WETLAND DETERMINATION DATA FORM - Alaska Region

Project/	/Site: Susitna-Watana Hydroelectric Project	В	orough/City:	Matanusk	a-Susitna Borough Sampling Date: 07-Aug-13			
Applica	nt/Owner: Alaska Energy Authority				Sampling Point: SW13_T178_04			
	gator(s): BAB		Landform (hill	ndform (hillside, terrace, hummocks etc.): lateral morraine				
_	elief (concave, convex, none): rolling		Slope: 1.7 % / 1.0 ° Elevation: 1126					
	ion : Interior Alaska Mountains	_	Long.: -148.310874224 Datum: WGS84					
_		Lat	63.054490209	<u> </u>				
	p Unit Name:		. V	No ○	NWI classification: Upland			
Are Vo	egetation , Soil , or Hydrology r	significantly naturally pr ving sam	disturbed?	Are "N (If nee	(If no, explain in Remarks.) Iormal Circumstances" present? Yes ● No ○ eded, explain any answers in Remarks.) s, transects, important features, etc.			
		pled Area						
	Hydric Soil Present? Yes No •		within a Wetland? Yes O No •					
	Wetland Hydrology Present? Yes ○ No ●)	•		onana .			
	arks: lateral morraine? TATION -Use scientific names of plants. List			-	Dominance Test worksheet:			
Tree	Stratum	Absolute % Cover	Dominant Species?	Status	Number of Dominant Species			
1.		0			That are OBL, FACW, or FAC:1 (A)			
2.		0			Total Number of Dominant Species Across All Strata: 4 (B)			
3.		0			Percent of dominant Species			
4.		0			That Are OBL, FACW, or FAC: 25.0% (A/B)			
5.		0			Prevalence Index worksheet:			
	Total Cover:	0			Total % Cover of: Multiply by:			
Sapl	ing/Shrub Stratum 50% of Total Cover:	0 20%	of Total Cover:	0	OBL Species 0 x 1 = 0			
1.	Arctostaphylos rubra	5		FAC	FACW Species 0 x 2 = 0			
	Empetrum nigrum	1	Ē	FAC	FAC Species 17 x 3 = 51			
	Drygs octopotals	7	✓	UPL	FACU Species 7.1 x 4 = 28.4			
	Vaccinium uliginosum	8	<u></u>	FAC	UPL Species 7 x 5 = 35			
	Vaccinium vitis-idaea	1		FAC	Column Totals: 31.1 (A) 114.4 (B)			
	Loiseleuria procumbens	6	✓	FACU				
	Salix reticulata	1		FAC	Prevalence Index = B/A = <u>3.678</u>			
8.	Salix arctica	1		FACU	Hydrophytic Vegetation Indicators:			
	Empetrum nigrum	1		FAC	Dominance Test is > 50%			
10.		0			Prevalence Index is ≤3.0			
Herl	Total Cover: 50% of Total Cover:		of Total Cover	6.2	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
1.	Anthoxanthum monticola ssp. alpinum	0.1	✓	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)			
2.		0			¹ Indicators of hydric soil and wetland hydrology must			
3.					be present, unless disturbed or problematic.			
					Plot size (radius, or length x width) 10m			
					% Cover of Wetland Bryophytes			
					(Where applicable)			
					% Bare Ground <u>45</u>			
					Total Cover of Bryophytes 20			
10.	Tetal Covers		Hydrophytic					
	Total Cover: 50% of Total Cover: (of Total Cover	. 0.02	Vegetation 0.02				
_				0.02	1			
Rema	arks: bryophytes all lichen							

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SOIL Sampling Point: SW13_T178_04

