## WETLAND DETERMINATION DATA FORM - Alaska Region

	/Site: Susitna-Watana Hydroelectric Project		Borough/City:	Matanusk	xa-Susitna Borough Sampling Date: 20-Jun-12			
Applica	nt/Owner: Alaska Energy Authority				Sampling Point: SW12_T06_01			
nvesti	gator(s): SLI, EKJ		_ Landform (hill	side, terrac	e, hummocks etc.): Lowland			
_ocal r	elief (concave, convex, none): hummocky		Slope:	% / 5.4	/ 5.4 ° Elevation: 455			
Subreg	ion: Interior Alaska Mountains	Lat.:	62.83014816	2.83014816 Long.: -148.607035705 Datum: NA				
Soil Ma	p Unit Name:				NWI classification: PSS1E			
Are clir	natic/hydrologic conditions on the site typical for this	s time of ve	ar? Yes	No ○	(If no, explain in Remarks.)			
	egetation $\square$ , Soil $\square$ , or Hydrology $\square$	•	ntly disturbed?	Are "N	lormal Circumstances" present? Yes ● No ○			
Are V	egetation $\square$ , Soil $f arphi$ , or Hydrology $\square$	naturally	problematic?	(If nee	eded, explain any answers in Remarks.)			
NMU	MARY OF FINDINGS - Attach site map sh	าowing sa	mpling point	locations	s, transects, important features, etc.			
	, p, g	0	le	the Sam	unlad Araa			
	Hydric Soil Present? Yes   No	$\circ$	Is the Sampled Area within a Wetland? Yes ● No ○					
	3)	$\circ$			Chana.			
		nated by vac	culi w stressed pi	icgla dwarf	abundant standing water throughout. scattered picgla trees. inter-hummocks w standing water, dominated by			
	•	Absolut		•	Dominance Test worksheet:			
Tree	e Stratum_	% Cove		Status	Number of Dominant Species			
1.		0			That are OBL, FACW, or FAC:  4  (A)			
2.		0			Total Number of Dominant Species Across All Strata: 4 (B)			
3.		^			Percent of dominant Species			
4.		_			That Are OBL, FACW, or FAC: 100.0% (A/B)			
5.		0			Prevalence Index worksheet:			
	Total Cov	ver: <u> </u>	_		Total % Cover of: Multiply by:			
Sap	ling/Shrub Stratum 50% of Total Cover:	020	% of Total Cover:	0	OBL Species <u>16</u> x 1 = <u>16</u>			
1.	Picea glauca	3		FACU	FACW Species x 2 =2			
2.	Vaccinium uliginosum	25	<b>~</b>	FAC	FAC Species <u>43</u> x 3 = <u>129</u>			
3.	Salix barclayi	10	<b>✓</b>	FAC	FACU Species <u>4</u> x 4 = <u>16</u>			
4.	Andromeda polifolia (IAM)			OBL	UPL Species 1 x 5 = 5			
5.	Betula nana	1		FAC	Column Totals: <u>65</u> (A) <u>168</u> (B)			
6.	Rhododendron groenlandicum	1			` ,			
			_	FAC	Dravalance Index = P/A = 2.505			
7.		0		FAC	Prevalence Index = B/A =2.585_			
0		0		FAC	Hydrophytic Vegetation Indicators:			
8. 9.		0 0		FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%			
8.		0 0 0		FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤3.0			
8. 9. 10.		0 0 0 0 0 0			Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0  Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)			
8. 9. 10. <b>Her</b>	Total Cov	0 0 0 0 0 ver: 41 20.5 20	0% of Total Cover		Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤3.0  ☐ Morphological Adaptations <sup>1</sup> (Provide supporting data in			
8. 9. 10. <b>Her</b>	Total Cov b Stratum 50% of Total Cover:	0 0 0 0 0 ver: 41 20.5 20	0% of Total Cover		Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤3.0  ☐ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must			
8. 9. 10. <b>Her</b> 1.	Total Cov b Stratum 50% of Total Cover:  Comarum palustre	0 0 0 0 ver: 41 20.5 20 10 5	0% of Total Cover	8.2 OBL	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤3.0  Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
8. 9. 10. <u>Her</u> 1. 2.	Total Cov 50% of Total Cover:  Comarum palustre  Equisetum fluviatile  Rumex arcticus  Eriophorum russeolum	0 0 0 0 ver: 41 20.5 20 10 5 3	0% of Total Cover		Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤ 3.0  Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
8. 9. 10. <u>Her</u> 1. 2. 3.	Total Cov 50% of Total Cover:  Comarum palustre Equisetum fluviatile Rumex arcticus Eriophorum russeolum Carex gmelinii	0 0 0 0 ver: 41 20.5 20 10 5 3 1	0% of Total Cover	OBL FAC FACW FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤3.0  ☐ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must			
8. 9. 10. <b>Her</b> 1. 2. 3. 4. 5.	Total Cov 50% of Total Cover:  Comarum palustre Equisetum fluviatile Rumex arcticus Eriophorum russeolum Carex gmelinii Carex aenae	0   0   0   0   0   0   0   0   0   0	0% of Total Cover	OBL OBL FAC FACUPL	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤3.0  ☐ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Plot size (radius, or length x width) 10m			
8. 9. 10. <b>Her</b> 1. 2. 3. 4. 5. 6. 7.	Total Cov 50% of Total Cover:  Comarum palustre  Equisetum fluviatile  Rumex arcticus  Eriophorum russeolum  Carex gmelinii  Carex aenae  Carex albonigra	0   0   0   0   0   0   0   0   0   0	0% of Total Cover	OBL FAC FACW FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0			
8. 9. 10. Her 1. 2. 3. 4. 5. 6. 7. 8.	Total Cov 50% of Total Cover:  Comarum palustre  Equisetum fluviatile  Rumex arcticus  Eriophorum russeolum  Carex gmelinii  Carex aenae  Carex albonigra	0   0   0   0     0	0% of Total Cover	OBL OBL FAC FACUPL	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0			
8. 9. 10. <b>Her</b> 1. 2. 3. 4. 5. 6. 7. 8. 9.	Total Cov 50% of Total Cover:  Comarum palustre  Equisetum fluviatile  Rumex arcticus  Eriophorum russeolum  Carex gmelinii  Carex aenae  Carex albonigra	0   0   0   0   0   0       0     0     0     0       0       0       0       0       0       0       0         0         0         0           0	0% of Total Cover	OBL OBL FAC FACUPL	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤3.0  ☐ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Plot size (radius, or length x width)  % Cover of Wetland Bryophytes (Where applicable)  % Bare Ground  Total Cover of Bryophytes  88			
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SOIL Sampling Point: SW12\_T06\_01

