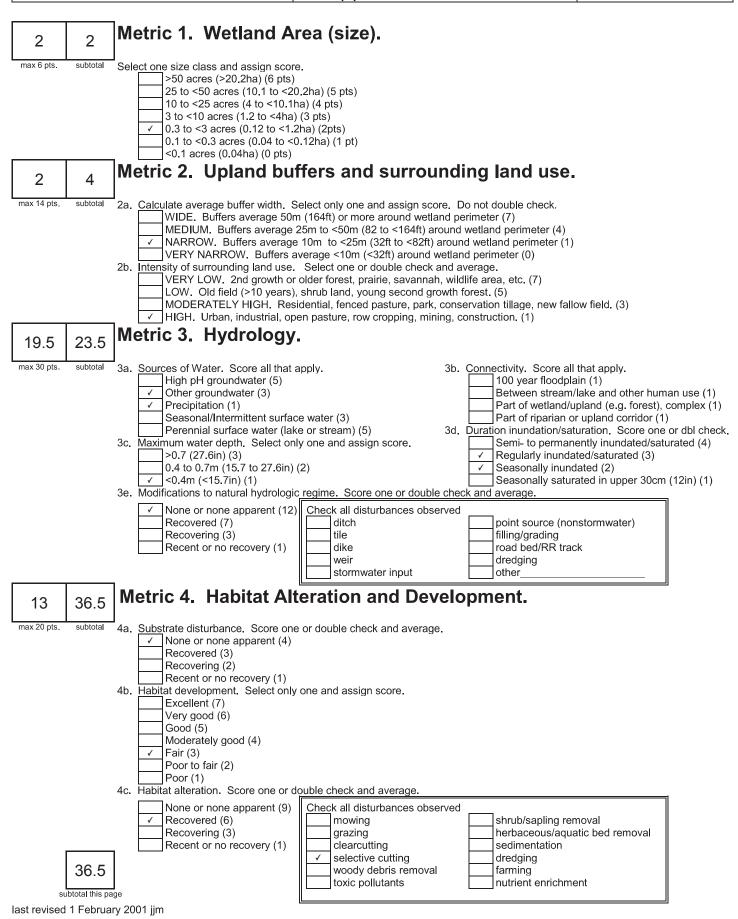
and of highest quality

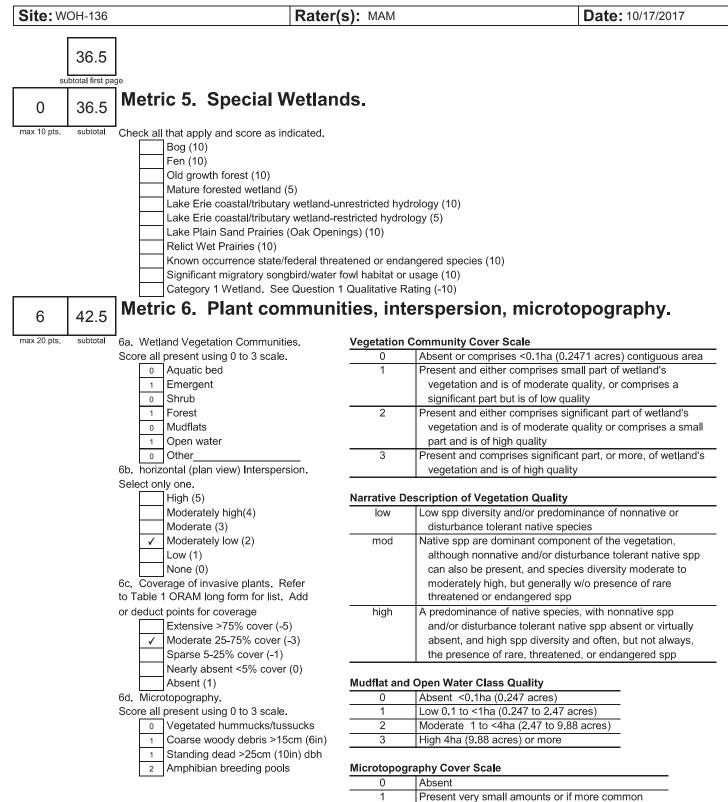
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts









42.5

End of Quantitative Rating. Complete Categorization Worksheets.

