WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project	Borough/City:	Matanuska-Susitna Boroug	h Sampling Date: 19-Aug-15				
Applicant/Owner: Alaska Energy Authority		Sa	mpling Point: SW15_T327_07				
Investigator(s): GVF	Landform (hills	Landform (hillside, terrace, hummocks etc.): Hillside					
Local relief (concave, convex, none): hummocky	Slope: 7.0	% / 4.0 ° Elevation:					
Subregion : Cook Inlet Mountains	Lat.:	Long.:	Datum: WGS84				
Soil Map Unit Name:		NWI c	lassification: Upland				
	e of year? Yes (nificantly disturbed? turally problematic?	No (If no, explain any a construction) (If no, explain any a construction) (If needed, explain any a construction)	•				
SUMMARY OF FINDINGS - Attach site map showi	ng sampling point	locations, transects, in	nportant features, etc.				
Hydrophytic Vegetation Present? Yes No							
Hydric Soil Present? Yes O No 🔍		the Sampled Area					
Wetland Hydrology Present? Yes O No 🔍	wi	thin a Wetland?	Yes 🔾 No 🖲				

Remarks:

VEGETATION - Use scientific names of plants. List all species in the plot.

		Absolute Dominant		Indicator	Dominance Test worksheet:		
Tre	e Stratum	% Cover	Species?	Status	Number of Dominant Species		
1.	Picea glauca	10	\checkmark	FACU	That are OBL, FACW, or FAC: (A)		
2.		0			Total Number of Dominant Species Across All Strata: 5 (B)		
3.		0			Percent of dominant Species		
4.		0			That Are OBL, FACW, or FAC:60.0% (A/B)		
5.		0			Prevalence Index worksheet:		
	Total Cover:	10			Total % Cover of: Multiply by:		
Sapling/Shrub Stratum 50% of Total Cover: 5		5 20% (of Total Cover:	2	OBL Species $0 \times 1 = 0$		
1.	Empetrum nigrum	50	\checkmark	FAC	FACW Species 7 $x 2 = 14$		
2.		40		FAC	FAC Species 101.2 x 3 = 303.6		
3.	Spiraea stevenii			FACU	FACU Species 42 x 4 = 168		
4.	Salix barclayi		\square	FAC	UPL Species $0 \times 5 = 0$		
5.	Linnaea borealis	1		FACU	Column Totals: 150.2 (A) 485.6 (B)		
6	Vaccinium vitis-idaea			FAC	Column rotals. <u>130.2</u> (A) <u>465.0</u> (B)		
					Prevalence Index = B/A = <u>3.233</u>		
					Hydrophytic Vegetation Indicators:		
					✓ Dominance Test is > 50%		
		0			Prevalence Index is ≤3.0		
	Total Cover: 101 Morphological Adaptations (Provide supporting data in						
					Remarks or on a separate sheet)		
1.	Cornus canadensis	15	\checkmark	FACU	Problematic Hydrophytic Vegetation (Explain)		
2.	Sanguisorba canadensis	7	\checkmark	FACW	¹ Indicators of hydric soil and wetland hydrology must		
3.	Rubus arcticus			FAC	be present, unless disturbed or problematic.		
4.	Rubus pedatus	2		FAC	Plot size (radius, or length x width) 10m		
5.	Lycopodium clavatum	3		FACU	Plot size (radius, or length x width) <u>10m</u> % Cover of Wetland Bryophytes		
6.	Lupinus nootkatensis	3		FACU	(Where applicable)		
7.	Chamaenerion angustifolium	2		FACU	% Bare Ground _5		
8.	Calamagrostis canadensis	2		FAC	Total Cover of Bryophytes		
9.	Streptopus amplexifolius	1		FACU			
10.	Festuca altaica	0.1		FAC	Hydrophytic		
Total Cover: 39.1 Vegetation							
50% of Total Cover: <u>19.55</u> 20% of Total Cover: <u>7.82</u> Present? Yes • No O							
Remarks: trace geranium erianthum, artemisia norvegica							

SOIL

	n: (Describe to	o the depth n Matrix	eeded to doc	ument the indicator or co	nfirm the ab		ators)			
Depth - (inches)	Color (m		%	Color (moist)	%	Type ¹	Loc 2	Texture	Remarks	
0-2	00.01 (0132)				.,,,,,	<u> </u>	Hemic Organics		
2-4	7.5YR	3/2	100					Silt Loam		
4-5	5YR	2.5/2	100	·				Silt Loam	-	
5-6	10YR	3/3	100					Silt Loam	P	
6-8	7.5YR	2.5/3	100					Silt Loam		
8-12	7.5YR	2.5/3	100					Loamy Sand		
12-17	2.5Y	4/3	100	·	- ,			Sand	w/ gravel	
								-		
¹ Type: C=Conc	entration. D	=Depletion	. RM=Redu	iced Matrix ² Location	n: PL=Por	e Lining. RC	=Root Cha	nnel. M=Matrix	-	
Hydric Soil Inc	licators:			Indicators for Pr	oblemati	c Hydric S	oils: ³			
Histosol or H	Histel (A1)			Alaska Color C	hange (TA	4) 4] Alaska Gleyed Without H	lue 5Y or Redder	
Histic Epiped	don (A2)									
Hydrogen Si	• • •			Alaska Redox V	Nith 2.5Y I	Hue		Other (Explain in Remar	ks)	
Thick Dark S		2)		³ One indicator of	hvdrophv	tic vegetatio	n, one prin	nary indicator of wetland h	nvdrology,	
Alaska Gleye				and an appropriat					1	
Alaska Redo	• •	15)		⁴ Give details of c	olor chang	e in Remark	S			
Restrictive Layer	-	-								
Type:	(ii present)	•						Hydric Soil Present	:? Yes 🔿 No 🖲	
Depth (inche	s):									
no hydric soil ind										
HYDROLOG	βY									
Wetland Hydro		ators:						Secondary Indi	icators (two or more are required)	
Primary Indicato	ors (any one	e is sufficien	t)					Water Stai	ined Leaves (B9)	
Surface Wa				Inundation V		-			Patterns (B10)	
High Water	. ,			Sparsely Veg		ncave Surfa	ce (B8)		Rhizospheres along Living Roots (C3)	
Saturation (. ,			Marl Deposit	. ,	(C1)		Salt Depos	of Reduced Iron (C4)	
Sediment D)		U Hydrogen Su					r Stressed Plants (D1)	
		/		Other (Expla		. ,			ic Position (D2)	
Algal Mat o									quitard (D3)	
Iron Deposi	its (B5)							Microtopo	graphic Relief (D4)	
Surface Soil	l Cracks (B6	i)						FAC-neutra	al Test (D5)	
Field Observat	ions:									
Surface Water F	Present?		🔾 No 🖲	- F - X	es):					
Water Table Pre	esent?	Yes 🤇	🗅 No 🖲	Depth (inche	es):		Wetla	nd Hydrology Preser	nt? Yes 🔾 No 🖲	
Saturation Prese (includes capilla		Yes C) No 🖲	Depth (inche	es):					
	ed Data (str	eam gauge	, monitor w	vell, aerial photos, pre	vious inspe	ection) if ava	ailable:			
Remarks:										

no wetland hydrology indicators