WETLAND DETERMINATION DATA FORM - Alaska Region

Projec	t/Site: Susitna-Watana Hydroelectric Project	E	Borough/City:	Matanusk	xa-Susitna Borough Sampling Date: 07-Jul-13
Applic	ant/Owner: Alaska Energy Authority				Sampling Point: SW13_T134_05
	gator(s): WAD, BAB		Landform (hil	lside, terrac	ce, hummocks etc.): Channel (active)
Local	relief (concave, convex, none): concave		Slope:		S ° Elevation: 834
	gion : Southcentral Alaska	l at ·	62.68846309	_	Long.: -148.74064219 Datum: NAD83
	ap Unit Name:		02.00040303	17	
			0 V	Na ○	NWI classification: PSS1E
	matic/hydrologic conditions on the site typical for this ti	•		● No ○	(If no, explain in Remarks.) Iormal Circumstances" present? Yes ● No ○
		•	y disturbed?		tormar or our occurred procent.
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 san	npling point	locations	s, transects, important features, etc.
	Hydrophytic Vegetation Present? Yes No C)			
	Hydric Soil Present? Yes No C		Is	the Sam	pled Area
	Wetland Hydrology Present? Yes ● No ○		wi	ithin a W	/etland? Yes ● No ○
Rem	arks:		<u> </u>		
/EGI	ETATION -Use scientific names of plants. Li	ist all spe		•	Dominance Test worksheet:
	e Stratum	% Cover	Species?	Status	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	oling/Shrub Stratum 50% of Total Cover:	0 20%	of Total Cover	0	OBL Species 8 x 1 = 8
1.	Salix barclayi	20	✓	FAC	FACW Species 21.1 x 2 = 42.20
2.	Salix pulchra	- 20	✓	FACW	FAC Species 21 x 3 = 63
3.		0			FACU Species 0 x 4 = 0
4.		0			UPL Species0 x 5 =0
5.					Column Totals:50.1 (A)113.2 (B)
6.		0			
7.		0			Prevalence Index = B/A = 2.259
8.		0			Hydrophytic Vegetation Indicators:
9.		0			✓ Dominance Test is > 50%
10.		0			✓ Prevalence Index is ≤3.0
Не	Total Cover: 50% of Total Cover:		% of Total Cover	r: <u>8</u>	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1.	Carex aquatilis	. 8	~	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2.	Rhodiola integrifolia	1		FAC	¹ Indicators of hydric soil and wetland hydrology must
3.	Viola palustris			FACW	be present, unless disturbed or problematic.
	Sanguisorba canadensis			FACW	Plot size (radius, or length x width)
5.					% Cover of Wetland Bryophytes
					(Where applicable)
7.					% Bare Ground
					Total Cover of Bryophytes
8.					1
8. 9.					
8. 9.		0			Hydrophytic
8. 9.		0 10.1	of Total Cover	2.02	Hydrophytic Vegetation Present? Yes No

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SOIL Sampling Point: SW13_T134_05