2

3

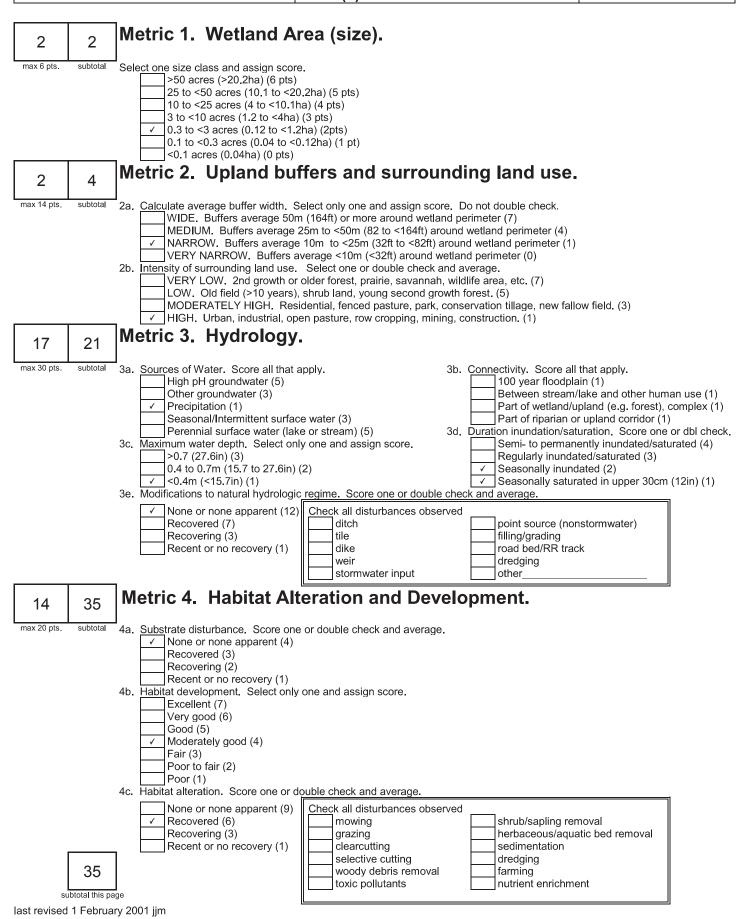
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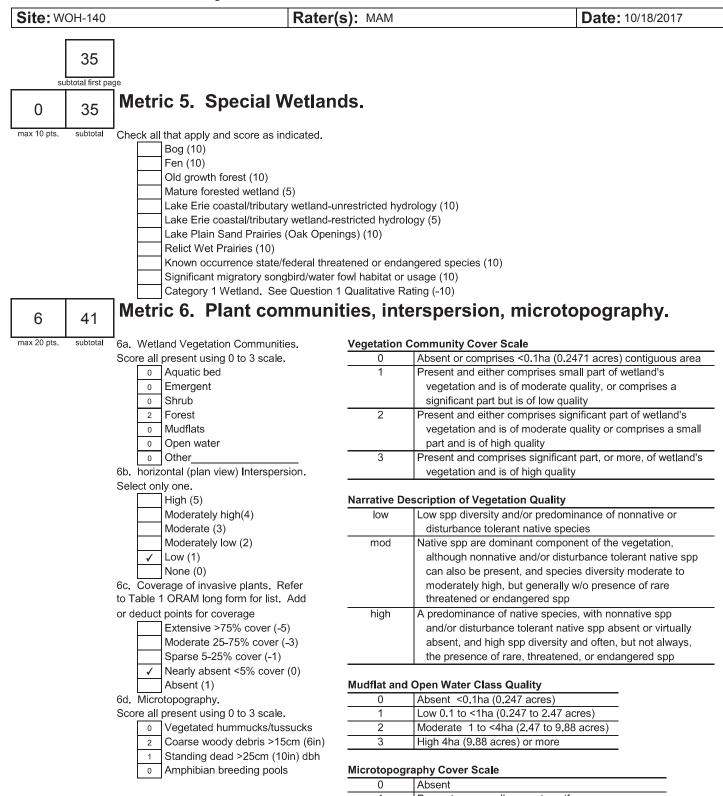
and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts





