WETLAND DETERMINATION DATA FORM - Alaska Region

Proje	ct/Site: Susitna-Watana Hydroelectric Project		Borough/City	Matanusk	ca-Susitna Borough Sampling Date: 04-Jul-13	
Applicant/Owner: Alaska Energy Authority Investigator(s): WAD, BAB Lar				-	Sampling Point: SW13_T137_02	
				indform (hillside, terrace, hummocks etc.): Channel (active)		
	relief (concave, convex, none): concave		Slope:	% / 10.4	-	
Subre	egion : Southcentral Alaska	Lat.:	62.8259221	32	Long.: -148.865288139 Datum: NAD83	
	lap Unit Name:		02.0200221	02	NWI classification: R3UBH	
	imatic/hydrologic conditions on the site typical for this tin	mo of vo	or? Ve	es No	(If no, explain in Remarks.)	
		-	tly disturbed?		Iormal Circumstances" present? Yes No	
		-	problematic?		eded, explain any answers in Remarks.)	
	, , ,			•		
SUM	MARY OF FINDINGS - Attach site map show		mpling poi	nt locations	s, transects, important features, etc.	
	Hydrophytic Vegetation Present? Yes No)		a tha Cam	wlad Area	
	Hydric Soil Present? Yes ● No ○			Is the Sampled Area within a Wetland? Yes ● No ○		
	Wetland Hydrology Present? Yes ● No C		<u> </u>		Chana.	
Ren	narks: small permanently flooded creek, 1 to many chan	nels. veg	section desc	bes bank veg	etation. frog observed at waterbody downslope.	
VEG	ETATION - Use scientific names of plants. Li	st all sp	ecies in th	e plot.		
		Absolut		t Indicator	Dominance Test worksheet:	
	ee Stratum	% Cove			Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)	
1.		0			Total Number of Dominant	
2.		0	_ 📙		Species Across All Strata:3(B)	
3.					Percent of dominant Species	
4.		0	_		That Are OBL, FACW, or FAC: 100.0% (A/B)	
5.		0	_		Prevalence Index worksheet:	
	Total Cover:		_		Total % Cover of: Multiply by:	
Sa	pling/Shrub Stratum 50% of Total Cover:	0 20	% of Total Cov	er: <u>0</u>	OBL Species x 1 =0	
1.	Salix pulchra	35	✓	FACW	FACW Species <u>50</u> x 2 = <u>100</u>	
2.	Salix barclayi	_ 25	✓	FAC	FAC Species <u>56</u> x 3 = <u>168</u>	
3.	Salix reticulata	15	_	FAC	FACU Species 2 x 4 = 8	
4.		5	_	FAC	UPL Species <u>0</u> x 5 = <u>0</u>	
5.					Column Totals: <u>108</u> (A) <u>276</u> (B)	
6.					Prevalence Index = B/A = 2.556	
7.			-			
8.			-		Hydrophytic Vegetation Indicators:	
9.		0	- =		✓ Dominance Test is > 50%	
10.	Total Cover:				✓ Prevalence Index is ≤3.0	
Не	erb Stratum_ 50% of Total Cover:			ver: 16	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)	
1.		15	✓	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)	
	U			FAC	Indicators of hydric soil and wetland hydrology must	
2.	Rhodiola integrifolia		- =		be present, unless disturbed or problematic.	
	Rhodiola integrifolia Carex bigelowii			FAC	be present, unless disturbed of problematic.	
2.	Carex bigelowii	5	- 📙	FACU		
2. 3.	Carex bigelowii Bistorta plumosa	5			Plot size (radius, or length x width) 10m length	
2. 3. 4. 5.	Carex bigelowii Bistorta plumosa	5 2 1		FACU		
2. 3. 4. 5. 6.	Carex bigelowii Bistorta plumosa Festuca altaica	5 2 1 0		FACU	Plot size (radius, or length x width) 10m length % Cover of Wetland Bryophytes	
2. 3. 4. 5. 6. 7.	Carex bigelowii Bistorta plumosa Festuca altaica	5 2 1 0		FACU	Plot size (radius, or length x width) 10m length % Cover of Wetland Bryophytes (Where applicable)	
2. 3. 4. 5. 6. 7. 8.	Carex bigelowii Bistorta plumosa Festuca altaica	5 2 1 0 0		FACU	Plot size (radius, or length x width) % Cover of Wetland Bryophytes (Where applicable) % Bare Ground	
2. 3. 4. 5. 6. 7. 8. 9.	Carex bigelowii Bistorta plumosa Festuca altaica	5 2 1 0 0 0 0		FACU	Plot size (radius, or length x width) % Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes Hydrophytic	
2. 3. 4. 5. 6. 7. 8. 9.	Carex bigelowii Bistorta plumosa Festuca altaica	5 2 1 0 0 0 0 0		FACU FAC	Plot size (radius, or length x width) % Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes	

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SOIL Sampling Point: SW13_T137_02 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators) **Redox Features** Depth <u>Loc</u> 2 (inches) Color (moist) Color (moist) Type ¹ ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix ² Location: PL=Pore Lining, RC=Root Channel, M=Matrix Indicators for Problematic Hydric Soils: **Hydric Soil Indicators:** Histosol or Histel (A1) Alaska Color Change (TA4) ☐ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer Alaska Alpine swales (TA5) Histic Epipedon (A2) Alaska Redox With 2.5Y Hue ✓ Other (Explain in Remarks) Hydrogen Sulfide (A4) Thick Dark Surface (A12) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, Alaska Gleved (A13) and an appropriate landscape position must be present Alaska Redox (A14) ⁴ Give details of color change in Remarks Alaska Gleyed Pores (A15) Restrictive Layer (if present): Yes ● No ○ Type: **Hydric Soil Present?** Depth (inches): Remarks: active channel, assume hydric soil **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (two or more are required) Primary Indicators (any one is sufficient) Water Stained Leaves (B9) ✓ Surface Water (A1) Drainage Patterns (B10) ☐ Inundation Visible on Aerial Imagery (B7) High Water Table (A2) Oxidized Rhizospheres along Living Roots (C3) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Presence of Reduced Iron (C4) Marl Deposits (B15) Water Marks (B1) Salt Deposits (C5) ☐ Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Dry-Season Water Table (C2) Stunted or Stressed Plants (D1) Drift Deposits (B3) Other (Explain in Remarks) Geomorphic Position (D2) Algal Mat or Crust (B4) Shallow Aquitard (D3) Iron Deposits (B5) Microtopographic Relief (D4) Surface Soil Cracks (B6) ✓ FAC-neutral Test (D5) **Field Observations:** Yes ● No ○ Surface Water Present? Depth (inches): 6 Yes O No • Yes ● No ○ Water Table Present? Wetland Hydrology Present? Depth (inches): Saturation Present? Yes ○ No ● Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:

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Remarks: