## WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project	Borough/City:	Aatanuska-Susitna Borough	Sampling Date: 07-Aug	g-12			
Applicant/Owner: Alaska Energy Authority		Samplir	ng Point: SW12_T3	5_01			
Investigator(s): SLI, KMK	Landform (hillsio	le, terrace, hummocks etc.):	Mountainslope				
Local relief (concave, convex, none): concave		6 / <u>3.0</u> • Elevation: <u>869</u>					
Subregion : Southcentral Alaska Lat.:	62.7644699091	Long.: -149.630149	966 Datum: W	GS84			
Soil Map Unit Name:		NWI classi	fication: Upland				
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No C (If no, explain in Remarks.) Are Vegetation Are Vegetation Are Normal Circumstances" present? Yes No C Are Vegetation Are Normal Circumstances" present? Yes No C Are Vegetation Are Normal Circumstances" present? Yes No C (If no, explain in Remarks.) Are No C (If no, explain in Remarks.)							
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.							

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes ● Yes ○ Yes ○	No ○ No ● No ●	Is the Sampled Area within a Wetland?	Yes $\bigcirc$ No $ullet$	
	<i>c</i>		 		

Remarks: alpine meadow. NW portion of site a micro-low, wetter and protected w high species diversity. majority of site dominated by dwarf ericaceous veg.

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

		Abso	lute	Dominant	Indicator	Dominance Test worksheet:
Tre	e Stratum	% Co		Species?	Status	Number of Dominant Species
1.	Bistorta vivipara	_	1	$\checkmark$	FAC	That are OBL, FACW, or FAC: <u>9</u> (A)
2.	Deschampsia cespitosa	_	1	$\checkmark$	FAC	Total Number of Dominant Species Across All Strata: 12 (B)
3.	Chamerion latifolium		1	$\checkmark$	FAC	Percent of dominant Species
4.	Lupinus arcticus	_	1	$\checkmark$	FACU	That Are OBL, FACW, or FAC: 75.0% (A/B)
5.	Sanguisorba canadensis		2	$\checkmark$	FACW	Prevalence Index worksheet:
	Total Cover		6			Total % Cover of: Multiply by:
Sap	ling/Shrub Stratum 50% of Total Cover:	3	20% (	of Total Cover:	1.2	OBL Species $0 \times 1 = 0$
1.	Vaccinium uliginosum		55	$\checkmark$	FAC	FACW Species $15$ x 2 = $30$
2.	Empetrum nigrum	-	30	$\checkmark$	FAC	FAC Species <u>125</u> x 3 = <u>375</u>
3.	Salix pulchra	-	7		FACW	FACU Species 30 x 4 = 120
4.	Betula nana	_	30	$\checkmark$	FAC	UPL Species <u>1</u> x 5 = <u>5</u>
5.	Arctostaphylos alpina		10		FACU	Column Totals: <u>171</u> (A) <u>530</u> (B)
6.	Picea glauca		2		FACU	
7.	Salix reticulata	_	2		FAC	Prevalence Index = B/A = <u>3.099</u>
8.	Cassiope tetragona	_	2		FACU	Hydrophytic Vegetation Indicators:
9.	Spiraea stevenii	_	2		FACU	✓ Dominance Test is > 50%
10.	Luetkea pectinata		1		UPL	Prevalence Index is ≤3.0
	Total Cover	: _1	41			Morphological Adaptations <sup>1</sup> (Provide supporting data in
Her	b Stratum 50% of Total Cover:	70.5	20%		28.2	Remarks or on a separate sheet)
1.	Rubus chamaemorus	_	3	$\checkmark$	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2.	Bistorta plumosa	_	4	$\checkmark$	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3.	Carex bigelowii	_	3	$\checkmark$	FAC	be present, unless disturbed or problematic.
4.	Cornus canadensis		7	$\checkmark$	FACU	Plot size (radius, or length y width)
5.	Carex saxatilis		2		FACW	Plot size (radius, or length x width) <u>10m</u> % Cover of Wetland Bryophytes
6.	Anthoxanthum monticola ssp. alpinum		1		FACU	(Where applicable)
7.	Artemisia norvegica	_	1		FACU	% Bare Ground 0
8.	Calamagrostis lapponica		1		FAC	Total Cover of Bryophytes 70
9.	Festuca altaica		1		FAC	
10.	Swertia perennis	_	1		FACW	Hydrophytic
	Total Cover	: _2	24			Vegetation
	50% of Total Cover:	12	20% 0	of Total Cover:	4.8	Present? Yes $\bullet$ No $\bigcirc$