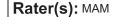


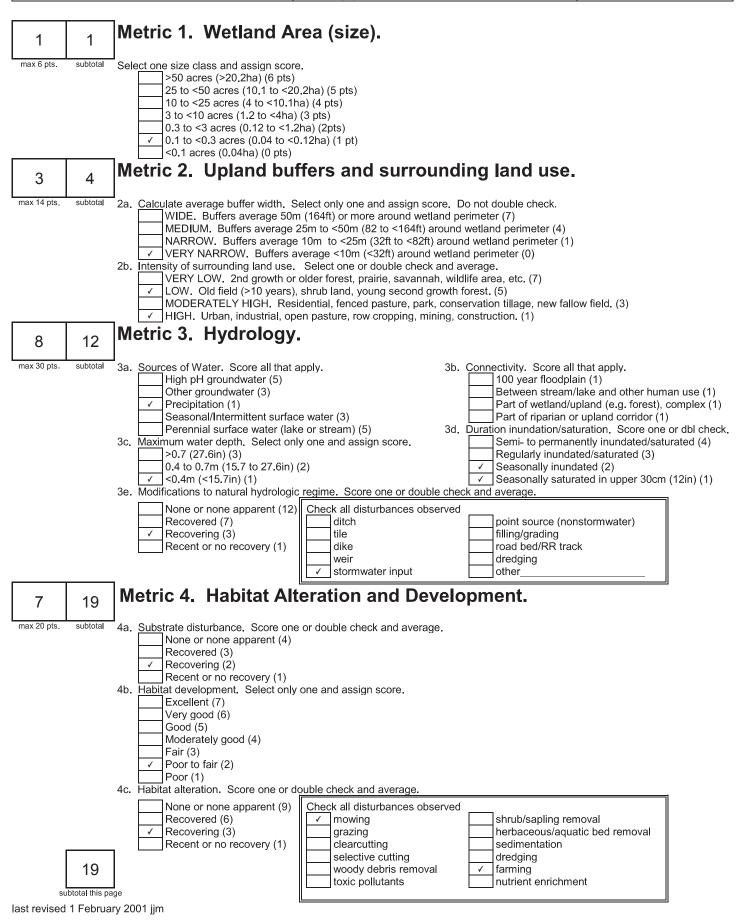
 Present very small amounts or if more common of marginal quality
 Present in moderate amounts, but not of highest quality or in small amounts of highest quality
 Present in moderate or greater amounts and of highest quality

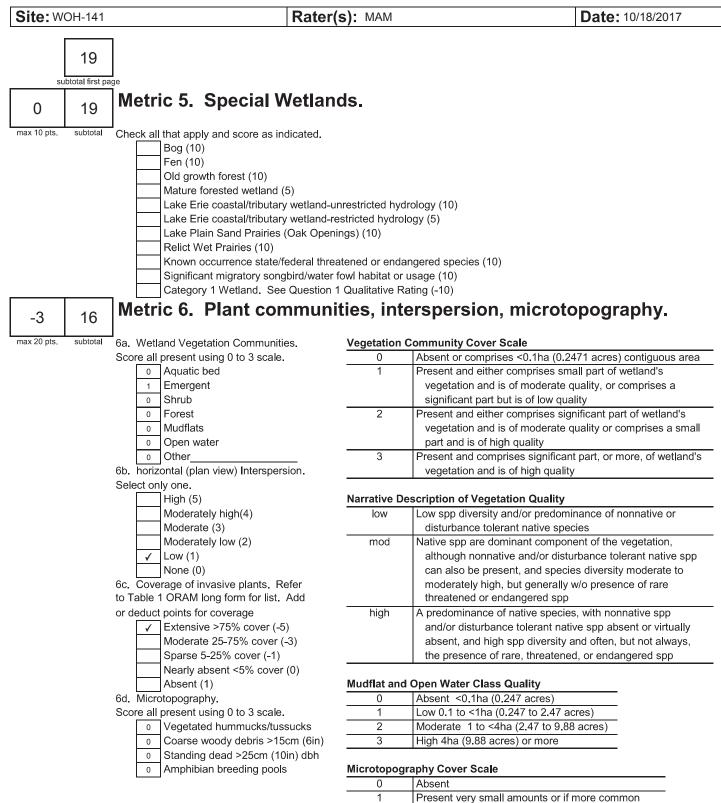
41

End of Quantitative Rating. Complete Categorization Worksheets.









16

End of Quantitative Rating. Complete Categorization Worksheets.

