WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project/Site:	oject	Borough/City:	Matanuska-S	usitna Borough	_ Sampling Date:	22-Aug-15
Applicant/Owner: Alaska Energy Authority				Samp	ling Point: S	W15_T210_01
Investigator(s): WAD, SCB		Landform (hi	llside, terrace, h	ummocks etc.):	drainage	
Local relief (concave, convex, none): hummoo	ky	Slope: 8.7	%/°	Elevation:	-	
Subregion : Interior Alaska Mountains	Lat.:		Lo	ng.:	C	Datum: WGS84
Soil Map Unit Name:				NWI class	sification: PEM1	/SS1E
Are climatic/hydrologic conditions on the site typic Are Vegetation , Soil , or Hydrol Are Vegetation , Soil , or Hydrol SUMMARY OF FINDINGS - Attach site	ogy Significan ogy naturally p map showing sa	tly disturbed? problematic?	(If needed		s" present? Yes wers in Remarks.)	I
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes	• No ()		the Sample ithin a Wetla		fes $ullet$ No $igcap$	
Remarks: VEGETATION - Use scientific names of	plants. List all sc	pecies in the	plot.			
	Absolute % Cove	e Dominant	Indicator	ominance Test we		

Tre	e Stratum		%	Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)				
1.											
2.			_				Total Number of Dominant Species Across All Strata:4(B)				
3. 4.			-				Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)				
4. 5.			_								
э.			-				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 <u>47</u> x 1 = <u>47</u>				
1.	Dasiphora fruticosa		_	30	\checkmark	FAC	FACW Species <u>1</u> x 2 = <u>2</u>				
2.	Betula nana		_	3		FAC	FAC Species <u>34.3</u> x 3 = <u>102.9</u>				
3.	Vaccinium uliginosum		_	1		FAC	FACU Species $0 x 4 = 0$				
4.	Empetrum nigrum			0.1		FAC	UPL Species x 5 =				
5.	Andromeda polifolia(IAM)			1		OBL	Column Totals: <u>82.3</u> (A) <u>151.9</u> (B)				
6.			_	0			Drevelence Index = D/A = -1.04C				
7.			_	0			Prevalence Index = B/A = <u>1.846</u>				
				0			Hydrophytic Vegetation Indicators:				
9.				0			✓ Dominance Test is > 50%				
10.				0			✓ Prevalence Index is ≤3.0				
		Total Cove	-	35.1			Morphological Adaptations (Provide supporting data in				
Her	b Stratum	50% of Total Cover:	17.55	7.55 20% of Total Cover: 7.0			Remarks or on a separate sheet)				
1.	Carex aquatilis		_	20		OBL	Problematic Hydrophytic Vegetation (Explain)				
2.	Menyanthes trifoliata		_	1		OBL	¹ Indicators of hydric soil and wetland hydrology must				
3.	Swertia perennis		_	1		FACW	be present, unless disturbed or problematic.				
4.	Eriophorum angustifolium		_	15	\checkmark	OBL	Plot size (radius, or length x width) 10m				
5.	Viola palustris(IAM)		_	0.1		FAC	% Cover of Wetland Bryophytes				
6.	Trichophorum caespitosum		_	10		OBL	(Where applicable)				
7.	Rumex arcticus		_	0.1		FAC	% Bare Ground25				
8.			_	0			Total Cover of Bryophytes				
9.			_	0							
			_	0			Hydrophytic				
		Vegetation									
		50% of Total Cover:	23.6	20%	of Total Cover:	9.44	Present? Yes • No				
Rem	Remarks: Wet sedge with mossy hummocks (sphagnum) with dasfru										

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators) Matrix Redox Features													
Depth (inches)	Color (mois		% C	olor (moist)	%	Type ¹	Loc ²	. т	exture	Re	emarks		
					_/0	Туре	LUC						
								-					
			,		-	- <u> </u>		-					
¹ Type: C=Cor	ncentration. D=I	Depletion. R	M=Reduced I	Matrix ² Location	: PL=Pore	e Lining. RO	C=Root Cha	nnel. M=M	atrix				
Hydric Soil Indicators: Indicators for Problematic Hydric Soils: ³													
Histosol or	Histel (A1)			Alaska Color Change (TA4)					eyed Without Hi				
Histic Epip	edon (A2)			Alaska Alpine swales (TA5)					Underlying Layer				
Hydrogen	Sulfide (A4)			Alaska Redox With 2.5Y Hue					plain in Remark	s)			
Thick Dark	Surface (A12)												
🗌 Alaska Gle	yed (A13)		3	One indicator of and an appropriate	hydrophyti	ic vegetation	on, one prim	nary indica	tor of wetland h	ydrology,			
🗌 Alaska Red	lox (A14)		d		e ianuscap	e posicion	must be pre	esent					
🗌 Alaska Gle	yed Pores (A15))	4	Give details of co	lor change	e in Remarl	ks						
Restrictive Laye													
Type:	er (ir present).							Uvdria	Soil Present	?Yes 🖲	No O		
Depth (inch).							пушіс	Son Present	r ies 🖯			
Deptil (ilici	ies).												
Remarks:													
inundated, no p	oit. assume hydi	ic soil.											
HYDROLO	GY												
Wetland Hyd	rology Indicat	ors:							Secondary India	cators (two or mo	re are required)		
Primary Indica	tors (any one is	sufficient)							Water Stair	ned Leaves (B9)			
✓ Surface W	/ater (A1)			Inundation Vi	sible on Ae	erial Image	ery (B7)		Drainage Patterns (B10)				
✓ High Wate								Oxidized Rhizospheres along Living Roots (C3)					
Saturation	n (A3)			Marl Deposits	(B15)		. ,	Presence of Reduced Iron (C4)					
🗌 Water Ma	Water Marks (B1) Hydrogen Sulfide Odor (C1)							Salt Deposits (C5)					
Sediment	Deposits (B2)			Dry-Season V				Stunted or Stressed Plants (D1)					
Drift Depo	,			Other (Explain		• •			Geomorphic Position (D2)				
	or Crust (B4)								Shallow Aq	. ,			
✓ Iron Deposits (B5)								Microtopographic Relief (D4)					
· _ ·	oil Cracks (B6)								✓ FAC-neutra				
Field Observa										/			
Surface Water		Yes 🖲	No O	Depth (inche	5): 4								
		Yes •					Watter	nd Hydra	logy Presen	t?Yes 🖲			
Water Table P				Depth (inche	s): 0		wettar		nogy Presen				
Saturation Pre (includes capi		Yes 🖲	No 🔾	Depth (inche	s): 0								
Describe Recor	ded Data (strea	m gauge, me	onitor well, a	erial photos, prev	ious inspe	ction) if av	ailable:						
Remarks:													
B5-microbial sh	een and iron o	ide sedimen	ts										