## WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project	Borough/City: Matanuska-Susitna Borough Sampling Date: 10-Jul-13					
Applicant/Owner: Alaska Energy Authority	Sampling Point: SW13_T127_03					
Investigator(s): SLI, SCB	Landform (hillside, terrace, hummocks etc.): Mountainslope					
Local relief (concave, convex, none): flat	Slope: 20.0 % / 11.3 ° Elevation: 1204					
Subregion : Southcentral Alaska La	at.: <u>62.943167329</u> Long.: <u>-149.000428081</u> Datum: <u>WGS84</u>					
Soil Map Unit Name:	NWI classification: Upland					
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation , Soil , or Hydrology significantly disturbed? Are Vegetation , Soil , or Hydrology naturally problematic? Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)						
	sampling point locations, transects, important features, etc.					

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes () Yes () Yes ()	-	Is the Sampled Area within a Wetland?	Yes $\bigcirc$ No $oldsymbol{eta}$
Remarks:				

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

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree	e Stratum	% Cover	Species?	Status	Number of Dominant Species
1.		0			That are OBL, FACW, or FAC: <u>3</u> (A)
2.		0			Total Number of Dominant Species Across All Strata: 6 (B)
3.		0			Percent of dominant Species
4.					That Are OBL, FACW, or FAC: $50.0\%$ (A/B)
5.		0			Prevalence Index worksheet:
	Total Cover:	0			Total % Cover of: Multiply by:
Sap	ling/Shrub Stratum 50% of Total Cover:	0 20%	of Total Cover:	0	OBL Species $0 \times 1 = 0$
1.	Empetrum nigrum	15	$\checkmark$	FAC	FACW Species $0.1 \times 2 = 0.200$
2.	Consigna totragona	10		FACU	FAC Species 18.1 x 3 = 54.30
3.				UPL	FACU Species 12.1 x 4 = 48.40
4.	Salix ratundifalia	1		FAC	UPL Species 5.3 x 5 = 26.5
5.	Diapensia lapponica	0.1		UPL	Column Totals: 35.6 (A) 129.4 (B)
6.	Ledum decumbens	0.1		FACW	
7.	Vaccinium vitis-idaea	0.1		FAC	Prevalence Index = B/A = <u>3.635</u>
8.		0			Hydrophytic Vegetation Indicators:
		0			Dominance Test is > 50%
		0			Prevalence Index is ≤3.0
					Morphological Adaptations <sup>1</sup> (Provide supporting data in
Her	b Stratum 50% of Total Cover:	<u>5.65</u> 20%	of Total Cover:	6.26	Remarks or on a separate sheet)
1.	Artemisia norvegica	1	$\checkmark$	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2.	Carex bigelowii		$\checkmark$	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3.	Gentiana glauca	1	$\checkmark$	FAC	be present, unless disturbed or problematic.
4.	Anthoxanthum monticola ssp. alpinum	-	$\checkmark$	FACU	Plot size (radius, or length x width)
5.	Anemone narcissiflora	0.1		FACU	Plot size (radius, or length x width) <u>10m</u> % Cover of Wetland Bryophytes
6.	Sedum rosea	0.1		FAC	(Where applicable)
7.	Arnica alpina var. attenuata	0.1		UPL	% Bare Ground 30
8.	Antennaria monocephala	0.1		UPL	Total Cover of Bryophytes 10
9.	Campanula lasiocarpa	0.1		UPL	
10.	Diphasiastrum alpinum	0.1		FACU	Hydrophytic
	Total Cover:	4.6			Vegetation
	50% of Total Cover:	2.3 20%	of Total Cover:	0.92	Present? Yes No 💿

Remarks: Bare ground = small boulders with crustose lichen. Abundant forage lichens including cladina, stereocaulon, thaver. trace carex crawfordii, unid sp (maybe primula cuneifolia?)

Profile Description		the depth r Matrix	eeded to docu	ment the indicator or co	nfirm the al		cators)			
(inches)	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-1								Hemic Organics		
1-7	10YR	2/1	100					Loam		
7-9	2.5Y	3/1						Loam		
9-14	10YR	4/3	100					Sandy Loam		
			,_							
								-		
<sup>1</sup> Type: C=Con	centration. D	=Depletior	n. RM=Reduc	ed Matrix <sup>2</sup> Location	n: PL=Po	re Lining. RO	C=Root Cha	annel. M=Matrix		
Hydric Soil Ir	dicators:			Indicators for Pr	oblemati	ic Hydric S	oils: <sup>3</sup>			
-	Histel (A1)			Alaska Color Cl		4		] Alaska Gleyed Without H	ie 5Y or Redder	
Histic Epipe	. ,			Alaska Alpine s				Underlying Layer		
	Sulfide (A4)			Alaska Redox V		-		Other (Explain in Remark	s)	
	Surface (A12	)								
Alaska Gle		/						mary indicator of wetland h	ydrology,	
Alaska Red				and an appropriat	te landsca	pe position	must be pre	esent		
_	yed Pores (A1	5)		<sup>4</sup> Give details of c	olor chang	ge in Remarl	ks			
Restrictive Laye	r (if precent):	-								
Type:	i (ii presenc).							Hydric Soil Present	? Yes 🔿 No 🖲	
Depth (inch	es):							Hyunc Son Fresenc		
abundant ang-s	ubang gravel	s-boulders	throughout	soil profile. no hydric	soil indica	ators.				
HYDROLO	GY									
Wetland Hydr	ology Indica	ators:						Secondary India	cators (two or more are required)	
Primary Indicat	ors (any one	is sufficier	it)					Water Stain	ned Leaves (B9)	
Surface W				Inundation V	isible on A	Aerial Image	ry (B7)			
	High Water Table (A2) Sparsely Vegetated Concave S				ncave Surfa	ce (B8)		hizospheres along Living Roots (C3)		
			Marl Deposite					f Reduced Iron (C4)		
Water Mar				Hydrogen Su			Salt Deposits (C5)			
Drift Depo	Deposits (B2)			Dry-Season \				Stunted or Stressed Plants (D1)		
	sits (B3) or Crust (B4)			Other (Expla	in in Rema	arks)		Geomorphi	. ,	
									raphic Relief (D4)	
	Iron Deposits (B5) Surface Soil Cracks (B6)					FAC-neutral Test (D5)				
Field Observa	. ,									
Surface Water		Yes (	No 🖲	Depth (inche	s):					
Water Table P				Depth (inche			Wetla	nd Hydrology Presen	t? Yes 🔿 No 🖲	
Saturation Pre	sent?	_		Depth (inche				,		
(includes capil						action) if a	ailable			
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:										
Remarks:										
no wetland hyd	rology indicat	ors								