2

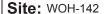
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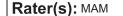
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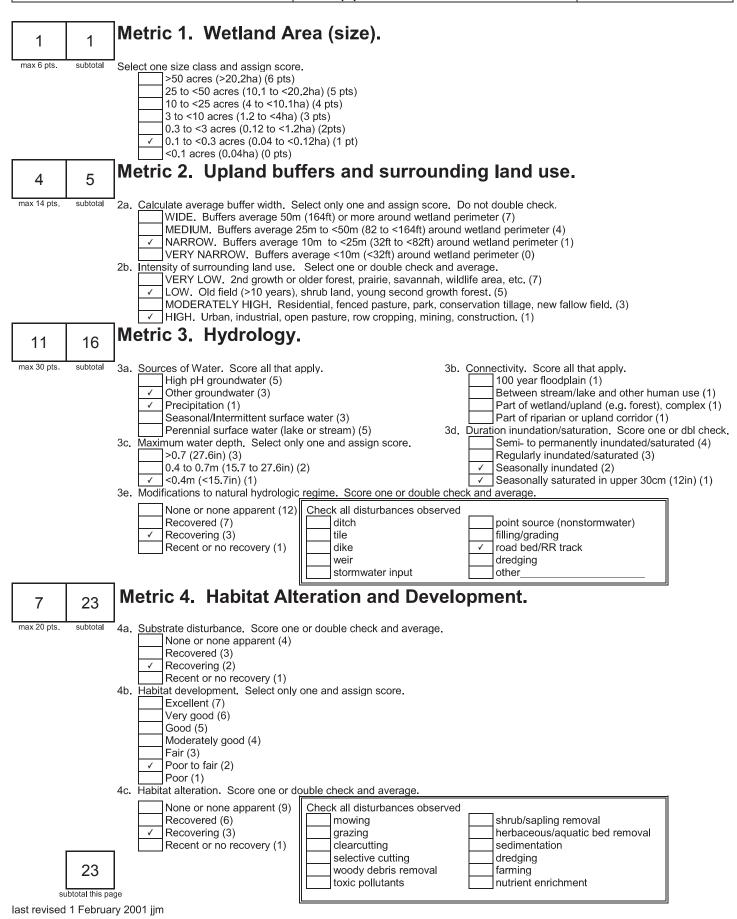
and of highest quality

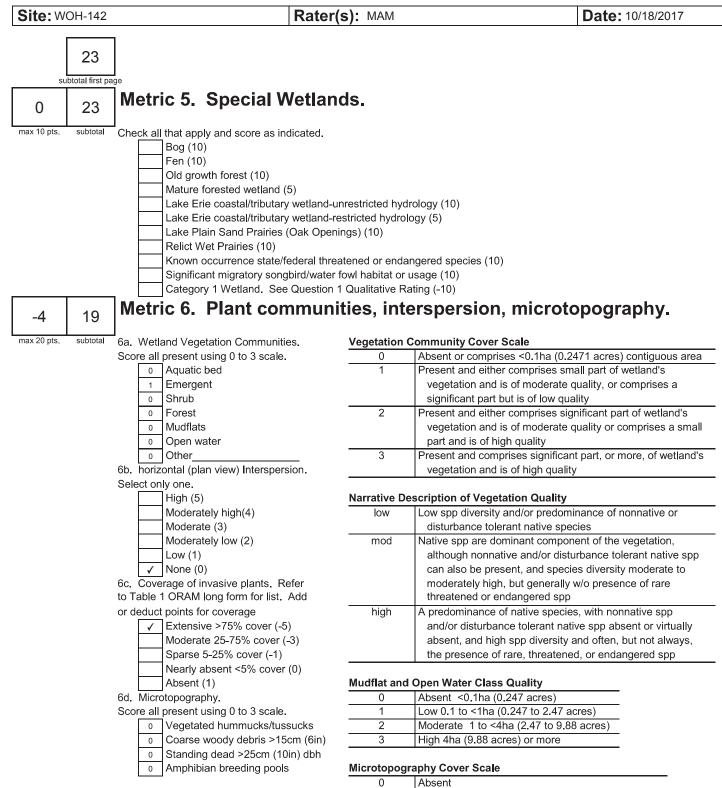
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts









7

End of Quantitative Rating. Complete Categorization Worksheets.

