WETLAND DETERMINATION DATA FORM - Alaska Region

Project	Site: Susitna-Watana Hydroelectric Project	Во	rough/City:	Matanusk	a-Susitna Borough Sampling Date: 04-Aug-13	
Applicant/Owner: Alaska Energy Authority Sampling Point: SW13_T150_06						
Investigator(s): SLI, EAC Landform (hillside, terrace, hummocks etc.): Shoreline						
Local relief (concave, convex, none): hummocky Slope: 0.0 % / 0.0 ° Elevation: 774						
Soil Map Unit Name: NWI classification: PEM1F						
Are Climatic/hydrologic conditions on the site typical for this time of year? Are Vegetation , Soil , or Hydrology significantly disturbed? Are Vegetation , Soil , or Hydrology naturally problematic? Are Vegetation , Soil , or Hydrology naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes No No						
ls th				the Sam	he Sampled Area	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			within a Wetland? Yes ● No ○			
	Wetland Hydrology Present? Yes No	<i></i>				
Remarks: one rusty blackbird observed on snag above water. likely second rusty blackbird flushed. adult non-breeding coloration. characterizing hgwfs swale at pond margin. emergent fringe of pond, likely connects to community characterized by sw13-t150-05 (check aerial imagery). VEGETATION -Use scientific names of plants. List all species in the plot.						
VLGL	TATION - OSE Scientific flames of plants. L	ist all spec	les ili tile j	JIUL.	B	
		Absolute		Indicator	Dominance Test worksheet: Number of Dominant Species	
	: Stratum	% Cover	Species?	Status	That are OBL, FACW, or FAC: 5 (A)	
1.					Total Number of Dominant	
2.					Species Across All Strata:6 (B)	
3.					Percent of dominant Species	
4.					That Are OBL, FACW, or FAC: 83.3% (A/B)	
5.	Total Cover	<u> </u>			Prevalence Index worksheet: Total % Cover of: Multiply by:	
Sapling/Shrub Stratum 50% of Total Cover: 0 20% of Total Cover:			0	OBL Species 20.2 x 1 = 20.2		
1	Salix fuscescens	1	✓	FACW	FACW Species 12.2 x 2 = 24.40	
	Diego glaves		V	FACU	FAC Species 20.3 x 3 = 60.90	
	Manadali and Allinda and and	0.1		FAC	FACU Species 1 x 4 = 4	
			П	FAC	UPL Species 0 x 5 = 0	
5.				1710		
6.			\Box		Column Totals: <u>53.7</u> (A) <u>109.5</u> (B)	
7.		0			Prevalence Index = B/A = 2.039	
γ.		0	П		Hydrophytic Vegetation Indicators:	
9.		0			✓ Dominance Test is > 50%	
10.		0			✓ Prevalence Index is ≤ 3.0	
Total Cover: 2.2 [Herb Stratum					Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
1.	Carex canescens (IAM)	10	✓	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)	
2.	Calamagrostis canadensis	10	✓	FAC	¹ Indicators of hydric soil and wetland hydrology must	
3.	Carex aquatilis	20	<u> </u>	OBL	be present, unless disturbed or problematic.	
4.	Petasites frigidus	1		FACW		
5.	Ranunculus gmelinii	0.1		FACW	Plot size (radius, or length x width) 10m	
6.	Arctagrostis latifolia	10	<u> </u>	FACW	% Cover of Wetland Bryophytes (Where applicable)	
7.	Senecio triangularis	0.1		FACW		
8.	Ranunculus hyperboreus	0.1		OBL		
9.	Equisetum arvense	0.1		FAC	Total Cover of Bryophytes 10	
	Lemna trisulca	0.1		OBL	Underwhite	
10.	Total Cover]		Hydrophytic Vegetation	
	50% of Total Cover: 2		of Total Cover:	10.3	Present? Yes No	
Demarket Anna was anation about an analysis and a second						
Remarks: trace rumex arcticus. abundant snags/down trees. down trees supporting clumps of drier vegetation (grasses, petfri, sentri, shrubs). shallow open water w ranunculus, carex.						

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SOIL Sampling Point: SW13_T150_06 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators) **Redox Features** Depth <u>Loc</u> 2 (inches) Color (moist) Color (moist) Type ¹ ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix ² Location: PL=Pore Lining, RC=Root Channel, M=Matrix Indicators for Problematic Hydric Soils:3 **Hydric Soil Indicators:** Histosol or Histel (A1) Alaska Color Change (TA4) ☐ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer Alaska Alpine swales (TA5) Histic Epipedon (A2) Alaska Redox With 2.5Y Hue U Other (Explain in Remarks) ✓ Hydrogen Sulfide (A4) Thick Dark Surface (A12) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, Alaska Gleved (A13) and an appropriate landscape position must be present Alaska Redox (A14) ⁴ Give details of color change in Remarks Alaska Gleyed Pores (A15) Restrictive Layer (if present): Yes ● No ○ Type: **Hydric Soil Present?** Depth (inches): Remarks: h2s when wading in community **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (two or more are required) Primary Indicators (any one is sufficient) Water Stained Leaves (B9) ✓ Surface Water (A1) Drainage Patterns (B10) ☐ Inundation Visible on Aerial Imagery (B7) High Water Table (A2) Oxidized Rhizospheres along Living Roots (C3) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Presence of Reduced Iron (C4) Marl Deposits (B15) Water Marks (B1) Salt Deposits (C5) ✓ Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Dry-Season Water Table (C2) Stunted or Stressed Plants (D1) Drift Deposits (B3) Other (Explain in Remarks) Geomorphic Position (D2) Algal Mat or Crust (B4) Shallow Aquitard (D3) ✓ Iron Deposits (B5) Microtopographic Relief (D4) Surface Soil Cracks (B6) ✓ FAC-neutral Test (D5) Field Observations: Yes ● No ○ Surface Water Present? Depth (inches): 18 Yes O No • Yes ● No ○ Water Table Present? Wetland Hydrology Present? Depth (inches): Saturation Present? Yes ○ No ● Depth (inches): (includes capillary fringe)

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Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:

iron floc and biogenic sheen. h2s when walking through community.

Remarks:

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