## WETLAND DETERMINATION DATA FORM - Alaska Region

ct/Site: Susitna-Watana Hydroelectric Project		Borough/City:	Matanusk	a-Susitna Borough Sampling Date: 29-Aug-15
cant/Owner: Alaska Energy Authority				Sampling Point: SW15_T344_02
		Landform (hills	side, terrac	
relief (concave, convex, none): hummocky		Slope: 17.6	% / 10.0	0 ° Elevation:
gion : Interior Alaska Mountains	Lat.:			Long.: Datum: WGS84
				NWI classification: Upland
•	me of ve	ar? Yes	No ○	(If no, explain in Remarks.)
	-			lormal Circumstances" present? Yes  No
	•	-		eded, explain any answers in Remarks.)
,	-			
		mpling point	locations	s, transects, important features, etc.
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narks:				
FTATION - Use scientific names of plants Li	ct all cr	necies in the	nlot	
ETATION - 03e scientific flames of plants. Li	st all sp	recies in the p	piot.	Dominance Test worksheet:
oo Stratum			Indicator	Number of Dominant Species
	70 0010		<u> </u>	That are OBL, FACW, or FAC:3 (A)
				Total Number of Dominant Species Across All Strata: 3 (B)
		- 🗀		Percent of dominant Species
		_		That Are OBL, FACW, or FAC: 100.0% (A/B)
				Prevalence Index worksheet:
Total Cover	:	_		Total % Cover of: Multiply by:
pling/Shrub Stratum 50% of Total Cover:	0 20	% of Total Cover:	0	OBL Species0 x 1 =0
Salix pulchra	10		FACW	FACW Species 13 x 2 = 26
Betula nana	35	<b>✓</b>	FAC	FAC Species <u>91</u> x 3 = <u>273</u>
	25	✓	FAC	FACU Species 9 x 4 = 36
Vaccinium vitis-idaea	2	_ 🗆	FAC	UPL Species <u>0</u> x 5 = <u>0</u>
Empetrum nigrum	10	-	FAC	Column Totals:113 (A)335 (B)
		- 📙		Prevalence Index = B/A =2.965
<u> </u>	3			
			FACU	
Cassiope tetragona	5	_ 	FACU	Hydrophytic Vegetation Indicators:
Salix reticulata	2			Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%
Oallin astianilata	0		FACU	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0
Salix reticulata	2 0 95		FACU FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%
Salix reticulata  Total Cover	2 0 : 95 47.5 20	0% of Total Cover:	FACU FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤3.0  Morphological Adaptations (Provide supporting data in
Salix reticulata  Total Covers  Solve Stratum  50% of Total Covers	2 0 : 95 47.5 20	0% of Total Cover:	FACU FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤ 3.0  ☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  ☐ Problematic Hydrophytic Vegetation (Explain)  1 Indicators of hydric soil and wetland hydrology must
Salix reticulata  Total Covers  srb Stratum  Carex bigelowii	2 0 : 95 47.5 20 15	0% of Total Cover:	FACU FAC : 19 FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤ 3.0  Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation (Explain)
Total Cover:  srb Stratum  Carex bigelowii  Carex scirpoidea  Poa arctica  Saussurea angustifolia	2 0 : 95 47.5 20 15 1 1	0% of Total Cover:	FACU FAC  : 19 FAC FACU	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤ 3.0  ☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  ☐ Problematic Hydrophytic Vegetation (Explain)  1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Cover:  Salix reticulata  Total Cover:  50% of Total Cover:  Carex bigelowii  Carex scirpoidea  Poa arctica  Saussurea angustifolia	2 0 95 47.5 20 15 1 1 1	0% of Total Cover:	FACU FAC  : 19 FAC FACU FACU FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤ 3.0  ☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  ☐ Problematic Hydrophytic Vegetation (Explain)  1 Indicators of hydric soil and wetland hydrology must
Total Covers 50% of Total Covers Salex scirpoidea Poa arctica Saussurea angustifolia	2 0 95 447.5 20 15 1 1 1 0	0% of Total Cover:	FACU FAC  : 19 FAC FACU FACU FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤ 3.0
Total Cover srb Stratum  Carex bigelowii  Carex scirpoidea Poa arctica  Saussurea angustifolia	2 0 95 447.5 20 15 1 1 0 0	0% of Total Cover:	FACU FAC  : 19 FAC FACU FACU FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤ 3.0  ☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  ☐ Problematic Hydrophytic Vegetation (Explain)  ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Plot size (radius, or length x width)  % Cover of Wetland Bryophytes (Where applicable)  % Bare Ground
Total Cover:  srb Stratum  Carex bigelowii  Carex scirpoidea  Poa arctica  Saussurea angustifolia	2 0 95 47.5 20 15 1 1 0 0	0% of Total Cover:	FACU FAC  : 19 FAC FACU FACU FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤ 3.0
Total Cover:  srb Stratum  Carex bigelowii  Carex scirpoidea  Poa arctica  Saussurea angustifolia	2 0 95 47.5 20 15 1 1 0 0	0% of Total Cover:	FACU FAC  : 19 FAC FACU FACU FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤ 3.0  ☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  ☐ Problematic Hydrophytic Vegetation (Explain)  ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Plot size (radius, or length x width)  % Cover of Wetland Bryophytes (Where applicable)  % Bare Ground  _ 5  Total Cover of Bryophytes
Total Cover:  srb Stratum  Carex bigelowii  Carex scirpoidea  Poa arctica  Saussurea angustifolia	2 0 95 47.5 20 15 1 1 0 0 0	0% of Total Cover:  -	FACU FAC  : 19 FAC FACU FACU FAC	Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%  ✓ Prevalence Index is ≤ 3.0  ☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  ☐ Problematic Hydrophytic Vegetation (Explain)  1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Plot size (radius, or length x width)  % Cover of Wetland Bryophytes (Where applicable)  % Bare Ground  5
	relief (concave, convex, none): hummocky gion: Interior Alaska Mountains ap Unit Name: imatic/hydrologic conditions on the site typical for this ti Vegetation  , Soil  , or Hydrology   Vegetation  , Soil  , or Hydrology   Wegetation   , Soil  , or Hydrology   MARY OF FINDINGS - Attach site map show Hydrophytic Vegetation Present?  Yes  No   Hydric Soil Present?  Yes  No   Wetland Hydrology Present?  Yes  No   arks:  ETATION - Use scientific names of plants. Li  Bee Stratum  Total Cover:  Salix pulchra  Betula nana Vaccinium uliginosum Vaccinium vitis-idaea  Emportrum pigrum	relief (concave, convex, none): hummocky gion: Interior Alaska Mountains	igator(s): JGK	igator(s): JGK

