WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project	Borough/City:	Matanuska-Susitna Borough Sampling D	Date: 03-Aug-13
Applicant/Owner: Alaska Energy Authority		Sampling Point:	SW13_T173_02
Investigator(s): BAB	Landform (hill	side, terrace, hummocks etc.): Hillside	
Local relief (concave, convex, none): convex	Slope: 36.3	% / 20.0 ° Elevation: 1207	
Subregion : Interior Alaska Mountains Lat.	63.160103419	08 Long.: -148.267855681	Datum: WGS84
Soil Map Unit Name:		NWI classification: U	pland
	ear? Yes intly disturbed? y problematic?	 No (If no, explain in Remarks.) Are "Normal Circumstances" present? (If needed, explain any answers in Remarkance) 	Yes 💿 No 🔿 arks.)
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point	locations, transects, important feature	ires, etc.
Hydrophytic Vegetation Present? Yes ○ No ● Hydric Soil Present? Yes ○ No ●		the Sampled Area	

within a Wetland?

Yes 🔾 No 🖲

Remarks:

Wetland Hydrology Present?

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

Yes 🔿 No 🖲

Tree Stratum % Cover Species? Status Number of Dominant Species 1. 0 0 0 0 0 0 2. 0 0 0 0 0 0 0 3. 0 0 0 0 0 0 0 0 5. 0	Absolute Dominant Indicator				Dominance Test worksheet:			
1. 0	Tre	e Stratum						
2. 0 0 0 Species Across AI Strata:: 8 (B) 3. 0 0 0 Percent of dominant Species That Are OBL, FACW, or FAC. 25.0% (AB) 5. 0 0 0 0 Percent of dominant Species That Are OBL, FACW, or FAC. 25.0% (AB) 7. 0 0 0 Call Cover: Call Cover: 0<	1.		0			That are OBL, FACW, or FAC: (A)		
3.	2							
4.								
5.								
Total Cover:								
Sapling/Shrub Stratum 50% of Total Cover: 0 20% of Total Cover: 0 1. Vaccinium uliginosum 0.1 V FAC FAC Species 0 2 0 2. 0 0 - FAC Species 0.2 x3 0.600 3. 0 0 - FAC Species 0.3 x4 1.200 4. 0 0 - FAC Species 0.3 x5 1.500 5. 0 0 - O - Column Totals: 0.8 (A) 3.300 (B) 6. 0 - 0 - - Prevalence Index = B/A = 4.125 8. 0 - 0 -<	5.			_				
1. Vaccinium uliginosum 0.1 ✓ FAC FACW Species 0 × 2 = 0 2. 0 □ FAC FACW Species 0, 2 × 3 = 0,600 3. 0 □ FACW Species 0, 2 × 3 = 0,600 4. 0 □ FACW Species 0, 3 × 4 = 1,200 4. 0 □ FACU Species 0,3 × 4 = 1,200 5. 0 □ □ FACU Species 0,3 × 4 = 1,200 5. 0 □ <td< td=""><td colspan="2"></td><td></td><td></td><td></td><td>Total % Cover of: Multiply by:</td></td<>						Total % Cover of: Multiply by:		
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2.	1.	Vaccinium uliginosum	0.	1 🖌	FAC	FACW Species <u>0</u> x 2 = <u>0</u>		
3. 0 0 0 0 0 0 0 4. 0 0 0 0 0 0 0 0 5. 0	2.	P				FAC Species <u>0.2</u> x 3 = <u>0.600</u>		
4. 0	3.					FACU Species 0.3 x 4 = 1.200		
5. 0			0			UPL Species 0.3 x 5 = 1.500		
6. 0	5.		0	-				
7. 0						Column rotals. 0.8 (A) 5.500 (B)		
8. 0 - Hydrophytic Vegetation Indicators: 9. 0 - Dominance Test is > 50% 10. 0 - Prevalence Index is ≤ 3.0 Total Cover: 0.1 Herb Stratum 50% of Total Cover: 0.05 20% of Total Cover: 0.02 1. Anthoxanthum monticola ssp. alpinum 0.1 Image: Colspan="2">FACU 2. Arnica lessingii 0.1 Image: Colspan="2">Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 3. Carex podocarpa 0.1 Image: Colspan="2">FACU 4. Anemone parviflora 0.1 Image: Colspan="2">FACU 5. Poa glauca 0.1 Image: Colspan="2">FACU 6. Antennaria alpina 0.1 Image: Colspan="2">FACU 7. Carex atrofusca 0.1 Image: Colspan="2">FACU 9. 0 - - 10. - 0 - - 0 - - - - 7. Carex podocarpa 0.1 Image: Colspan="2">FACU 8. Boykinia richardsonii						Prevalence Index = B/A =		
9. 0						Hudzenhutie Vecetation Indicators		
10.								
Total Cover: 0.1 Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 1. Anthoxanthum monticola ssp. alpinum 0.1 Image: FACU indication in the second state of the se								
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3. Carex podocarpa 0.1 Image: FAC point of the present, unless disturbed or problematic. 4. Anemone parviflora 0.1 Image: FAC point of the present, unless disturbed or problematic. 5. Poa glauca 0.1 Image: FAC point of the present, unless disturbed or problematic. 6. Antennaria alpina 0.1 Image: FAC point of the present, unless disturbed or problematic. 7. Carex atrofusca 0.1 Image: FAC point of the present, unless disturbed or problematic. 8. Boykinia richardsonii 0.1 Image: FAC point of the present, unless disturbed or problematic. 9. 0.1 Image: FAC point of the present, unless disturbed or problematic. 9. 0.1 Image: FAC point of the present, unless disturbed or problematic. 9. 0.1 Image: FAC point of the present, unless disturbed or problematic. 10. 0 Image: FAC point of the present, unless disturbed or problematic. 11. Image: FAC point of the present of the present, unless disturbed or problematic. Image: FAC point of the present of the	2.	Arnica lessingii	0.		UPL	¹ Indicators of hydric soil and wetland hydrology must		
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5. Poa glauca 0.1 Image: constraint of the state of the sta	•••	Anemone narviflora	0		FACU			
6. Antennaria alpina 0.1 Image: FACU of the second s		Pop dauca	0		UPL			
7. Carex atrofusca 0.1 FACW % Bare Ground 30 8. Boykinia richardsonii 0.1 V UPL Total Cover of Bryophytes 70 9. 0 0 0 0 10 Hydrophytic 70 10. Total Cover: 0.80 0.160 Yes No No	•••	Antonnorio alnino	0		FACU			
8. Boykinia richardsonii 0.1 UPL Total Cover of Bryophytes 70 9. 0 0 10.1 UPL Total Cover of Bryophytes 70 10. Total Cover: 0.80 0.80 Vegetation Present? Yes No 50% of Total Cover: 0.400 20% of Total Cover: 0.160 Yes No No	•••	· · · · · · · · · · · · · · · · · · ·		_ L _	FACW			
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50% of Total Cover: <u>0.400</u> 20% of Total Cover: <u>0.160</u> Present? Yes Vo	10.							
					0.160	Present? Yes No •		

