WETLAND DETERMINATION DATA FORM - Alaska Region

Projec	t/Site: Susitna-Watana Hydroelectric Project	I	Borough/City:	Matanusk	ca-Susitna Borough Sampling Date: 20-Aug-15
Applic	ant/Owner: Alaska Energy Authority				Sampling Point: SW15_T300_03
	igator(s): BAB		Landform (hills	side, terrac	ce, hummocks etc.): Upper Slope
Local	relief (concave, convex, none): hummocky		Slope: 21.2	% / 12.0	0 ° Elevation:
	gion : Interior Alaska Mountains	Lat.:	· ·		Long.: Datum: WGS84
		Lut			
	ap Unit Name:			<u> </u>	NWI classification: PSS1B
	matic/hydrologic conditions on the site typical for this ti	•		No ○	(If no, explain in Remarks.) Iormal Circumstances" present? Yes ● No ○
			ly disturbed?		ionnal oli cametanoco procont.
Are \	/egetation ☐ , Soil ☐ , or Hydrology ☐	naturally p	roblematic?	(If nee	eded, explain any answers in Remarks.)
SUM	MARY OF FINDINGS - Attach site map show	wing sar	mpling point	locations	s, transects, important features, etc.
	Hydrophytic Vegetation Present? Yes No C)			
	Hydric Soil Present? Yes ● No C)	Is	the Sam	npled Area
	Wetland Hydrology Present? Yes No C		wi	thin a W	/etland? Yes ● No ○
Dom			<u> </u>		
Keiii	arks: upper slope below a slope break with a lot a wetl	anus abov	re		
/FGI	ETATION - Use scientific names of plants. Li	ict all ca	ocios in tho	nlot	
V L G	ETATION - Ose scientific flames of plants. Li	ist all sp	ecies iii tiie į	ρισι.	Bouring Task words back
_		Absolute			Dominance Test worksheet: Number of Dominant Species
1.	ee Stratum	% Cover	Species?	Status	That are OBL, FACW, or FAC: 4 (A)
					Total Number of Dominant
2.					Species Across All Strata: 4 (B)
3.					Percent of dominant Species
4.					That Are OBL, FACW, or FAC: 100.0% (A/B)
5.	Tatal Carren	_			Prevalence Index worksheet:
_	Total Cover		-		Total % Cover of: Multiply by:
Sap	bling/Shrub Stratum 50% of Total Cover:	0 20%	6 of Total Cover:	0	OBL Species 0 x 1 = 0
1.	Betula glandulosa	35	✓	FAC	FACW Species <u>27</u> x 2 = <u>54</u>
2.	Picea mariana	15	<u>~</u>	FACW	FAC Species 78 x 3 = 234
3.	Rhododendron tomentosum	7		FACW	FACU Species 2.1 x 4 = 8.4
4.	Vaccinium uliginosum	5		FAC	UPL Species
5.	Vaccinium vitis-idaea	5		FAC	Column Totals: <u>107.1</u> (A) <u>296.4</u> (B)
6.	Salix pulchra			FACW	Prevalence Index = B/A = 2.768
7.	Betula occidentalis	2		FAC	Trevalence mack - B/A
8.	Spiraea stevenii	2		FACU	Hydrophytic Vegetation Indicators:
9.	Salix alaxensis	2		FAC	✓ Dominance Test is > 50%
10.	Rosa acicularis	0.1		FACU	✓ Prevalence Index is ≤3.0
	Total Cover			. 45.00	Morphological Adaptations (Provide supporting data in
	rb Stratum 50% of Total Cover::				Remarks or on a separate sheet)
1.	Carex bigelowii		✓	FAC	Problematic Hydrophytic Vegetation (Explain)
2.	Equisetum sylvaticum			FACIA	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		2	\sqsubseteq	FACW	be present, unless disturbed of problematic.
3.	Petasites frigidus		1 1		
3. 4.	Petasites frigidus Calamagrostis canadensis	1		FAC	Plot size (radius, or length x width) 10m
3. 4. 5.	Petasites frigidus Calamagrostis canadensis Rubus chamaemorus	1		FACW	% Cover of Wetland Bryophytes
3. 4. 5. 6.	Petasites frigidus Calamagrostis canadensis Rubus chamaemorus	1 0			% Cover of Wetland Bryophytes (Where applicable)
3. 4. 5. 6. 7.	Petasites frigidus Calamagrostis canadensis Rubus chamaemorus	1 1 0 0			% Cover of Wetland Bryophytes (Where applicable) % Bare Ground
3. 4. 5. 6. 7. 8.	Petasites frigidus Calamagrostis canadensis Rubus chamaemorus	1 1 0 0			% Cover of Wetland Bryophytes (Where applicable)
3. 4. 5. 6. 7. 8. 9.	Petasites frigidus Calamagrostis canadensis Rubus chamaemorus	1 0 0 0			% Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes 70
3. 4. 5. 6. 7. 8. 9.	Petasites frigidus Calamagrostis canadensis Rubus chamaemorus	1 0 0 0 0			% Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes Hydrophytic
3. 4. 5. 6. 7. 8. 9.	Petasites frigidus Calamagrostis canadensis Rubus chamaemorus	1 0 0 0 0 0 0 32	-	FACW	% Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes 70

