WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project	Во	orough/City:	Matanusk	a-Susitna Borough Sampling Date: 20-Aug-15
Applicant/Owner: Alaska Energy Authority				Sampling Point: SW15_T306_04
Investigator(s): WAD, SCB	L	_andform (hill	side, terrac	e, hummocks etc.): drainage
Local relief (concave, convex, none): hummocky		Slope: 14.0	% / 8.0	
Subregion : Interior Alaska Mountains	Lat.:			Long.: Datum: WGS84
Soil Map Unit Name:				NWI classification: PSS1E
Are climatic/hydrologic conditions on the site typical for this t	time of year?	. Voc	● No ○	(If no, explain in Remarks.)
Are Vegetation \square , Soil \square , or Hydrology \square	significantly			lormal Circumstances" present? Yes No
	naturally pro			eded, explain any answers in Remarks.)
			·	
SUMMARY OF FINDINGS - Attach site map sho	wing sam	pling point	locations	s, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	\supset			
Hydric Soil Present? Yes No	\supset			pled Area
Wetland Hydrology Present? Yes No	\supset	wi	thin a W	etland? Yes ● No ○
Remarks: closed low shrub, mostly myrica and dasfru with	scattered be	etnan and sal	pul. scatter	ed picgla seedlings to midsize, including a few dead
VEGETATION -Use scientific names of plants. L	ist all spe	cies in the	plot.	
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Picea glauca	5	✓	FACU	That are OBL, FACW, or FAC: 3 (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: 75.0% (A/B)
5	0			Prevalence Index worksheet:
Total Cove				Total % Cover of: Multiply by:
Sapling/Shrub Stratum 50% of Total Cover:	2.5 20%	of Total Cover:	1	OBL Species <u>47</u> x 1 = <u>47</u>
Dasiphora fruticosa	45	✓	FAC	FACW Species <u>6.1</u> x 2 = <u>12.2</u>
2. Myrica gale	35	✓	OBL	FAC Species <u>63.2</u> x 3 = <u>189.6</u>
3. Betula nana	10		FAC	FACU Species <u>5.1</u> x 4 = <u>20.4</u>
4. Salix pulchra	5		FACW	UPL Species0 x 5 =0
5. Vaccinium uliginosum	2		FAC	Column Totals: <u>121.4</u> (A) <u>269.2</u> (B)
6. Rhododendron tomentosum	1		FACW	
7	0			Prevalence Index = B/A = 2.217
8	0			Hydrophytic Vegetation Indicators:
9	0			✓ Dominance Test is > 50%
10				Prevalence Index is ≤3.0
Total Cover Herh Stratum 50% of Total Cover:		of Total Cover	. 10.0	Morphological Adaptations (Provide supporting data in
- TOTO OCIUCAIII		✓		Remarks or on a separate sheet)
Trichophorum caespitosum			OBL	Problematic Hydrophytic Vegetation (Explain)
Festuca altaica Equisetum arvense	2		FAC FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Equisetum arvense Eriophorum angustifolium			OBL	
5 Caray higologyii			FAC	Plot size (radius, or length x width) 10m
Carex bigelowii Swertia perennis	0.1		FACW	% Cover of Wetland Bryophytes (Where applicable)
7. Rumex arcticus			FAC	% Bare Ground15
8. Carex scirpoidea	0.1		FACU	Total Cover of Bryophytes 25
9 Bistorta plumosa	0.1		FACU	23
10.	0			Hydrophytic
Total Cove	r: <u>18.4</u>			Vegetation
50% of Total Cover:	9.2 20%	of Total Cover:	3.68	Present? Yes No
Remarks:				

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SOIL Sampling Point: SW15_T306_04

Thick Dark Surface (A12) Alaska Gleyed (A13) Alaska Redox (A14) Alaska Gleyed Pores (A15) Restrictive Layer (if present): Type: Depth (inches): Remarks: below 12 inches large subrounded cobbles HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one is sufficient) ✓ Surface Water (A1) Marl Deposits (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Water Present? Yes No Depth (inches): 2	Alaska Gleyed Without Hue 5Y or Redder Underlying Layer Other (Explain in Remarks) ry indicator of wetland hydrology,
3-7 100 7-12 100 100 7-12 100 100	Muck Muck Muck Mel. M=Matrix Alaska Gleyed Without Hue 5Y or Redder Underlying Layer Other (Explain in Remarks) ry indicator of wetland hydrology,
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Remarks: Relow 12 inches large subrounded cobbles Image: Primary Indicators (any one is sufficient) Image: Primary I	Tydric 30ii Fresenc: Tes C No C
### A Proposition (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 4 Wetlan	
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High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 4 Wetlan	Water Stained Leaves (B9)
✓ Saturation (A3) ☐ Water Marks (B1) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Dry-Season Water Table (C2) ☐ Drift Deposits (B3) ☐ Other (Explain in Remarks) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 4 Wetlan	Drainage Patterns (B10)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Ves No Depth (inches): 4 Wetlan Saturation Present?	Oxidized Rhizospheres along Living Roots (C3)
□ Sediment Deposits (B2) □ Dry-Season Water Table (C2) □ Drift Deposits (B3) □ Other (Explain in Remarks) □ Algal Mat or Crust (B4) □ Iron Deposits (B5) □ Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes ○ No ○ Depth (inches): 2 Water Table Present? Yes ○ No ○ Depth (inches): 4 Saturation Present? Yes ○ No ○ Depth (inches): 4	Presence of Reduced Iron (C4)
☐ Drift Deposits (B3) ☐ Other (Explain in Remarks) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes ● No ○ Depth (inches): 2 Water Table Present? Yes ● No ○ Depth (inches): 4 Saturation Present? Yes ● No ○ Depth (inches): 4	Salt Deposits (C5)
☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes ● No ○ Depth (inches): 2 Water Table Present? Yes ● No ○ Depth (inches): 4 Saturation Present? Yes ● No ○ Depth (inches): 4	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5) ☐ Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes ● No ○ Depth (inches): 2 Water Table Present? Yes ● No ○ Depth (inches): 4 Saturation Present? Yes ● No ○ Depth (inches): 4 Wetlan	Geomorphic Position (D2)
Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 4 Saturation Present? Yes No Depth (inches): 4	Shallow Aquitard (D3)
Field Observations: Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 4 Wetlan Saturation Present? Yes No Depth (inches): 0	Microtopographic Relief (D4)
Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 4 Saturation Present? Ves No Depth (inches): 4 Wetlan	
Water Table Present? Yes No Depth (inches): 4 Saturation Present? Ves No Depth (inches): 4 Wetlan	FAC-neutral Test (D5)
Saturation Present? Ves No Depth (inches): 0	
	FAC-neutral Test (D5)
CONTROL COMMON TOTAL	
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:	FAC-neutral Test (D5)
	FAC-neutral Test (D5)
Remarks:	FAC-neutral Test (D5)
scattered puddles of surface water, some evidence of moving surface water	FAC-neutral Test (D5)
	FAC-neutral Test (D5)

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