Type: C=Concentration. D=Depletion. RM=Reduced Matrix Type: C=Concentration. D=Depletion. RM=Reduced Matrix Indicators for Problematic Hydric So Hydric Soil Indicators:	, one primar	Alaska Gleyed Without Hue 5Y or Redder Underlying Layer Other (Explain in Remarks) ary indicator of wetland hydrology,
Indicators for Problematic Hydric So Histosol or Histel (A1)	, one primar	Alaska Gleyed Without Hue 5Y or Redder Underlying Layer Other (Explain in Remarks) ary indicator of wetland hydrology, sent
Indicators for Problematic Hydric So Histosol or Histel (A1) Histic Epipedon (A2) Hydrogen Sulfide (A4) Alaska Alpine swales (TA5) Hydrogen Sulfide (A1) Alaska Redox With 2.5Y Hue Thick Dark Surface (A12) Alaska Gleyed (A13) Alaska Redox (A14) Alaska Gleyed Pores (A15) Strictive Layer (if present): Type: Depth (inches): marks: sume hydric soil due to hydrophytic vegetation and inundation. TOROLOGY etland Hydrology Indicators: imary Indicators (any one is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Indicators for Problematic Hydric So Alaska Color Change (TA4) Alaska Alpine swales (TA5) Alaska Redox With 2.5Y Hue Tokal Alaska Redox With 2.5Y Hue	, one primar	Alaska Gleyed Without Hue 5Y or Redder Underlying Layer Other (Explain in Remarks) ary indicator of wetland hydrology, sent
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Alaska Redox (A14) Alaska Gleyed Pores (A15) **Give details of color change in Remarks* estrictive Layer (if present): Type: Depth (inches): **emarks: **ssume hydric soil due to hydrophytic vegetation and inundation.* **YDROLOGY** **Jetland Hydrology Indicators: **Drimary Indicators (any one is sufficient)* **Surface Water (A1) High Water Table (A2) Saturation (A3) Marl Deposits (B15) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) **Give details of color change in Remarks* **Inundation Visible on Aerial Imager* **Surface Water (A1) Alaska Gleyed Pores (A15) **Inundation Visible on Aerial Imager* **Sparsely Vegetated Concave Surface* **Sparsely Vegetated Concave Surface* **Drive Marks (B15) **Drive Season Water Table (C2) Drift Deposits (B3) **Other (Explain in Remarks)		
estrictive Layer (if present): Type: Depth (inches): emarks: ssume hydric soil due to hydrophytic vegetation and inundation. YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Other (Explain in Remarks)	ŀ	Hydric Soil Present? Yes [●] No ○
Type: Depth (inches): Pemarks: sume hydric soil due to hydrophytic vegetation and inundation. Pydrology Petland Hydrology Indicators: rimary Indicators (any one is sufficient) ✓ Surface Water (A1) — High Water Table (A2) — Sparsely Vegetated Concave Surface — Saturation (A3) — Water Marks (B1) — Water Marks (B1) — Sediment Deposits (B2) — Dry-Season Water Table (C2) — Drift Deposits (B3) — Other (Explain in Remarks)	ŀ	Hydric Soil Present? Yes ● No ○
Depth (inches): Pemarks: Sume hydric soil due to hydrophytic vegetation and inundation. PYDROLOGY Vetland Hydrology Indicators: Inundation Visible on Aerial Imager High Water (A1)	ŀ	Hydric Soil Present? Yes ● No ○
PATENTIAL PROLOGY PETIAN Hydrology Indicators: Primary Indicators (any one is sufficient) ✓ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) PATENTIAL PROLOGY Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)		
yDROLOGY /etland Hydrology Indicators: rimary Indicators (any one is sufficient) ✓ Surface Water (A1) — High Water Table (A2) — Saturation (A3) — Water Marks (B1) — Water Marks (B1) — Sediment Deposits (B2) — Drift Deposits (B3) // DROLOGY Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface — Marl Deposits (B15) — Hydrogen Sulfide Odor (C1) — Dry-Season Water Table (C2) — Other (Explain in Remarks)		
Vetland Hydrology Indicators: Primary Indicators (any one is sufficient) ✓ Surface Water (A1) ✓ Inundation Visible on Aerial Imager High Water Table (A2) Sparsely Vegetated Concave Surface Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Dry-Season Water Table (C2) Drift Deposits (B3) Other (Explain in Remarks)		
rimary Indicators (any one is sufficient) ✓ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) ✓ Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)		
✓ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) ✓ Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)		Secondary Indicators (two or more are required)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	 -	Water Stained Leaves (B9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	` '	✓ Drainage Patterns (B10)
Water Marks (B1)	(B8)	Oxidized Rhizospheres along Living Roots (C3Presence of Reduced Iron (C4)
Sediment Deposits (B2) Dry-Season Water Table (C2) Drift Deposits (B3) Other (Explain in Remarks)		Salt Deposits (C5)
Drift Deposits (B3) Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
		Geomorphic Position (D2)
		Shallow Aquitard (D3)
Iron Deposits (B5)		✓ Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-neutral Test (D5)
ield Observations:		
Surface Water Present? Yes No Depth (inches): 5		
Water Table Present? Yes O No O Depth (inches):		d Hydrology Present? Yes No
Saturation Present? Vec No Poorth (inches):	Wetland	
includes capillary fringe) Yes No Depth (inches):	Wetland	
escribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if avai	Wetland	
emarks:		

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