## WETLAND DETERMINATION DATA FORM - Alaska Region

Project/	/Site: Susitna-Watana Hydroelectric Project		Borough/City:	Matanusk	a-Susitna Borough Sampling Date: 24-Aug-15		
Applica	nt/Owner: Alaska Energy Authority				Sampling Point: SW15_T315_10		
Investig	gator(s): EKJ, SCB		Landform (hill	side, terrac	e, hummocks etc.): Hillside		
Local re	elief (concave, convex, none): hummocky		Slope: 8.7				
	ion : Cook Inlet Mountains	Lat.:			Long.: Datum: WGS84		
_	p Unit Name:	Lutti			NWI classification: Upland		
	natic/hydrologic conditions on the site typical for this tir		ar2 Voc	● No ○			
Are Vo	egetation , Soil , or Hydrology s	significar naturally	ntly disturbed? problematic?	Are "N (If nee	(If no, explain in Remarks.)  ormal Circumstances" present? Yes ● No ○  oded, explain any answers in Remarks.)  s. transects, important features, etc.		
				1000110110	, transcotte, important routeres, etc.		
	, , , , , , , , , , , , , , , , , , ,		Is	the Sam	pled Area		
	Hydric Soil Present? Yes No •			ithin a W	-		
	Wetland Hydrology Present? Yes ● No C			tiiiii a vv	etiana:		
Rema	ırks:						
VECE	TATION Has assentific manner of plants 1:	-4 - II					
VEGE	<b>TATION</b> -Use scientific names of plants. Li	st all sp	becies in the	рют.	1		
		Absolut		Indicator	Dominance Test worksheet:		
	e Stratum	% Cove	er Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)		
1.			- 📙		Total Number of Dominant		
2.			- 📙		Species Across All Strata:3(B)		
3.			- 📙		Percent of dominant Species		
4.		_	- 📙		That Are OBL, FACW, or FAC: 100.0% (A/B)		
5.	Tatal Cavan	_	_		Prevalence Index worksheet:		
	Total Cover:		_		Total % Cover of: Multiply by:		
Sapi	ling/Shrub Stratum 50% of Total Cover:	0 20	% of Total Cover:	0	OBL Species <u>0</u> x 1 = <u>0</u>		
1.	Betula nana	_20	_	FAC	FACW Species 12 x 2 = 24		
2.	Salix pulchra	10	_	FACW	FAC Species 71.2 x 3 = 213.6		
	Salix barclayi	5	- 📙	FAC	FACU Species 4 x 4 = 16		
	Vaccinium uliginosum	5	_	FAC	UPL Species <u>0</u> x 5 = <u>0</u>		
	Spiraea stevenii	2	_	FACU	Column Totals: <u>87.2</u> (A) <u>253.6</u> (B)		
	Ribes triste	0.1		FAC	Prevalence Index = B/A = 2.908		
7.		0	-				
8.		0	- 📙		Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%		
9.		0	- 📙		<ul><li>✓ Dominance Test is &gt; 50%</li><li>✓ Prevalence Index is ≤3.0</li></ul>		
10.	Total Cover:						
Herl	b Stratum 50% of Total Cover: _2			: 8.42	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)		
1.	Calamagrostis canadensis	40	$\checkmark$	FAC	Problematic Hydrophytic Vegetation (Explain)		
	Chamaenerion angustifolium			FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
3.	Sanguisorba canadensis			FACW	be present, unless disturbed or problematic.		
4.	Cornus suecica	1		FAC	District of all and broath of this		
5.	Polemonium acutiflorum	0.1		FAC	Plot size (radius, or length x width)  Sm  Cover of Wetland Bryophytes		
6.		0			(Where applicable)		
7.		0			% Bare Ground		
8.		0			Total Cover of Bryophytes		
9.		0	_				
10.		0	_		Hydrophytic		
	Total Cover:				Vegetation		
	50% of Total Cover: 2	2.55 20	% of Total Cover:	9.02	Present? Tes S NO C		
Rema	arks: stand of mostly dead tall birch. understory don included in cover estimates				Present? Yes No Ch and willow. cover of dead birch approx 60-70%, not		

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SOIL Sampling Point: SW15\_T315\_10

1 TOTAL DECEMPAN	n: (Describe to	the denth ne	eded to docur	ment the ind	licator or conf	firm the ab	sence of indic	estors)		, rome. 01115_1515_10
Daneh		me depui ne Matrix	eucu io aocai	Hent the ma		ox Featu		duisj		
Depth (inches)	Color (mo	oist)	%	Color (m	oist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3			100						Fibric Organics	
3-5	7.5YR	4/2	100						Sandy Loam	tephra ?
5-8	5Y	3/2	50						Loamy Sand	
8-17	7.5YR	3/4	40	10YR	3/4	30		M	Sandy Loam	semiangular gravel
	10YR	4/4	30							3rd matrix color
17-21	10YR	2.5/2	100						Sandy Loam	semiangular gravel and cobbles
								-		
									-	
¹Type: C=Con	centration. D	=Depletion.	RM=Reduce	ed Matrix	<sup>2</sup> Location:	PL=Por	e Lining. RC	=Root Cha	annel. M=Matrix	
Hydric Soil In	dicators:			Indicate	ors for Pro	blemati	: Hydric S	oils:		
Histosol or					ca Color Cha		4		Alaska Gleyed Without H	ue 5Y or Redder
Histic Epipe	edon (A2)			Alask	ka Alpine sw	ales (TA	5)		Underlying Layer	
Hydrogen 9	Sulfide (A4)			Alask	ka Redox W	ith 2.5Y H	lue		Other (Explain in Remarl	ks)
Thick Dark	Surface (A12	)		3 One in	dicator of h	v droph d	ic vogotatio	n one prin	mary indicator of wetland h	ovdrology
Alaska Gley					appropriate					iyarology,
Alaska Red	` '	-\		4 Give d	etails of col	or change	e in Remark	(S		
Alaska Gley	ed Pores (A1	5)		0.70 0		0. 0				
Restrictive Laye	r (if present):									
Type:	`								Hydric Soil Present	? Yes ○ No •
Depth (inch	es):									
Remarks:										
no hydric soil in	dicators									
HYDROLO	_									
Wetland Hydr	ology Indica									cators (two or more are required)
Wetland Hydr Primary Indicat	ology Indicators (any one		)						✓ Water Stai	ined Leaves (B9)
Wetland Hydr Primary Indicat Surface W	ology Indicators (any one later (A1)		)		undation Vis		-	, , ,	✓ Water Stai ☐ Drainage F	ned Leaves (B9) Patterns (B10)
Wetland Hydr Primary Indicat Surface Will High Wate	ology Indica ors (any one ater (A1) r Table (A2)		)	☐ Spa	arsely Vege	tated Cor	-	, , ,	Water Stai Drainage F Oxidized R	ned Leaves (B9) Patterns (B10) chizospheres along Living Roots (C3)
Wetland Hydr Primary Indicat Surface W High Wate Saturation	ology Indica ors (any one ater (A1) r Table (A2) (A3)		)	Spa	arsely Vege rl Deposits	tated Cor (B15)	ncave Surfa	, , ,	Water Stai Drainage F Oxidized R Presence of	ned Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4)
Wetland Hydr Primary Indicat Surface W High Wate Saturation Water Mar	ology Indica ors (any one ater (A1) r Table (A2) (A3) ks (B1)		)	Spa	arsely Vege rl Deposits drogen Sulf	tated Cor (B15) ide Odor	ncave Surfac	, , ,	✓ Water Stai  □ Drainage F □ Oxidized R □ Presence c □ Salt Depos	rined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5)
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