Color (moist) Solor (moist	Profile Description: (Describe	to the depth ne	eded to docum		onfirm the abs		cators)		
9-3 ±107K 3/3 ±100 Sandy Leam org criter. Elst of from indeed stance 3-10 ±10-18 ±107K 4/4 ±100 Sandy Loam org criter. Elst of from indeed stance 3-10-18 ±	, i ,	noist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
10-18 2.57 4/3 100 Sandy Loam sem rounded growel and cobbes **Type: C=Concentration. D=Depletion. RM=Reduced Matrix ** Location: PL=Pere Lining, RC=Root Channel. M=Matrix **Hydric Soil Indicators: Histosal or Histel (A1)	0-3 10YR	3/3	100					Sandy Loam	org cntnt. lots of semi rnded stones to grvl
10-18 2.5	3-10 2.5Y	4/4	100					Sandy Loam	semi rounded gravel and cobbles
**Type: C=Concentration. D=Depletion. RM=Reduced Matrix **Location: PL=Pere Lining. RC=Root Channel. M=Matrix Mydric Soil Indicators:	10-18 2 5Y	4/3	100					Sandy Loam	
Hydric Soil Indicators: Histosol or Histel (A1)		- 1/3	100						Serii rodilded graver drid cobbles
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Histosol or Histel (A1))=Depletion.						annel. M=Matrix	
Hystic Epipedon (A2)						4	OIIS:	1	
Basic Epipeliol (1/2)						-			ue 5Y or Redder
Thick Dark Surface (A12) Alaska Redox (A14) 4 Give details of color change in Remarks					`	,		, , ,	(rc)
Alaska Gleyed (A13) Alaska Gleyed (A14) Alaska Gleyed Pores (A15) Alaska Gley					With 2.5Y F	lue	_	J Other (Explain in Remar	(3)
Alaska Gelveth (A15)		.2)		3 One indicator of	f hydronhyt	ic vegetatio	n one nrin	mary indicator of wetland h	avdrology
Alaska Gleyed Pores (A15) Restrictive Layer (if present): Type: Depth (Inches): Remarks: no hydric soil indicators observed HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one is sufficient) Surface Water (A1)									rydrology,
Restrictive Layer (if present): Type: Depth (inches): Remarks: no hydric soil indicators observed HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one is sufficient) Surface Water (A1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Marl Deposits (B15) Sediment Deposits (B2) Diff Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Surface Water Present? Ves No Depth (inches): Wetland Hydrology Present? Ves No Pepth (inches):				4 Give details of	color change	a in Demark	/C		
Type: Depth (inches): Remarks: no hydric soil indicators observed HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (Itwo or more are require) Surface Water (A1)				Oive details of	color change	e iii Keiliair			
Remarks: no hydric soil indicators observed HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one is sufficient) Saturation (A3) Saturation ():						Under Call Bos and	
HYDROLOGY Wetland Hydrology Indicators:								Hydric Soil Present	. Yes O No O
HYDROLOGY Wetland Hydrology Indicators:	Deput (inches).								
Wetland Hydrology Indicators: Secondary Indicators (two or more are required primary Indicators (any one is sufficient) Primary Indicators (any one is sufficient) Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10) Surface Water Table (A2) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres along Living Roots (B15) Saturation (A3) Marl Deposits (B15) Presence of Reduced Iron (C4) Water Marks (B1) Hydrogen Sulfide Odor (C1) Salt Deposits (C5) Sediment Deposits (B2) Dry-Season Water Table (C2) Stunted or Stressed Plants (D1) Drift Deposits (B3) Other (Explain in Remarks) Geomorphic Position (D2) Irron Deposits (B5) Microtopographic Relief (D4) Surface Soil Cracks (B6) FAC-neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Petalons in Specific (D4) Saturation Present? (includes capillary fringe) Yes No Depth (inches): Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:									
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Saturation (A3)						_			
Water Marks (B1))				cave Surfa	ce (B8)		
Sediment Deposits (B2)	. ,			Marl Deposi	ts (B15)				• •
□ Drift Deposits (B3) □ Other (Explain in Remarks) □ Geomorphic Position (D2) □ Algal Mat or Crust (B4) □ Shallow Aquitard (D3) □ Microtopographic Relief (D4) □ FAC-neutral Test (D5) Field Observations: Surface Water Present? Yes ○ No ● Depth (inches): Water Table Present? Yes ○ No ● Depth (inches): Saturation Present? Yes ○ No ● Depth (inches): Saturation Present? Yes ○ No ● Depth (inches): Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available: Remarks:									
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Saturation Present? (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available: Remarks:	Surface Water Present?			Depth (inch	ies):				
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Remarks:		Yes C	No 💿	Depth (inch	es):				
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	Remarks:								
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