WETLAND DETERMINATION DATA FORM - Alaska Region

Projec	t/Site: Susitna-Watana Hydroelectric Project		Boroug	h/City:	Matanusk	a-Susitna Borough Sampling Date: 07-Aug-13
Applica	ant/Owner: Alaska Energy Authority					Sampling Point: SW13_T178_06
Investi	gator(s): BAB		Landf	orm (hills	side, terrac	e, hummocks etc.): Bench
Local	relief (concave, convex, none): concave		_ Slope	0.0	% / <u>0.0</u>	Elevation: 987
Subre	gion : Interior Alaska Mountains	Lat.:	63.05	1451921		Long.:148.321092129
Soil Ma	ap Unit Name:					NWI classification: PSS1/EM1B
Are \	matic/hydrologic conditions on the site typical for t /egetation	significar naturally showing sa	ntly distu problem	rbed? atic?	(If nee	(If no, explain in Remarks.) formal Circumstances" present? Yes ● No ○ fided, explain any answers in Remarks.) fig., transects, important features, etc.
Rem	Hydric Soil Present? Yes ● N	No O No O No O Dugh center			the Sam thin a W	pled Area etland? Yes ● No ○
VEGI	ETATION -Use scientific names of plant	s Tist all si	necies	in the i	nlot	
	ose sciencine names of plant	•			<u>'</u>	Dominance Test worksheet:
Tre	e Stratum	Absolut % Cove		ninant ecies?	Indicator Status	Number of Dominant Species
1.						That are OBL, FACW, or FAC:5(A)
2.						Total Number of Dominant Species Across All Strata: 5 (B)
3.			_			
4.			_			Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
5.			_			Prevalence Index worksheet:
	Total C	over: 0				Total % Cover of: Multiply by:
Sap	oling/Shrub Stratum 50% of Total Cover:	020	0% of Tot	al Cover:	0	OBL Species 28.1 x 1 = 28.1
1	Salix pulchra	4			FACW	FACW Species 5.2 x 2 = 10.4
2.	Coliv reticulate		_		FAC	FAC Species 15 x 3 = 45
3.	Andrewood and italia (IANA)		_	✓	OBL	FACU Species 0 x 4 = 0
4.	Vaccinium uliginosum		_	✓	FAC	UPL Species 0 x 5 = 0
5.		_	_			Column Totals: 48.3 (A) 83.5 (B)
6.						
7.						Prevalence Index = B/A = 1.729
8.		0				Hydrophytic Vegetation Indicators:
9.		0				✓ Dominance Test is > 50%
10.		0				✓ Prevalence Index is ≤3.0
Hei	Total C rb Stratum 50% of Total Cover			tal Cover:	5.4	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1.	Eriophorum angustifolium	5	_	✓	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2.			_	V	OBL	¹ Indicators of hydric soil and wetland hydrology must
	Carey aquatilis	5	_		OBL	be present, unless disturbed or problematic.
3.					FACW	1
4.	Eriophorum vaginatum		_			Plot size (radius, or length x width) <u>10m</u>
4. 5.	Eriophorum vaginatum Juncus castaneus	0.	1		FACW	% Cover of Wetland Bryophytes
4. 5. 6.	Eriophorum vaginatum Juncus castaneus Juncus triglumis	0.	1 1		FACW	% Cover of Wetland Bryophytes (Where applicable)
4. 5. 6. 7.	Eriophorum vaginatum Juncus castaneus Juncus triglumis Carex tenuiflora	0.:	1 1 1		FACW	% Cover of Wetland Bryophytes (Where applicable) % Bare Ground
4. 5. 6. 7. 8.	Eriophorum vaginatum Juncus castaneus Juncus triglumis Carex tenuiflora	0.: 0.: 0.:	1 1 1 1		FACW	% Cover of Wetland Bryophytes (Where applicable)
4. 5. 6. 7. 8. 9.	Eriophorum vaginatum Juncus castaneus Juncus triglumis Carex tenuiflora	0.: 0.: 0.:	1 1 1 1		FACW	% Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes
4. 5. 6. 7. 8. 9.	Eriophorum vaginatum Juncus castaneus Juncus triglumis Carex tenuiflora	0. 0. 0. 0	1 1 1 1 —		FACW	% Cover of Wetland Bryophytes (Where applicable) % Bare Ground
4. 5. 6. 7. 8. 9.	Eriophorum vaginatum Juncus castaneus Juncus triglumis Carex tenuiflora	0. 0. 0. 0 0 0 0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	al Cover:	FACW FACW OBL	% Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes

