WETLAND DETERMINATION DATA FORM - Alaska Region

Projec	ct/Site: Susitna-Watana Hydroelectric Project		Borough/City:	Denali Bo	orough Sampling Date: 07-Aug-12
Applic	ant/Owner: Alaska Energy Authority				Sampling Point: SW12_T15_06
	igator(s): CTS, EKJ		Landform (hi	lside, terrac	e, hummocks etc.): Valley bottom
	relief (concave, convex, none): flat		- Slope:		3 ° Elevation: 751
	gion : Interior Alaska Mountains	l at ·	 63.36299820		Long.: -148.664755266 Datum: NAD83
	ap Unit Name:	Lutti	03.30299020		NWI classification: PSS1C
	-		0 Voo	● No ○	
	imatic/hydrologic conditions on the site typical for this t $\!$	•	ar? res tly disturbed?		(If no, explain in Remarks.) Iormal Circumstances" present? Yes ● No ○
		-	problematic?		iornal oli daniotarioco present:
					eded, explain any answers in Remarks.)
SUM	MARY OF FINDINGS - Attach site map sho	owing sa	mpling point	locations	s, transects, important features, etc.
	Hydrophytic Vegetation Present? Yes No	\supset		41 0	mlad Ansa
	Hydric Soil Present? Yes No	\supset			pled Area etland? Yes No
	Wetland Hydrology Present? Yes No	<u> </u>	W	ithin a W	etland? fes © No C
Rem	arks: Slows near small but deep channelized stream in	n valley bo	ttom		
VEG	ETATION - Use scientific names of plants. L	ist all sp	ecies in the	plot.	
	,	Absolut		Indicator	Dominance Test worksheet:
Tre	ee Stratum	% Cove		Status	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
1.		0	_		That are OBL, FACW, or FAC:3(A) Total Number of Dominant
2.		0			Species Across All Strata:3(B)
3.		0	_ 📙		Percent of dominant Species
4.		0			That Are OBL, FACW, or FAC: 100.0% (A/B)
5.		0	_		Prevalence Index worksheet:
	Total Cove		_		Total % Cover of: Multiply by:
Sa	pling/Shrub Stratum 50% of Total Cover:	0 20	% of Total Cover	:0	OBL Species <u>20</u> x 1 = <u>20</u>
1.	Salix pulchra	35	✓	FACW	FACW Species <u>35.1</u> x 2 = <u>70.2</u>
2.	Vaccinium uliginosum	15	_	FAC	FAC Species <u>26.2</u> x 3 = <u>78.60</u>
3.	Salix barclayi	5	_ 📙	FAC	FACU Species 0 x 4 = 0
4.				FAC	UPL Species <u>0</u> x 5 = <u>0</u>
5.					Column Totals: <u>81.3</u> (A) <u>168.8</u> (B)
6.					Prevalence Index = B/A = 2.076
7.			-		
8.			-		Hydrophytic Vegetation Indicators: Dominance Test is > 50%
9.		0	- =		✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0
10.	Total Cove				
He	rb Stratum_ 50% of Total Cover: _			r: <u>11.02</u>	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
1.		20	✓	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2.	·			FAC	¹ Indicators of hydric soil and wetland hydrology must
	Colomographia considensia			FAC	be present, unless disturbed or problematic.