	on: (Describe to the depth Matrix	needed to docur		onfirm the ab		ators)		
Depth (inches)	Color (moist)	%	Color (moist)		Type ¹	<u>Loc</u> ²	Texture	Remarks
							·	
¹ Type: C=Con	centration. D=Depleti	on. RM=Reduc	ed Matrix ² Locatio	n: PL=Por	e Lining. RO	C=Root Cha	annel. M=Matrix	
Hydric Soil Ir	dicators:		Indicators for P	roblemati	c Hydric S	oils: ³		
Histosol or	Histel (A1)		Alaska Color C	hange (TA	4) ⁴		Alaska Gleyed Without Hu	e 5Y or Redder
Histic Epipe	edon (A2)		Alaska Alpine	•	,	_	Underlying Layer	
	Sulfide (A4)		Alaska Redox	With 2.5Y I	Hue	L	Other (Explain in Remarks)
_	Surface (A12)		³ One indicator of	f hvdrophv	tic vegetatio	on, one prir	mary indicator of wetland hy	droloav.
Alaska Gle	. ,		and an appropria					
Alaska Red	()		⁴ Give details of o	olor chang	e in Remarl	(C		
Alaska Gle	ed Pores (A15)			olor chang		6		
Restrictive Laye	r (if present):							\sim
Type:							Hydric Soil Present?	Yes 🔿 No 🖲
Depth (inch	es):							
Remarks:								
no hydric soil in	dicators observed. no	pit in talus fiel	d					
IYDROLO	-							
	ology Indicators:							tors (two or more are required)
	ors (any one is sufficient	ent)						ed Leaves (B9)
Surface W	. ,		Inundation \		-		Drainage Pa	
	r Table (A2)		Sparsely Veg		ncave Surfa	ce (B8)		zospheres along Living Roots (C3)
Saturation			Marl Deposit		()		_	Reduced Iron (C4)
Water Mar	. ,		Hydrogen Su		• •		Salt Deposit	()
_	Deposits (B2)		Dry-Season					Stressed Plants (D1)
Drift Depo	. ,		Other (Expla	iin in Rema	irks)			Position (D2)
	or Crust (B4)						Shallow Aqu	
								aphic Relief (D4)
Surface Sc	oil Cracks (B6)						FAC-neutral	lest (D5)

Field Observations:

(includes capillary fringe)

 $_{\rm Yes} \odot \ _{\rm No} \odot$ Depth (inches): Surface Water Present? Yes 🔿 No 🖲 Wetland Hydrology Present? Water Table Present? Depth (inches): Saturation Present? Yes 🔿 No 🖲 Depth (inches):

Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:

Remarks:

no wetland hydrology indicators observed

Yes 🔘 No 🖲