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SOIL Sampling Point: SW15_T300_03

Depth	Matrix			Redo	ox Featu	res			
, i \	(moist)	%	Color (n	noist)	%	Type ¹	Loc ²	Texture	Remarks
0-3								Peat	Oi
3-6								Mucky Peat	Oe
6-8								Muck	Oa
8-18 10Y	4/1	75	7.5YR	4/6	15	С	PL	Loam	with cryoturbated organics and fine to medium grav
									-
Type: C=Concentration		DM-Pedu	and Matrix	2 Location:	DI - Dore	- Lining PC	.————— `=Poot Cha	nnel M-Matrix	
		. KM – Reduc						Tillei. M-Mauix	
lydric Soil Indicators				t ors for Pro ska Color Cha			_	l	- FV - B - LI
☐ Histosol or Histel (A	•		_	ska Color Cha ska Alpine sw			V	Alaska Gleyed Without H Underlying Layer	ue 5Y or Redder
Histic Epipedon (A2)			_	ska Redox Wi				Other (Explain in Remark	ks)
	•		□ Alas	Na Neuox Wi	1011 2.31 1	iue	_	, carer (Explain in Nemal)	
Alaska Gleyed (A13)	•							nary indicator of wetland h	nydrology,
Alaska Redox (A14)			and an	appropriate	landscap	e position i	must be pre	esent	
Alaska Gleyed Pores	(A15)		4 Give	details of col	or change	e in Remark	(S		
estrictive Layer (if prese	nt):								• • • •
Type:								Hydric Soil Present	? Yes • No O
Donth (inches)									
								ng season. Glacial till depo nafrost, due to very coars	sits are not homogeneous. Pockets e till at depth.
emarks: ery cold soil. Seasonal f									
emarks: ery cold soil. Seasonal f									
emarks: ery cold soil. Seasonal f finer textured soil mar	tles can agrado							nafrost, due to very coars	
emarks: ery cold soil. Seasonal f finer textured soil mar	tles can agrado	e ice better						nafrost, due to very coars	e till at depth.
emarks: ery cold soil. Seasonal finer textured soil mar YDROLOGY //etland Hydrology Intrimary Indicators (any Surface Water (A1)	dicators:	e ice better	than areas		r textured	d till. Assum	ne non-pern		e till at depth. cators (two or more are required)
POROLOGY / Vetland Hydrology In imary Indicators (any Surface Water (A1) High Water Table (A)	dicators:	e ice better	than areas	s with coarse	sible on A	d till. Assum	ne non-perr	Secondary Indi Secondary Stai Drainage I Oxidized R	cators (two or more are required) ned Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3)
YDROLOGY Vetland Hydrology Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3)	dicators:	e ice better	In Sp	undation Visparsely Vegetarl Deposits	sible on Artated Con (B15)	d till. Assum	ne non-perr		cators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4)
PROLOGY Vetland Hydrology Interimary Indicators (any High Water Table (A) Saturation (A3) Water Marks (B1)	dicators: one is sufficien	e ice better	In Sp	undation Vis parsely Vegel arl Deposits ydrogen Sulfi	sible on Artated Con (B15) ide Odor	d till. Assum	ne non-perr	Secondary Indi Secondary Indi Water Stai Drainage I Oxidized R Presence o	cators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5)
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Primary Indicators (any Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1)	dicators: one is sufficien (A2)	e ice better	In Sp Hy	undation Visoarsely Vegetarl Deposits ydrogen Sulfivy-Season W	sible on Adatated Con (B15) ide Odor ater Table	erial Image cave Surfac (C1) e (C2)	ne non-perr	Secondary Indi Water Stai Drainage I Oxidized R Presence o Salt Depos Stunted or Geomorph Shallow Ad	cators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3 of Reduced Iron (C4) sits (C5) Stressed Plants (D1) ic Position (D2) quitard (D3)
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