3.	Calamag. Collo Canadonolo			FACW	
3. 4.	Carex membranacea	0.1		171011	Plot size (radius or length y width)
				FAC	Plot size (radius, or length x width)
4. 5.	Carex membranacea	0.1			Plot size (radius, or length x width) 10m % Cover of Wetland Bryophytes 15 (Where applicable)
4. 5. 6. 7.	Carex membranacea Carex bigelowii	0.1			% Cover of Wetland Bryophytes 15
4. 5. 6. 7. 8.	Carex membranacea Carex bigelowii	0.1 0 0			% Cover of Wetland Bryophytes 15 (Where applicable)
4. 5. 6. 7. 8. 9.	Carex membranacea Carex bigelowii	0.1 0 0 0			% Cover of Wetland Bryophytes (Where applicable) % Bare Ground 0
4. 5. 6. 7. 8. 9.	Carex membranacea Carex bigelowii	0.1 0 0 0 0			% Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes Hydrophytic
4. 5. 6. 7. 8. 9.	Carex membranacea Carex bigelowii	0.1 0 0 0 0 0 0		FAC	% Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes

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SOIL Sampling Point: SW12_T15_06

Danish					Redo	ox i cutu	103			
Depth (inches)	Color (m	noist)	%	Color (n	noist)	%	Type ¹	Loc ²	Texture	Remarks
0-2			100						Fibric Organics	
2-5	5Y	3/2	80	10YR	4/6	10	С	PL	Fine Loamy Silt	10% roots
5-7	5Y	2.5/1	90						Fine Loamy Silt	10% roots
7-8	5YR	2.5/1	65	7.5YR	3/4	15	C		Silt Loam	buried organics, 20% roots
8-15	5Y	3/1	60	N	2.5/1	20	D	PL	Sandy Loam	10% 5Y3/1 C/P, 10% roots
		· · · ·			·					
	-									
Type: C=Coi	ncentration. [=Depletion	າ. RM=Redu	ced Matrix	² Location:	PL=Pore	e Lining. RC	=Root Cha	nnel. M=Matrix	
ydric Soil I	indicators:			Indicat	ors for Pro	blematio	Hydric So	oils: ³		
Histosol o	r Histel (A1)			Alas	ka Color Cha	ange (TA4	4 l)		Alaska Gleyed Withou	t Hue 5Y or Redder
Histic Epip	pedon (A2)			Alas	ka Alpine sw	vales (TA5	5)		Underlying Layer	
Hydrogen	Sulfide (A4)			Alas	ka Redox W	ith 2.5Y F	lue		Other (Explain in Rem	narks)
Thick Darl	k Surface (A1	2)		3 One i	ndicator of k	wdronhyt	ic vegetatio	n one prin	nary indicator of wetlar	nd hydrology
_	eyed (A13)				appropriate					ia flyarology,
Alaska Re	, ,			4 Give	details of col	or change	in Remark	S		
」Alaska Gle	eyed Pores (A	15)								
strictive Laye	er (if present)):								
									Hydric Soil Prese	ent? Yes 💿 No 🔾
Type:										
Type: Depth (inclemarks:	hes):									
Depth (incl	,									
Depth (inclemarks:	O GY	-atore:							Soonday	indicators (huo or more are required)
Depth (inclemarks:	OGY Irology Indic									indicators (two or more are required) Stained Leaves (B9)
Depth (incleanable) Permarks: POROLO Portland Hyderimary Indica	OGY Irology Indicators (any one		ıt)		undation Vis	sible on A	erial Image	ry (B7)	Water 9	Stained Leaves (B9)
Depth (incleaning property) CDROLO etland Hyd rimary Indica Surface V	OGY Irology Indicators (any one	e is sufficier	nt)		undation Vis		-	, , ,	Water S	Stained Leaves (B9) ge Patterns (B10)
Popth (included) Popth (inclu	OGY Irology Indicators (any one Vater (A1) er Table (A2)	e is sufficier	nt)	☐ Sp	arsely Vege	tated Con	-	, , ,	Water S Drainag Oxidize	Stained Leaves (B9) ge Patterns (B10)
Popth (included) Popth (inclu	OGY Irology India ators (any one Vater (A1) rer Table (A2) n (A3)	e is sufficier	nt)	☐ Sp		tated Con (B15)	cave Surfa	, , ,	Water S Drainag Oxidize Presence	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C
Pepth (inclemarks: PPROLO etland Hyd rimary Indica Surface W High Wat Saturation Water Ma	OGY Irology India ators (any one Vater (A1) rer Table (A2) n (A3)	e is sufficier	nt)	☐ Sp ☐ Ma ☐ Hy	oarsely Vege arl Deposits	tated Con (B15) îde Odor	cave Surfac	, , ,	Water S Drainag Oxidize Presenc Salt De	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C ce of Reduced Iron (C4)
