WETLAND DETERMINATION DATA FORM - Alaska Region

Projec	t/Site: Susitna-Watana Hydroelectric Project	1	Borough/City:	Denali Bo	rough Sampling Date: 06-Aug-12			
Applica	ant/Owner: Alaska Energy Authority				Sampling Point: SW12_T16_03			
	gator(s): SLI, KMK		Landform (hill	andform (hillside, terrace, hummocks etc.): Gulch or Gully				
	relief (concave, convex, none): concave		. Slope:	% / 13.				
	gion : Interior Alaska Mountains	l at ·	63.428914863		Long.: -148.592118553 Datum: NAD83			
		Lat	03.420914003	01				
	ap Unit Name:		- \	<u> </u>	NWI classification: Upland			
	matic/hydrologic conditions on the site typical for this ti /egetation \square , Soil \square , or Hydrology \square	•	r? Yes ly disturbed?	● No ○ Are "N	(If no, explain in Remarks.) lormal Circumstances" present? Yes ● No ○			
Are \	/egetation \square , Soil \square , or Hydrology \square	naturally p	roblematic?	(If nee	eded, explain any answers in Remarks.)			
SUM	MARY OF FINDINGS - Attach site map sho	wing sar	mpling point	locations	s, transects, important features, etc.			
	Hydrophytic Vegetation Present? Yes No C)		41	1.14			
	Hydric Soil Present? Yes O No ()	Is the Sampled Area within a Wetland? Yes ○ No ●					
	Wetland Hydrology Present? Yes O No 🖲		Wi	thin a W	etland? res Uno U			
Rem	arks:							
	ETATION - Use scientific names of plants. Li	Absolute	Dominant	Indicator	Dominance Test worksheet:			
1.	e Stratum	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:6 (A)			
	-		. 📙	-	Total Number of Dominant			
2.			-		Species Across All Strata:(B)			
3. 4.			-		Percent of dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)			
5.		0	-		That Are OBL, FACW, OF FAC. 00.0% (A/B)			
5.	Total Cover	0	. \square		Prevalence Index worksheet:			
C			- 6 of Total Cover:	0	Total % Cover of: Multiply by:			
Sap	oling/Shrub Stratum 50% of Total Cover:		o or rotal cover.	0	OBL Species <u>0</u> x 1 = <u>0</u>			
1.	Salix reticulata	3	- 4	FAC	FACW Species <u>5</u> x 2 = <u>10</u>			
2.	Vaccinium uliginosum			FAC	FACUS paging 39 x 3 = 117			
3.	Empetrum nigrum	10	-	FAC	FACU Species 35 x 4 = 140			
4.	Dryas ajanensis			UPL	UPL Species <u>10</u> x 5 = <u>50</u>			
5.	Rhododendron tomentosum	3	- 📙	FACU	Column Totals: <u>89</u> (A) <u>317</u> (B)			
6.	Arctous alpinus	3	-	FACU	Prevalence Index = B/A =3.562_			
	Salix arctica	25	. 🔻	FACU				
	Loiseleuria procumbens		-	FACU FACW	Hydrophytic Vegetation Indicators: ✓ Dominance Test is > 50%			
	Salix pulchra Vaccinium vitis-idaea		-	FAC	Prevalence Index is ≤ 3.0			
10.	Total Cover			TAC				
Hei	b Stratum_ 50% of Total Cover:	, , ,	- % of Total Cover	: 15.6	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)			
1.	Anthoxanthum monticola ssp. alpinum	3	~	UPL	Problematic Hydrophytic Vegetation ¹ (Explain)			
2.	Carex microchaeta		<u>✓</u>	FAC	¹ Indicators of hydric soil and wetland hydrology must			
	Distarta alumana		✓	FACU	be present, unless disturbed or problematic.			
3.	bistoria piuriosa		✓	FAC				
3. 4.	Luzula nivalia	1			Diot cizo (radius, or longth wouldth)			
	· ·		✓	FAC	Plot size (radius, or length x width) 10m 10m			
4.	Luzula nivalis	1	V	FAC FAC	Plot size (radius, or length x width) % Cover of Wetland Bryophytes (Where applicable)			
4. 5.	Luzula nivalis Festuca altaica	1	✓		% Cover of Wetland Bryophytes			
4. 5. 6.	Luzula nivalis Festuca altaica Trisetum spicatum	1 1	V	FAC	% Cover of Wetland Bryophytes (Where applicable)			
4. 5. 6. 7.	Luzula nivalis Festuca altaica Trisetum spicatum Luzula spicata	1 1 1	V	FACU	% Cover of Wetland Bryophytes (Where applicable) % Bare Ground			
4. 5. 6. 7. 8.	Luzula nivalis Festuca altaica Trisetum spicatum Luzula spicata Poa arctica	1 1 1 1 0	V	FACU	% Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes Hydrophytic			
4. 5. 6. 7. 8. 9.	Luzula nivalis Festuca altaica Trisetum spicatum Luzula spicata Poa arctica Total Cover	1 1 1 1 0 0		FAC FACU FAC	% Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes 30 30			