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SOIL Sampling Point: SW15\_T344\_02

			4.00				c ·				
	ion: (Describe to t	he depth nee <b>1atrix</b>	eded to aocu	ment the ina		firm the ab		ators)			
Depth (inches)	Color (moi	st)	%	Color (m	oist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-2									Hemic Organics		
2-4									Sapric Organics		
4-6	10YR	3/2							Loam		
6-11	5Y	3/2	60	10YR	3/6	40	С	PL	Sandy Loam		
11-14	10YR	3/3	100						Sandy Loam		
14-15	5Y	4/2	100						Loam with gravel		
15-19	10YR	4/6	50						Loam with gravel	Blended with 2nd matrix 10YR 3/2	
1T.max C-Car		Donlation	DM_Doduc	and Matrix	2 Lagation	DI - Dor	a Lining DC	`_Doot Cha	uppel M_Matrix		
		Depletion.	KM=Keduc						nnel. M=Matrix		
Hydric Soil Ir					ors for Pro		4	DIIS:	1		
l	r Histel (A1)				ka Color Cha		-		Alaska Gleyed Without Hu Underlying Layer	ue 5Y or Redder	
Histic Epip	` '			☐ Alaska Alpine swales (TA5) ☐ Alaska Redox With 2.5Y Hue					Other (Explain in Remarks)		
	Sulfide (A4)			∟ Alask	ka Redox W	IUI 2.5Y F	nue		Other (Explain in Remark	3)	
	Surface (A12)			<sup>3</sup> One in	ndicator of h	nydrophyt	tic vegetatio	n, one prin	nary indicator of wetland h	ydrology,	
Alaska Gle					appropriate					,	
Alaska Red	ox (A14) yed Pores (A15	`		4 Give d	letails of col	or change	e in Remark	(S			
	•	)									
Restrictive Laye	er (if present):								Under Call Brosont	? Yes○ No •	
Type: Depth (inch	nes):								Hydric Soil Present	? Yes∪ NO ©	
Remarks:	,										
Subangular cob	bles throughou	it. No nyari	C SOII ITIQICA	ators.							
HYDROLO	GY										
HYDROLO Wetland Hydr		tors:							Secondary Indic	cators (two or more are required)_	
Wetland Hydr										cators (two or more are required)ned Leaves (B9)	
Wetland Hydr	rology Indications (any one is				undation Vis	sible on A	erial Image	ry (B7)	Water Stair		
Wetland Hydr Primary Indicat	rology Indications (any one is				undation Vis		-	, , ,	Water Stair Drainage P	ned Leaves (B9)	
Wetland Hydr Primary Indicat	rology Indicators (any one is deter (A1) er Table (A2)			☐ Spa		tated Cor	-	, , ,	Water Stair Drainage P Oxidized RI	ned Leaves (B9) latterns (B10)	
Wetland Hydr Primary Indicat Surface W High Wate	rology Indicators (any one is later (A1) er Table (A2) in (A3)			Spa	arsely Vege	tated Cor (B15)	ncave Surfa	, , ,	Water Stair Drainage P Oxidized RI	ned Leaves (B9) atterns (B10) hizospheres along Living Roots (C3) f Reduced Iron (C4)	
Wetland Hydri Primary Indicat Surface W High Wate Saturation	rology Indicators (any one is later (A1) er Table (A2) in (A3)			Spa	arsely Vege orl Deposits	tated Cor (B15) ide Odor	ncave Surfac	, , ,	Water Stair Drainage P Oxidized RI Presence o Salt Deposi	ned Leaves (B9) atterns (B10) hizospheres along Living Roots (C3) f Reduced Iron (C4)	
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