Pepth (inclemarks: YDROLO YD	PGY Irology Indicators (any one Vater (A1) er Table (A2) n (A3) arks (B1) E Deposits (B2)	e is sufficier	nt)	Sp Sp Ma	oarsely Vege arl Deposits ydrogen Sulf	tated Con (B15) ide Odor ater Table	cave Surfac (C1) e (C2)	, , ,	Water S Drainag Oxidize Presenc Salt De Stunted	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C te of Reduced Iron (C4) posits (C5)
Pepth (incleanable) Permarks: YDROLO Yetland Hyd rimary Indica You Surface W High Wate You Saturation Water Ma Sediment Drift Depo	PGY Irology Indicators (any one Vater (A1) er Table (A2) n (A3) arks (B1) E Deposits (B2)	e is sufficier	nt)	Sp Sp Ma	oarsely Vege arl Deposits ydrogen Sulf ry-Season W	tated Con (B15) ide Odor 'ater Table	cave Surfac (C1) e (C2)	, , ,	Water S Drainag Oxidize Presence Salt De Stunted Geomo	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C te of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1)
Pepth (incleanable) Permarks: YDROLO Yetland Hyd rimary Indica You Surface W High Wate You Saturation Water Ma Sediment Drift Depo	PGY Irology Indicators (any one Vater (A1) Per Table (A2) In (A3) Parks (B1) Popposits (B2) Sosits (B3) For Crust (B4)	e is sufficier	nt)	Sp Sp Ma	oarsely Vege arl Deposits ydrogen Sulf ry-Season W	tated Con (B15) ide Odor 'ater Table	cave Surfac (C1) e (C2)	, , ,	Water S Drainag Oxidize Presend Salt De Stunted Geomo Shallow	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C te of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2)
POROLO Petland Hyd rimary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo	PGY Irology Indicators (any one Vater (A1) Per Table (A2) In (A3) Parks (B1) Popposits (B2) Sosits (B3) For Crust (B4)	e is sufficier	nt)	Sp Sp Ma	oarsely Vege arl Deposits ydrogen Sulf ry-Season W	tated Con (B15) ide Odor 'ater Table	cave Surfac (C1) e (C2)	, , ,	Water S Drainag Oxidize Present Salt De Stunted Geomo Shallow Microto	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (Cite of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) u Aquitard (D3)
Popth (incleanable) Popth (in	OGY Irology Indicators (any one Vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) Soil Cracks (B6)	e is sufficier)		Sp Sp Ma	oarsely Vege arl Deposits ydrogen Sulf ry-Season W	tated Con (B15) ide Odor 'ater Table	cave Surfac (C1) e (C2)	, , ,	Water S Drainag Oxidize Present Salt De Stunted Geomo Shallow Microto	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (Coe of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) v Aquitard (D3) pographic Relief (D4)
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Pepth (incleanable) Properties Pr	PIGY Irology Indicators (any one Vater (A1) Per Table (A2) In (A3) Parks (B1) Poposits (B2) Posits (B3) Por Crust (B4) Posits (B5) Posits (B5) Posits (B6) Posits (B7) Posits (B8) Present?	e is sufficier) (5) Yes		Sp Ma	oarsely Vege arl Deposits ydrogen Sulf ry-Season W ther (Explain	tated Con (B15) ide Odor later Tabla in Remai	cave Surfac (C1) e (C2)	ce (B8)	Water S Drainag Oxidize Present Salt De Stunted Geomo Shallow Microto	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (Common terms of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rrphic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)
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Pepth (incleanable) Permarks: PYDROLO Petland Hyd Pet	Por Crust (B4) costs (B5) coll Cracks (B6) cresent?	Yes (Yes (Yes (No ○No ○No ○No ○	Sp Ma	parsely Vegerarl Deposits ydrogen Sulfry-Season Wither (Explain epth (inchesepth (inchesep	tated Con (B15) ride Odor later Table in Remai	(C1) e (C2) rks)	Wetlan	Water S Drainag Oxidize Presenc Salt De Stuntec Geomo Shallow Microto	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (Common terms of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rrphic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)
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