WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site	Susitna-Watana Hydroelectric Project		Borough/City:	Matanusk	a-Susitna Borough Sampling Date: 02-Aug-13								
Applicant/C	owner: Alaska Energy Authority				Sampling Point: SW13_T177_04								
Investigator(s): BAB Landform (hillside, terrace, hummocks etc.): Hillside													
Local relief	(concave, convex, none): flat		Slope:	%/ 7.7	⁷ * Elevation: 106								
Subregion	Interior Alaska Mountains	Lat.:	63.07530412	46	Long.: -148.071387559 Datum: NAD83								
Soil Map U					NWI classification: Upland								
Are climatic/hydrologic conditions on the site typical for this time of year? Yes O No O (If no, explain in Remarks.)													
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 significantly disturbed? Are "Normal Circumstances" present? Yes 💿 No 🔾													
Are Vege	Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally problematic? (If needed, explain any answers in Remarks.)												
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.													
Hydrophytic Vegetation Present? Yes O No O													
	Iric Soil Present? Yes O No •		ls	Is the Sampled Area									
-			within a Wetland? Yes \bigcirc No $oldsymbol{igstar}$										
Wetland Hydrology Present? Yes No No Remarks: tall closed birch shrub 50 ft uphill, south. Image: Control of the structure of the													
VEGETA	TION - Use scientific names of plants. Li	ct all cr	ocios in tho	nlot									
					Dominance Test worksheet:								
Tree Str	atum	Absolut % Cove		Indicator Status	Number of Dominant Species								
1.		0		-	That are OBL, FACW, or FAC: <u>1</u> (A)								
2.		0			Total Number of Dominant Species Across All Strata: 1 (B)								
3.		0			Percent of dominant Species								
4.		0			That Are OBL, FACW, or FAC: 100.0% (A/B)								
5.		0			Prevalence Index worksheet:								
	Total Cover:	0	-		Total % Cover of: Multiply by:								
Sapling	/Shrub Stratum 50% of Total Cover:	0 20	% of Total Cover	:	OBL Species x 1 =								
1. Bet	ula nana	70	\checkmark	FAC	FACW Species <u>15</u> x 2 = <u>30</u>								
2. Va	ccinium uliginosum	20		FAC	FAC Species <u>106</u> x 3 = <u>318</u>								
3. Rh	ododendron tomentosum	10		FACW	FACU Species <u>3.1</u> x 4 = <u>12.4</u>								
4. <u>Em</u>	petrum nigrum	10		FAC	UPL Species $0.1 \times 5 = 0.500$								
	ccinium vitis-idaea	5		FAC	Column Totals: <u>124.2</u> (A) <u>360.9</u> (B)								
	ix pulchra			FACW	Prevalence Index = B/A = 2.906								
7		0	-										
		0	-		Hydrophytic Vegetation Indicators: Image: Dominance Test is > 50%								
		0			✓ Prevalence Index is $≤ 3.0$								
10.	Total Cover:		_		Morphological Adaptations ¹ (Provide supporting data in								
Herb St				r: 24	Remarks or on a separate sheet)								
1. Ru	bus arcticus (IAM)	3		FACU	Problematic Hydrophytic Vegetation ¹ (Explain)								
2. Fe	stuca altaica	1		FAC	¹ Indicators of hydric soil and wetland hydrology must								
3. Art	emisia norvegica	0.1		FACU	be present, unless disturbed or problematic.								
4. <u>An</u>	thoxanthum monticola ssp. alpinum	0.1		UPL	Plot size (radius, or length x width) <u>10m</u>								
					% Cover of Wetland Bryophytes								
					(Where applicable)								
			- 📙		% Bare Ground								
			- 🖂		Total Cover of Bryophytes <u>90</u>								
		0											
10.	Total Cover:		_		Hydrophytic Vegetation								
	50% of Total Cover:	-		: 0.84	Present? Yes I No								
					1								

Remarks: Bryophytes mostly hylspl. total herb cover <5%, thus no herbs considered dominant.

	n: (Describe to	the depth r	eeded to docu	ment the indicator or co	onfirm the ab		cators)				
Depth (inches)	Color (m	oist)	%	Color (moist)	%	Type ¹	Loc 2	Texture	Remarks		
0-6								Fibric Organics			
6-8	10YR	6/2	100					Sandy Loam	tephra pockets mixed in		
8-13	7.5YR	2.5/2		,				Loamy Sand			
13-18	7.5YR	2.5/2	100		_			Sand			
		2.3/2									
					_						
			. <u> </u>								
			· ·								
¹ Type: C=Cond	centration. D	=Depletior	n. RM=Reduc	ed Matrix ² Locatio	n: PL=Por	e Lining. R	C=Root Cha	nnel. M=Matrix			
Hydric Soil Indicators: Indicators for Problematic Hydric Soils: ³											
Histosol or	Histel (A1)			Alaska Color C	hange (TA	4) ⁴		Alaska Gleyed Without H	ue 5Y or Redder		
Histic Epipe	edon (A2)			Alaska Alpine	swales (TA	5)	_	Underlying Layer			
Hydrogen S	Sulfide (A4)			Alaska Redox	With 2.5Y I	Hue		Other (Explain in Remarl	(S)		
Thick Dark	Surface (A12	2)		3 One indicator of	fbydrophy	tic voqotati	n ono prin	nary indicator of watland k	wdrology		
Alaska Gley	. ,			and an appropria				nary indicator of wetland h esent	iyarology,		
Alaska Rede				⁴ Give details of c	olor chang	e in Remarl	ks				
Alaska Gleyed Pores (A15) 4 Give details of color change in Remarks											
Restrictive Layer	r (if present)	:									
Type:								Hydric Soil Present	? Yes 🔾 No 🖲		
Depth (inches):											
Remarks:											
no hydric soil ind	dicators obse	rved									
HYDROLOG											
Wetland Hydro									cators (two or more are required)		
Primary Indicate		is sufficier	it)					Water Stained Leaves (B9)			
Surface Wa	r Table (A2)					5	, , ,				
				Sparsely Veg		icave Surra	се (ва)	Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4)			
Water Marl	. ,			Hydrogen Su	()	(C1)		Salt Depos			
	Deposits (B2))		Dry-Season				Stunted or Stressed Plants (D1)			
Drift Depos				Other (Expla				_	ic Position (D2)		
	or Crust (B4)			(2.p.		- /			quitard (D3)		
□ Iron Deposits (B5)								Microtopographic Relief (D4)			
Surface So	il Cracks (B6)						FAC-neutra	al Test (D5)		
Field Observat	tions:	-									
Surface Water	Present?		No 🖲	Depth (inch	es):						
Water Table Pr	esent?	Yes() No 🖲	Depth (inch	es):		Wetla	nd Hydrology Presen	t? Yes 🔾 No 🖲		
Saturation Pres (includes capill		Yes	No 🖲	Depth (inch	es):						
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:											
Remarks:											
no wetland hydr	ology indicat	tors observ	ed								