1

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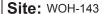
Present very small amounts or if more common

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

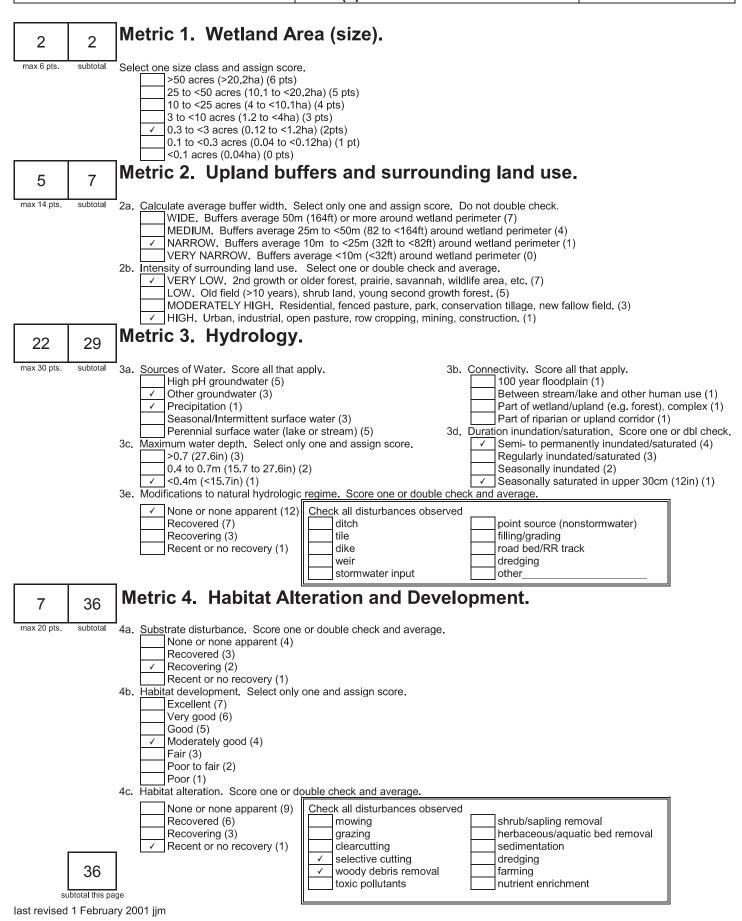
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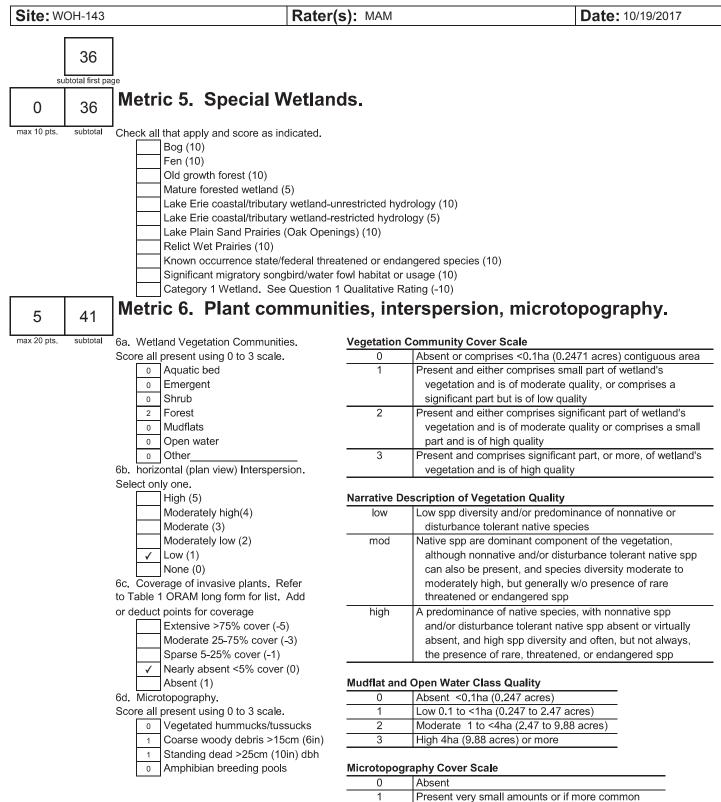
of marginal quality

and of highest quality



Rater(s): MAM





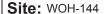
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 Present in moderate amounts, but not of highest quality or in small amounts of highest quality