Profile Descript  Depth	•	he depth need <b>latrix</b>	ed to document	ocument the indicator or confirm the absence of indicators) <b>Redox Features</b>					
(inches)	Color (moi	st)	% Co	olor (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
		,				-77-			
				<del></del>					
								-	
¹Type: C=Co	ncentration. D=	Depletion. R		1atrix <sup>2</sup> Locatio				nnel. M=Matrix	
Hydric Soil I	ndicators:		In	dicators for P		4	oils:		
Histosol o	r Histel (A1)			Alaska Color C	hange (TA4	1)		Alaska Gleyed Without H	ue 5Y or Redder
Histic Epip	oedon (A2)			Alaska Alpine	swales (TA5	5)		Underlying Layer	
Hydrogen	Sulfide (A4)			☐ Alaska Redox With 2.5Y Hue					cs)
Thick Darl	k Surface (A12)		•						
Alaska Gle	eyed (A13)			One indicator of nd an appropria				ary indicator of wetland h	nydrology,
Alaska Re	dox (A14)					•		Serie	
Alaska Gle	eyed Pores (A15	)	4	Give details of c	olor change	e in Remark	S		
Restrictive Laye	er (if present):								
Type:								<b>Hydric Soil Present</b>	? Yes ● No O
Depth (incl	hes):								
HYDROLO	GY								
Wetland Hyd	rology Indicat	ors:						Secondary Indi	cators (two or more are required)
Primary Indica	ators (any one is	sufficient)						Water Stai	ned Leaves (B9)
✓ Surface V	Vater (A1)		[	☐ Inundation \	isible on A	erial Imager	y (B7)	<b>✓</b> Drainage F	Patterns (B10)
✓ High Wat	er Table (A2)		[	Sparsely Veg	jetated Con	cave Surfac	ce (B8)	Oxidized R	hizospheres along Living Roots (C3)
✓ Saturation	n (A3)		[	Marl Deposit	s (B15)			Presence of	of Reduced Iron (C4)
☐ Water Ma	irks (B1)			Hydrogen Su	ılfide Odor	(C1)		☐ Salt Depos	sits (C5)
Sediment	Deposits (B2)		[	Dry-Season	Water Table	e (C2)		☐ Stunted or	Stressed Plants (D1)
☐ Drift Depo	osits (B3)		[	Other (Expla	in in Rema	rks)		✓ Geomorph	ic Position (D2)
Algal Mat	or Crust (B4)							Shallow Ac	quitard (D3)
☐ Iron Depo	osits (B5)							☐ Microtopog	graphic Relief (D4)
Surface S	ioil Cracks (B6)							✓ FAC-neutra	al Test (D5)
Field Observa	ations:								
Surface Wate	r Present?	Yes 💿	No O	Depth (inche	es): 4				
Water Table F	Present?	Yes	No O	Depth (inche	es). U		Wetlan	d Hydrology Presen	t? Yes   No
Saturation Pre	esent?				•				
(includes capi		Yes •	NO U	Depth (inche	es): 0				
Describe Recor	rded Data (strea	ım gauge, m	onitor well, a	erial photos, pre	vious inspe	ction) if ava	ilable:		
Remarks:									
	of slope. stunte	d / stressed	picgla in wetl	and, robust pice	ıla in adiace	ent upland.	water deptl	h ranges from 2-6in, with	channelized flow through western
								erhanging veg, predomina	

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