## WETLAND DETERMINATION DATA FORM - Alaska Region

Projec	t/Site: Susitna-Watana Hydroelectric Project	В	orough/City:	Matanusk	ka-Susitna Borough Sampling Date: 06-Jul-13
Applic	ant/Owner: Alaska Energy Authority				Sampling Point: SW13_T103_06
Invest	gator(s): WAD, BAB		Landform (hills	side, terrac	ce, hummocks etc.): drainage swale
Local	relief (concave, convex, none): concave		Slope: 5.2		0 ° Elevation: 730
Subre	gion : Interior Alaska Mountains	Lat ·	62.78373611		Long.: -147.827295065 Datum: WGS84
	ap Unit Name:		02.70070011		NWI classification: PEM1/SS1E
	matic/hydrologic conditions on the site typical for this ti	ima af vaar	2 Vac	● No ○	(If no, explain in Remarks.)
		•	y disturbed?		Normal Circumstances" present? Yes No
		-	oblematic?		eded, explain any answers in Remarks.)
	•				
SUM	MARY OF FINDINGS - Attach site map sho	wing sam	npling point	locations	s, transects, important features, etc.
	Hydrophytic Vegetation Present? Yes   No C		_		
	Hydric Soil Present? Yes   No C				ipled Area
	Wetland Hydrology Present? Yes   No C		wi	thin a W	/etland? Yes ● No ○
Ren	narks: photo num 1077, 1078 photo time 16:36. Carib	2011 60111 2011	d calf obcorvo	1	
IXCII	prioto fiditi 1077, 1076 prioto time 10.36. Camb	ou cow and	ı calı observec	1.	
VEGI	<b>ETATION</b> - Use scientific names of plants. L	ist all spe	cies in the	plot.	
		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tre	e Stratum	% Cover	Species?	Status	Number of Dominant Species
1.	Picea mariana	15	<b>✓</b>	FACW	That are OBL, FACW, or FAC: 5 (A)
2.		0			Total Number of Dominant Species Across All Strata:  5 (B)
3.					Percent of dominant Species
4.		0			That Are OBL, FACW, or FAC: 100.0% (A/B)
5.		0			Prevalence Index worksheet:
	Total Cover	: <u>15</u>			Total % Cover of: Multiply by:
Sap	oling/Shrub Stratum 50% of Total Cover:	7.5 20%	of Total Cover:	3	OBL Species35 x 1 =35
1.	Betula nana	20	<b>✓</b>	FAC	FACW Species 27.2 x 2 = 54.40
2.	Vaccinium uliginosum	6		FAC	FAC Species <u>52.1</u> x 3 = <u>156.3</u>
3.	Salix pulchra	1		FACW	FACU Species <u>0.1</u> x 4 = <u>0.400</u>
4.	Empetrum nigrum	1		FAC	UPL Species0 x 5 =0
5.	Spiraea stevenii	0.1		FACU	Column Totals: <u>114.4</u> (A) <u>246.1</u> (B)
6.	Picea mariana	10	✓	FACW	
7.		0			Prevalence Index = B/A = 2.151
8.		0			Hydrophytic Vegetation Indicators:
9.		0			Dominance Test is > 50%
10.		0			✓ Prevalence Index is ≤3.0
	Total Cover	5012	of Total Cauca	. 7.62	Morphological Adaptations (Provide supporting data in
	b Stratum 50% of Total Cover:		or rotal cover		Remarks or on a separate sheet)
1.	Carex Ioliacea	- 5		OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2.	Carex pauciflora			OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3.	Juncus castaneus	0.1		FACW	25 p. seemy amous distanced or propientation
4.	Equisetum arvense Rumex arcticus	$-\frac{20}{0.1}$		FAC FAC	Plot size (radius, or length x width) 10m
5. 6.	Calamagrostis canadensis	5		FAC	% Cover of Wetland Bryophytes
7.	Eriophorum angustifolium	- 5		OBL	(Where applicable)  % Bare Ground  0
8.	Eriophorum viridicarinatum	5		OBL	% Bare Ground 0  Total Cover of Bryophytes 5
9.	Eriophorum vaginatum	1		FACW	Total cover of bryophiyes
1 .	Petasites frigidus	0.1		FACW	Hydrophytic
10.					
10.	Total Cover	: 61.3			Vegetation
10.	<b>Total Cover</b> 50% of Total Cover: <u> </u>		of Total Cover:	12.26	Present? Yes ● No ○