 3
 Present in moderate or greater amounts and of highest quality

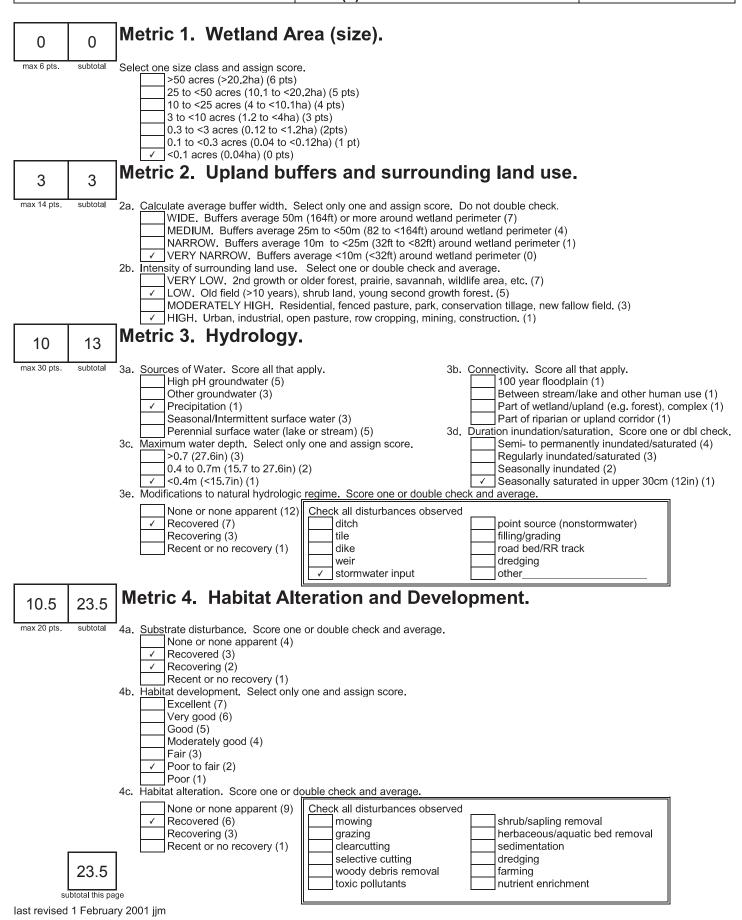
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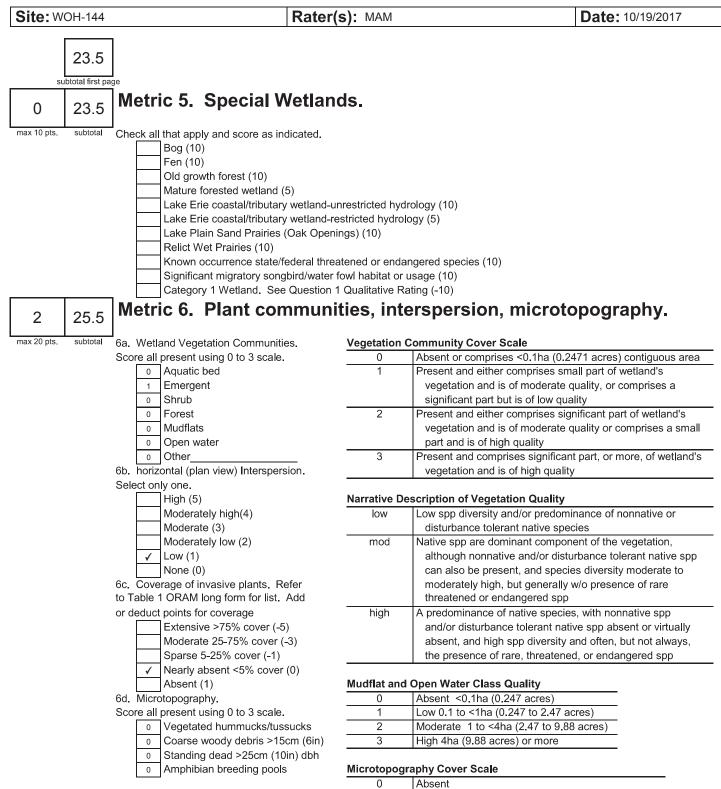
41

End of Quantitative Rating. Complete Categorization Worksheets.



Rater(s): MAM





25.5

End of Quantitative Rating. Complete Categorization Worksheets.