Remarks: 1% pedlan, luzula arcuata, phleum alpinum, carex stylosa, carex magellanica, carex chordorrhiza, vahlodea atropurpurea.additional herbs listed in tree stratum. Picgla krummholz. Descae w no inflorescence, cespitise grass w tightly inrolled lvs and parallel veination.

SOIL
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Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)      Matrix   Redox Features												
Depth (inches)			Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks				
0-3								Fibric Organics				
3-5							<u>.</u>	Hemic Organics				
5-6				· · · · · ·	-			Sapric Organics				
6-15	2.5YR	2.5/3	55					Very Fine Loamy Sand	5% sapric lenses 4	0% ang cobble		
15-18	2.5YR	3/3	70					Sandy Loam	30% angular cobbl	es		
				·				·				
								-				
<sup>1</sup> Type: C=Cone	centration. D	=Depletion	. RM=Redu	uced Matrix <sup>2</sup> Location	n: PL=Por	e Lining. R	C=Root Cha	nnel. M=Matrix				
Hydric Soil In	dicators:			Indicators for Pr	oblemati	c Hydric S	oils: <sup>3</sup>					
Histosol or				Alaska Color Cl		4		Alaska Gleyed Without H	ue 5Y or Redder			
Histic Epipe	. ,			🗌 Alaska Alpine s	wales (TA	5)		Underlying Layer				
Hydrogen S	Sulfide (A4)			🗌 Alaska Redox V	Vith 2.5Y H	lue		Other (Explain in Remarks)				
Thick Dark	Surface (A12	2)		30								
🗌 Alaska Gley	ed (A13)			and an appropriat				nary indicator of wetland h esent	yarology,			
Alaska Red	. ,				-							
Alaska Gley	ed Pores (A1	.5)		<sup>4</sup> Give details of co			KS					
Restrictive Layer	r (if present)	:										
Type:								Hydric Soil Present	? Yes $\bigcirc$	No 🖲		
Depth (inche	es):											
Remarks: buried organics	throughout, I	no hydric s	oil indicato	rs								
HYDROLOG	GY											
Wetland Hydro								Secondary Indi	cators (two or mo	re are required)		
Primary Indicat		is sufficien	t)						ned Leaves (B9)			
Surface Wa	( )			Inundation V		5	, , ,		atterns (B10)			
Saturation	r Table (A2)			Sparsely Veg		icave Surfa	ce (B8)	_	nizospheres along f Reduced Iron ((	Living Roots (C3)		
Water Mar	. ,			Marl Deposits Hydrogen Su	. ,	(C1)		Salt Depos		(ד.		
	Deposits (B2)	)		Dry-Season \					Stressed Plants (	D1)		
Drift Depos				Other (Explai		• •			ic Position (D2)	/		
Algal Mat o	or Crust (B4)					- /		Shallow Ac	uitard (D3)			
Iron Depos	sits (B5)							Microtopog	raphic Relief (D4	)		
Surface So	il Cracks (B6)	)						FAC-neutra	l Test (D5)			
Field Observat	tions:	~										
Surface Water	Present?	_	No 🖲	- F - X	s):				-			
Water Table Pr	esent?	Yes 🤇	🔾 No 🖲	Depth (inche	s):		Wetla	nd Hydrology Presen	t? Yes 🔿	No 🖲		
Saturation Pres (includes capill		Yes 🤇	No 🖲	Depth (inche	s):							
Describe Record	ed Data (stre	eam gauge	, monitor v	vell, aerial photos, prev	vious inspe	ection) if av	ailable:					
Remarks:												

no wetland hydrology indicators