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SOIL Sampling Point: SW13_T178_06

(inches)	Color (m	oist)	%	Color (moist)	%	Type 1 Lo	. 2	Texture	Re	marks
0-1	COIOI (III	Oisty	100	Color (Illoist)		<u> </u>	Fibric O			
1-8			100				Hemic C)rganics	w/lots of roots. a 1-	3 inch laver of sand.
8-20		4/1	100				Coarse	Sand	-	ndecomposed roots ar
0-20		7/1					Codisc	Sunu	w any graver, and ur	idecomposed roots at
Type: C=Cor	ncentration. D	=Depletion	. RM=Reduce	d Matrix ² Locatio	n: PL=Pore L	ining. RC=Root	Channel. M=	Matrix		
lydric Soil I	ndicators:			Indicators for P	roblematic F	lydric Soils: ³				
Histosol or	Histel (A1)			Alaska Color C	hange (TA4)			Gleyed Without H	lue 5Y or Redder	
Histic Epip	edon (A2)			Alaska Alpine s	swales (TA5)			ring Layer		
Hydrogen	Sulfide (A4)			Alaska Redox \	With 2.5Y Hue	9	☐ Other (Explain in Remarl	ks)	
Thick Dark	Surface (A12	2)		³ One indicator of	f bydrophytic	vogotation one	primary indi	eator of wotland b	avdrology.	
☐ Alaska Gle				and an appropria				Lator or wettand i	iyurology,	
☐ Alaska Red	` '			4 Give details of o	olor change i	n Remarks				
	yed Pores (A	15)			olor change ii	Tremano				
estrictive Laye	er (if present)	:								
Type:							Hvdri	c Soil Present	:? Yes 💿	No O
Described to the								e son i resent		
		h organics	s 5y 4/1. mak	es a u shape. look	s like an old c	hannel .				
emarks:		h organics	is 5y 4/1. mak	es a u shape. look	s like an old c	hannel .				
emarks: ndy layer tha	t runs throug		is 5y 4/1. mak	es a u shape. look	s like an old c	hannel .				
emarks: indy layer that YDROLO Vetland Hydi	t runs throug GY rology Indic	ators:		es a u shape. look	s like an old c	hannel .		Secondary Indi	icators (two or more	
YDROLO Yetland Hydirimary Indica	GY rology Indictors (any one	ators:						Secondary Indi Water Stai	icators (two or more ined Leaves (B9)	
YDROLO YDROLO YEtland Hydrimary Indica Surface W	GY rology Indictors (any one /ater (A1)	ators:		☐ Inundation \	/isible on Aeri	al Imagery (B7		Secondary Indi Water Stai Drainage R	icators (two or more ined Leaves (B9) Patterns (B10)	e are required)
YDROLO Yetland Hydrimary Indica Surface W	GY rology Indictors (any one /ater (A1) er Table (A2)	ators:		☐ Inundation \	/isible on Aeri getated Conca			Secondary Indi Water Stai Drainage F	icators (two or more ined Leaves (B9) Patterns (B10) thizospheres along	e are required) Living Roots (C3)
YDROLO Yetland Hydi rimary Indica Surface W High Wate Saturation	GY rology Indictors (any one /ater (A1) er Table (A2)	ators:		Inundation \ Sparsely Veg Marl Deposit	/isible on Aeri getated Conca ss (B15)	al Imagery (B7 ve Surface (B8		Secondary Indi Water Stai Drainage F Oxidized R Presence of	icators (two or more ined Leaves (B9) Patterns (B10) thizospheres along of Reduced Iron (C4	e are required) Living Roots (C3)
YDROLO YDROLO Yetland Hydi rimary Indica Surface W High Water Saturation Water Ma	GY rology Indictors (any one later (A1) er Table (A2) n (A3) rks (B1)	ators: is sufficien		☐ Inundation \ ☐ Sparsely Vec ☐ Marl Deposit ☑ Hydrogen Su	/isible on Aeri getated Conca cs (B15) ulfide Odor (C	al Imagery (B7 Ive Surface (B8		Secondary Indi Water Stai Drainage F Oxidized R Presence C Salt Depos	icators (two or more ined Leaves (B9) Patterns (B10) thizospheres along of Reduced Iron (C4 sits (C5)	e are required) Living Roots (C3)
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