1

2

3

Present very small amounts or if more common

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

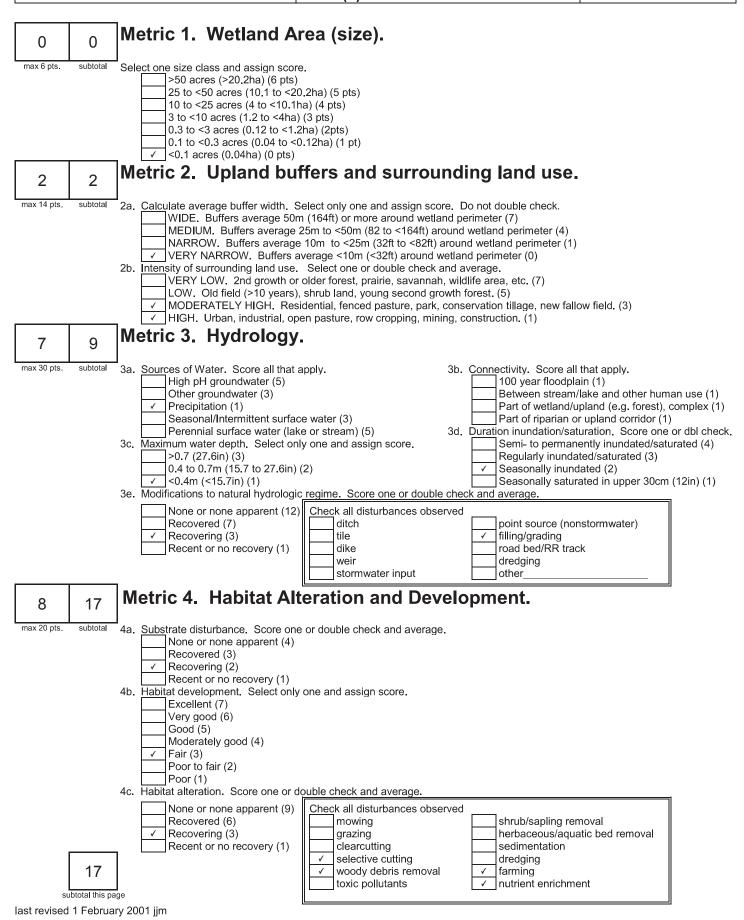
Present in moderate or greater amounts

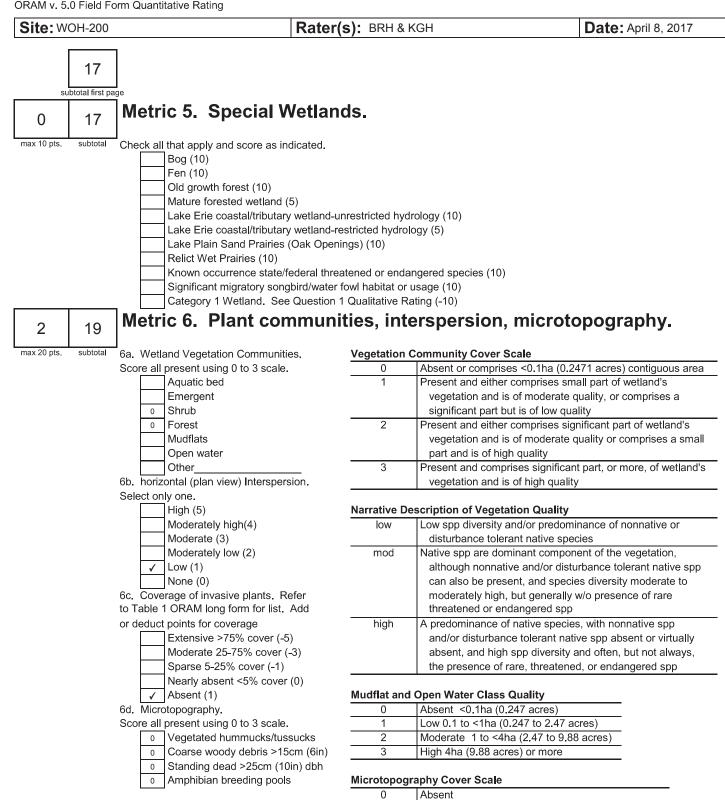
of marginal quality

and of highest quality

Site: WOH-200

Rater(s): BRH & KGH





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Present very small amounts or if more common