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SOIL Sampling Point: SW13\_T103\_06

Profile Description  Depth =	Matrix			dox Featur		,		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc_2	Texture	Remarks
0-5							Fibric Organics	
5+								river bed, cobbles
							-	
							-	
¹Type: C=Conce	entration. D=Depleti	on. RM=Reduc	ed Matrix <sup>2</sup> Locatio	on: PL=Pore	Lining. RC	=Root Cha	nnel. M=Matrix	
Hydric Soil Ind	licators:		Indicators for P	roblematic	Hydric So	oils: <sup>3</sup>		
Histosol or H	listel (A1)		Alaska Color C	Change (TA4)	)		Alaska Gleyed Withou	t Hue 5Y or Redder
Histic Epiped	don (A2)		Alaska Alpine	swales (TA5)	)		Underlying Layer	
Hydrogen Su	ulfide (A4)		Alaska Redox	With 2.5Y Hu	ue		Other (Explain in Rem	narks)
Thick Dark S	Surface (A12)		3 0 :- d:	£				d bordenia acc
Alaska Gleye	ed (A13)		and an appropria				nary indicator of wetlan esent	la nyarology,
Alaska Redo	` '		4 Give details of o	color change	in Demark	re ·		
☐ Alaska Gleye	ed Pores (A15)		- dive details of t	color change	III Kelliaik	.5		
Restrictive Layer	(if present):							
Type:							<b>Hydric Soil Prese</b>	nt? Yes 💿 No 🔾
D 11 (1 1	s)·							
Depth (inches								
Remarks:  IYDROLOG  Wetland Hydro	iY logy Indicators:							ndicators (two or more are required)
Remarks:  HYDROLOG  Wetland Hydro  Primary Indicato	iY logy Indicators: ors (any one is suffici	ent)					Water S	Stained Leaves (B9)
Remarks:  HYDROLOG  Wetland Hydro  Primary Indicato  Surface Wat	iy logy Indicators: rs (any one is suffici ter (A1)	ent)		Visible on Ae	-		☐ Water S	Stained Leaves (B9) ge Patterns (B10)
IYDROLOG Wetland Hydro Primary Indicato  Surface Wat High Water	iy llogy Indicators: rs (any one is suffici ter (A1) Table (A2)	ent)	Sparsely Ve	getated Conc	-		☐ Water S ✓ Drainag ☐ Oxidize	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3)
IYDROLOG Wetland Hydro Primary Indicato  Surface Wat High Water USaturation (	iy llogy Indicators: lors (any one is suffici ter (A1) Table (A2) (A3)	ent)	Sparsely Ved Marl Deposit	getated Conc ts (B15)	cave Surfac		☐ Water S ✓ Drainag ☐ Oxidize ☐ Presend	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3) ge of Reduced Iron (C4)
Netiand Hydro  Vetiand Hydro  Vetiand Hydro  Vetiand Hydro  Vetiand Hydro  Vetiand Water  Vetiand Water  Vetiand Water  Water Market	iy logy Indicators: ors (any one is sufficiter (A1) Table (A2) (A3) s (B1)	ent)	Sparsely Veg Marl Deposit  Hydrogen St	getated Cond ts (B15) ulfide Odor (	cave Surfac		Water 9 ✓ Drainag Oxidize Presend Salt De	Stained Leaves (B9) Je Patterns (B10) d Rhizospheres along Living Roots (C3) Lee of Reduced Iron (C4) posits (C5)
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Netland Hydro  Netland Hydro  Primary Indicato  ✓ Surface Wat  ✓ High Water  ✓ Saturation (  Water Mark:  Sediment D  Drift Deposi  Algal Mat or  Iron Deposi	logy Indicators:  Instruction (A1)  Table (A2)  Instruction (A3)  Instruction (B2)  Instruction (B4)  Instruction (B4)  Instruction (B4)  Instruction (B4)  Instruction (B6)	ent)	Sparsely Ved Marl Deposit Hydrogen St Dry-Season	getated Cond ts (B15) ulfide Odor ( Water Table	cave Surface C1) (C2)		Water S  Prainag  Oxidize  Presence  Salt De  Stuntece  Geomon  Shallow  Microto	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3) de of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) r Aquitard (D3) pographic Relief (D4)
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