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SOIL Sampling Point: SW12_T16_03

Due file December	i (Dih - t- t						-+		,
		he depth no latrix	edea to uoci	ment the indicator or co	nfirm the at dox Feati		ators)		
Depth (inches)	Color (moi			Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-1	Color (moi	Stj		Color (moist)		Туре	LOC	Hemic Organics	Remarks
		2/2							
1-6	5YR	3/3	85					Silt Loam	15% angular gravels and cobbles
6-7	7.5YR	3/3	85					Silt Loam	15% angular gravels
7-16	5YR	3/3	60					Silt Loam	40% angular gravels and cobbles
								p-	
¹Type: C=Co	ncentration. D=	Depletion	. RM=Redu	ced Matrix ² Location	n: PL=Poi	e Lining. RC	=Root Cha	nnel. M=Matrix	
Hydric Soil I	ndicators:			Indicators for Pi	oblemati	c Hvdric Sc	oils: ³		
	r Histel (A1)			Alaska Color C		4		Alaska Gleyed Without H	ue 5V or Redder
	pedon (A2)			Alaska Alpine s		-		Underlying Layer	de 51 of Redder
	Sulfide (A4)			Alaska Redox V	•	•		Other (Explain in Remarl	(S)
	k Surface (A12)					1100		•	•
	eyed (A13)							nary indicator of wetland h	nydrology,
Alaska Re	, , ,			and an appropria	te landsca	pe position r	nust be pre	esent	
	eyed Pores (A15	١		4 Give details of c	olor chang	je in Remark	S		
	` `	,							
Restrictive Laye	er (if present):								
Type:								Hydric Soil Present	? Yes ○ No •
Depth (incl	hes):								
Remarks:									
no hydric soil ir	ndicators								
HYDROLO	·CV								
	rology Indicat	orei						Cacandary Indi	cators (two or more are required)
_	ators (any one is		+)						ned Leaves (B9)
		Summer	ι)	Inundation \	ricible on /	Sorial Image	/D7\		Patterns (B10)
☐ Surface Water (A1)☐ High Water Table (A2)				☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)				_	hizospheres along Living Roots (C3)
Saturation (A3)				Sparsely Vegetated Concave Surrace (B8) Marl Deposits (B15)					of Reduced Iron (C4)
Water Ma				Hydrogen Su	. ,	(C1)		Salt Depos	` '
	Deposits (B2)			Dry-Season					Stressed Plants (D1)
Drift Depo	. ,			Other (Expla					ic Position (D2)
	or Crust (B4)			☐ Other (Expla	III III NCIII	irks)			quitard (D3)
Iron Depo									graphic Relief (D4)
_	ioil Cracks (B6)								al Test (D5)
Field Observa									in rest (D3)
Surface Wate		Yes C	No •	Depth (inche).				
) No •		•		''' -tle	1 Hardwalamy Duggan	it? Yes O No 💿
Water Table F				Depth (inche	es):		Wetiai	nd Hydrology Presen	it? Yes O No O
Saturation Pro (includes capi		Yes C	No 💿	Depth (inche	es):				
		031100	monitor w	all parial photos pro	days inch	action) if ava	··labla:		
Describe Recoi	aea Data (Stree	im gauge,	, Monitor w	ell, aerial photos, pre	vious irisp	ection) ii ava	illabie:		
D ulsas									
Remarks:	t to the disease								
no wetiana nyo	drology indicato	rs							

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