WETLAND DETERMINATION DATA FORM - Alaska Region

Projec	t/Site: Susitna-Watana Hydroelectric Project	В	Borough/City:	Matanusk	xa-Susitna Borough Sampling Date: 05-Aug-13			
Applic	ant/Owner: Alaska Energy Authority				Sampling Point: SW13_T100_10			
nvest	gator(s): BAB		Landform (hill	side, terrac	ce, hummocks etc.): Hillside			
	relief (concave, convex, none): rolling		Slope:	% / 4.3				
	gion : Copper River Basin	l at ·	62.610187623		Long.: -147.415557364 Datum: NAD83			
			02.010107020) -1				
	ap Unit Name:		0 V	No ○	NWI classification: Upland			
Are \	/egetation ☐ , Soil ☐ , or Hydrology ☐ MARY OF FINDINGS - Attach site map sho	significantly naturally pr wing sam	y disturbed? roblematic?	Are "N (If nee	(If no, explain in Remarks.) Iormal Circumstances" present? Yes No Oeded, explain any answers in Remarks.) Iormal Circumstances" present? Yes No Oeded, explain any answers in Remarks.)			
	Hydrophytic Vegetation Present? Yes No		le	the Sam	ınled Δrea			
	Hydric Soil Present? Yes No		Is the Sampled Area within a Wetland? Yes ○ No ●					
	Wetland Hydrology Present? Yes No @arks: on a slope below large pond, small pond below.				ottaria i			
	ETATION - Use scientific names of plants. L	Absolute	Dominant	Indicator	Dominance Test worksheet:			
	e Stratum	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)			
1.	Picea glauca		✓	FACU	Total Number of Dominant			
2.					Species Across All Strata:5(B)			
3.					Percent of dominant Species			
4.					That Are OBL, FACW, or FAC: 80.0% (A/B)			
5.	Tatal Causa				Prevalence Index worksheet:			
_	Total Cover		of Total Cover		Total % Cover of: Multiply by:			
Sa	oling/Shrub Stratum 50% of Total Cover:	2.5 20%	of Total Cover	1	OBL Species <u>6</u> x1 = <u>6</u>			
1.	Betula nana	25	✓	FAC	FACW Species <u>16</u> x 2 = <u>32</u>			
2.	Vaccinium uliginosum		✓	FAC	FAC Species <u>95</u> x 3 = <u>285</u>			
3.	Dasiphora fruticosa	15		FAC	FACU Species 6 x 4 = 24			
4.	Salix pulchra			FACW	UPL Species <u>0</u> x 5 = <u>0</u>			
5.	Chamaedaphne calyculata	3		FACW	Column Totals: <u>123</u> (A) <u>347</u> (B)			
6.	Rhododendron groenlandicum	5		FAC	Prevalence Index = B/A =2.821_			
7.	Picea mariana			FACW				
8.					Hydrophytic Vegetation Indicators:			
9.					✓ Dominance Test is > 50%			
10.	Total Cover				✓ Prevalence Index is ≤3.0			
He	b Stratum 50% of Total Cover:		6 of Total Cover	15.6	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
1.	Equisetum arvense	5		FAC	Problematic Hydrophytic Vegetation (Explain)			
2.	Equisetum sylvaticum		✓	FAC	Indicators of hydric soil and wetland hydrology must			
3.	Calamagrostis canadensis	8		FAC	be present, unless disturbed or problematic.			
4.	Rumex arcticus			FAC	Plot size (radius, or length x width)			
5.	Eriophorum angustifolium			OBL	% Cover of Wetland Bryophytes			
6.	Chamaenerion angustifolium			FACU FACW	(Where applicable)			
7. 8.	Carex saxatilis Comarum palustre			OBL	% Bare Ground			
9.	Coroy Inlines	1		OBL	Total Cover of Bryophytes 8			
10.	Carex ionacea				Hydronbydia			
10.	Total Cover	÷ 40			Hydrophytic Vegetation			
	50% of Total Cover:	20 20%	of Total Cover:	88	Present? Yes ● No ○			

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SOIL Sampling Point: SW13_T100_10

Depth (inches) 0-7 7-11 7.5YR 11-18 7.5YR	oist) % 100 3/2 100 2.5/2 100	Color (moist)	<u>%</u> -	Type ¹	_Loc_2	Texture Fibric Organics	Remarks Fibric Organics
7-11 7.5YR	3/2 100					Fibric Organics	Fibric Organics
11-18 7.5YR	2.5/2 100					Silt Loam	rounded gravel and cobbles
						Loamy Sand	compacted rounded gravel and cobbles
						·	, -
1Turne C. Consentration D.	Darleties DM Dadu		- DI Dave I		Daat Cha	and M. Mahii	
¹ Type: C=Concentration. D: Hydric Soil Indicators:	=Depletion. RM=Redu	Indicators for Pr		_		nnei. M=Matrix	
Histosol or Histel (A1)		Alaska Color Ch	4	,	 	Alaska Gleyed Without H	ie 5V or Redder
Histic Epipedon (A2)		Alaska Alpine s			_	Underlying Layer	de 31 of Reddel
		Alaska Redox V	` '	.		Other (Explain in Remark	s)
☐ Hydrogen Sulfide (A4)☐ Thick Dark Surface (A12	`	Aluska Redox V	vidi 2.51 ride	•	·	()	-,
Alaska Gleyed (A13))	³ One indicator of	hydrophytic v	vegetation,	one prin	nary indicator of wetland h	ydrology,
Alaska Redox (A14)		and an appropriat	e landscape p	oosition mu	ust be pre	esent	
Alaska Gleyed Pores (A1	5)	⁴ Give details of co	olor change in	n Remarks			
Restrictive Layer (if present):							
Type:						Hydric Soil Present	? Yes ○ No •
Depth (inches):							
IYDROLOGY							
Wetland Hydrology Indica							cators (two or more are required)
Primary Indicators (any one	is sufficient)						ned Leaves (B9)
Surface Water (A1)			isible on Aeria				atterns (B10)
High Water Table (A2)			etated Conca	ve Surface	(B8)		hizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits	s (B15)				f Reduced Iron (C4)
Water Marks (B1)		☐ Hydrogen Su	-			☐ Salt Depos	
Sediment Deposits (B2)			Water Table (Stressed Plants (D1)
Drift Deposits (B3)		U Other (Explai	n in Remarks)			c Position (D2)
Algal Mat or Crust (B4)							uitard (D3)
Iron Deposits (B5)							raphic Relief (D4)
Surface Soil Cracks (B6)	1			1		FAC-neutra	I Test (D5)
Field Observations:	v						
Surface Water Present?	Yes O No O	Depth (inche	s):				
Water Table Present?	Yes O No 💿	Depth (inche	s):		Wetla	nd Hydrology Presen	t? Yes O No 💿
Saturation Present? (includes capillary fringe)	Yes O No 💿	Depth (inche	es):				
Describe Recorded Data (stre	eam gauge, monitor w	ell, aerial photos, pre	vious inspection	on) if availa	able:		
?emarks:							
Remarks:	ava abaamiad						
Remarks: no wetland hydrology indicat	ors observed						

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