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

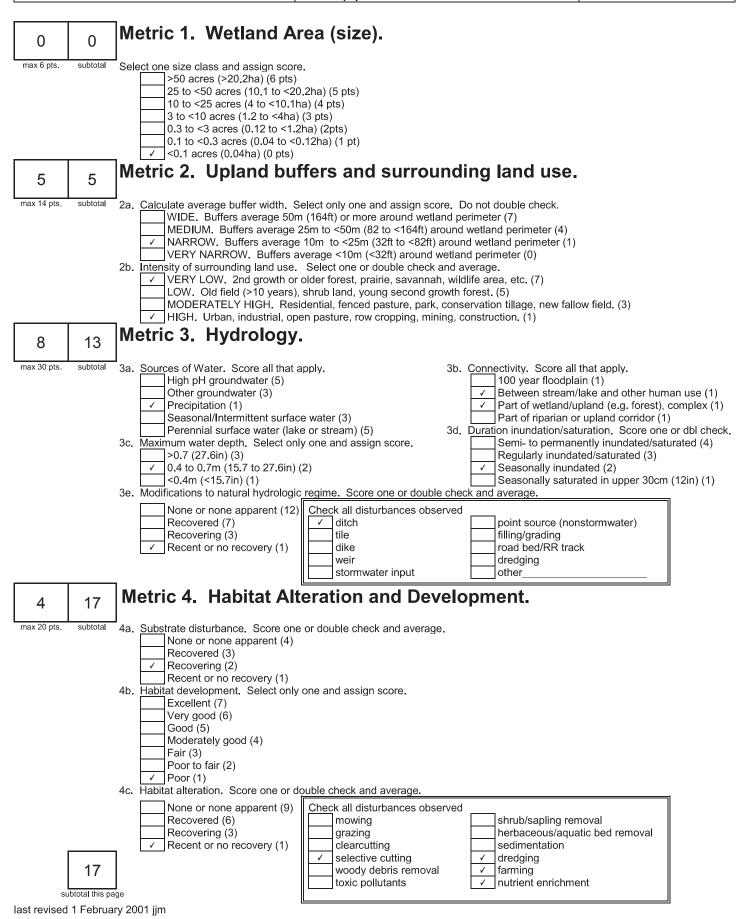
Present in moderate or greater amounts

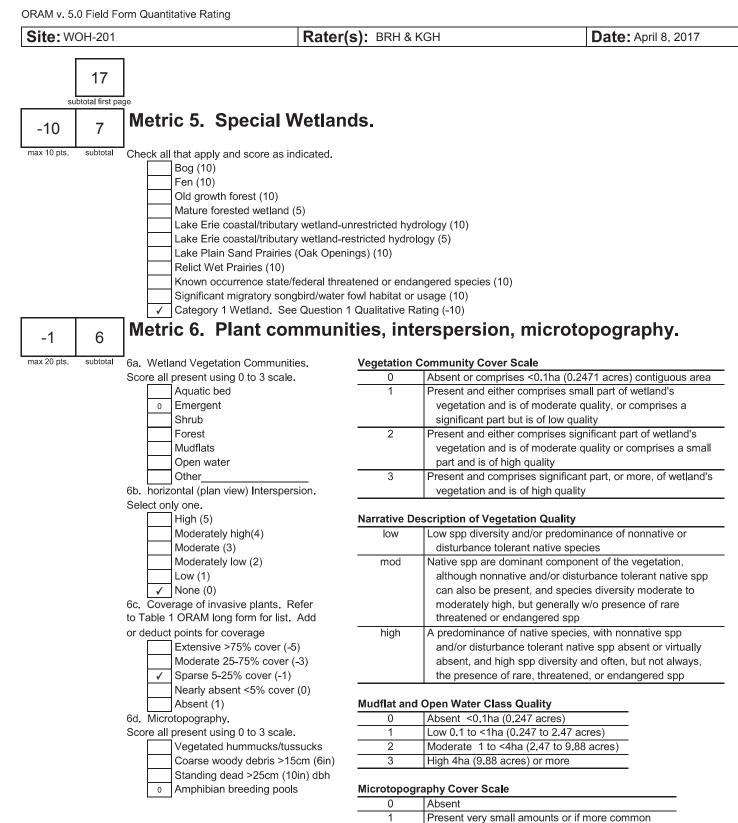
of marginal quality

and of highest quality

Site: WOH-201

Rater(s): BRH & KGH





 2
 Present in moderate amounts, but not of highest quality

 3
 Present in moderate or greater amounts and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

2/2/2018 2:25:41 PM

in

Case No(s). 17-2295-EL-BGN

Summary: Application Exhibit F Appendix H - Part 11 of 14 electronically filed by Teresa Orahood on behalf of Sally W. Bloomfield