WETLAND DETERMINATION DATA FORM - Alaska Region

Project/	Site: Susitna-Watana Hydroelectric Project	Bo	orough/City:	Matanusk	a-Susitna Borough Sampling Date: 04-Aug-13
Applica	nt/Owner: Alaska Energy Authority				Sampling Point: SW13_T133_05
Investig		l	Landform (hill	side, terrac	e, hummocks etc.): depression
Local re	lief (concave, convex, none): concave		Slope:	%/ 1.6	Elevation: 750
Subreai	on : Interior Alaska Mountains	Lat e	62.91479957		Long.: -148.072745086 Datum: NAD83
-	o Unit Name:		52.91479957	15	
	2				NWI classification: PSS1/EM1B
	natic/hydrologic conditions on the site typical for this ti	•		• No O	(If no, explain in Remarks.) ormal Circumstances" present? Yes ● No ○
		• •	disturbed?		
Are Ve	egetation 🗋 , Soil 🔄 , or Hydrology 🛄 i	naturally pro	oblematic?	(If nee	ded, explain any answers in Remarks.)
SUMN	IARY OF FINDINGS - Attach site map show	wing sam	pling point	locations	, transects, important features, etc.
	Hydrophytic Vegetation Present? Yes $ullet$ No $iglocolom$)			
	Hydric Soil Present? Yes Ves No C		ls	the Sam	pled Area
	Wetland Hydrology Present? Yes No C		wi	ithin a W	etland? Yes $ullet$ No $igloodow$
	rks: low open willow swamp.	/	1		
VEGE	TATION - Use scientific names of plants. Li	st all spe	cies in the	plot.	
		Absolute	Dominant	Indicator	Dominance Test worksheet:
	Stratum	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
1.					Total Number of Dominant
2.		0			Species Across All Strata:3_ (B)
3.		0			Percent of dominant Species
4.					That Are OBL, FACW, or FAC: (A/B)
5.		0			Prevalence Index worksheet:
	Total Cover				Total % Cover of: Multiply by:
Sapl	ing/Shrub Stratum 50% of Total Cover:	0 20%	of Total Cover:		OBL Species <u>60</u> x 1 = <u>60</u>
1.	Salix pulchra	65	\checkmark	FACW	FACW Species <u>65</u> x 2 = <u>130</u>
2.	Vaccinium uliginosum	5		FAC	FAC Species <u>8</u> x 3 = <u>24</u>
3.		0			FACU Species x 4 =
4.					UPL Species x 5 =
5.		0			Column Totals: <u>133</u> (A) <u>214</u> (B)
6.					
7.		0			Prevalence Index = B/A = <u>1.609</u>
8.		0			Hydrophytic Vegetation Indicators:
9.		0			✓ Dominance Test is > 50%
10.		0			✓ Prevalence Index is \leq 3.0
	Total Cover				Morphological Adaptations ¹ (Provide supporting data in
Herb	Stratum 50% of Total Cover:	35 20%	of Total Cover	. 14	Remarks or on a separate sheet)
1.	Carex aquatilis	35		OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
	Comarum palustre	25		OBL	¹ Indicators of hydric soil and wetland hydrology must
	Calamagrostis canadensis	-		FAC	be present, unless disturbed or problematic.
					Plot size (radius, or length x width) <u>10m</u>
		-			% Cover of Wetland Bryophytes
		-			(Where applicable)
					% Bare Ground
					Total Cover of Bryophytes
10.		0			Hydrophytic
			-6		Vegetation Present? Yes No
L	50% of Total Cover:	31.5 20%	or rotal Cover	12.6	
Rema	ırks:				

SOIL

Period Color (model) % Uppel Loc. ² Texture Remarks (memory So Color (model) % Uppel Loc. ² Texture Remarks (memory So Uppel Loc. ² Texture Remarks (memory So Uppel Loc. ² Texture Remarks " " Type: (C-Concentration. D=Depletion. RM=Reduced Matrix ² Location: PL=Pore Lining. RC=Root Channel. M=Matrix Histo: Solis ² Linitaka Clark Channel. M=Matrix ** * Indicators for Problematic Hydric Solis ² Linitaka Clark Channel. (TA) Linitaka Clark Channel. (TA) Linitaka Clark Channel. (TA) * Histo: Epipedio Or Histo (A1) Alaska Clark Channel. (TA) Linitaka Clark Channel. (TA) Linitaka Clark Channel. (TA) * Histo: Epipedio Or Histo (A1) Alaska Clark Channel. (TA) Underlying Lynet Modelying Lynet * Histo: Epipedio Clark Channel. (TA) Alaska Clark Channel. (TA) Modelying Lynet * Histo: Epipedio Clark Channel. (TA) Alaska Clark Channel. (TA) Modelying Lynet * Alaska Clark Channel. (TA) Alaska Clare Channel. (TA) Modelying Lynet		Matrix		ment the indicator or con Rec	dox Features			
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ² Histosol or Histel (A1) Alaska Color Change (TA4) Indicators for Problematic Hydric Soils ² Histosol or Histel (A1) Alaska Alpine swales (TA5) Other (Explain in Remarks) Hydroge Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Histosol or Histel (A1) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed (A13) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed Pores (A15) * One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present Alaska Gleyed Pores (A15) * Give details of color change in Remarks Restrictive Layer (if present): Type: none observed Hydric Soil Present? Yes No Opeth (inches): Remarks: sasumed hydric soil, site innundated . Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10) Mitply Water Table (A2) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres along Living Roots (C3) Hydrogen Suffac Odor (C1) Saturation (A3) Hydrogen Suffac Odor (C1) Saturation (A3) Hydrogen Suffac Odor (C1) Sature Roke (B6) Wetland Hydrology Present? Yes No S	(Color (moist)	%	Color (moist)	<u>%</u> Туре ¹	Loc ²	Texture	Remarks
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ²								
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☐ Thick Dark Surface (A12) 3 One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present ☐ Alaska Gleyed (A13) 4 Give details of color change in Remarks Restrictive Layer (if present): Type: none observed Depth (inches): Hydric Soil Present? Yes ● No ○ Permarks: sssumed hydrology Indicators: Primary. Joint cators:						\checkmark	Other (Explain in Remark	s)
Alaska Gleyed (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present Alaska Gleyed Nores (A15) ⁴ Give details of color change in Remarks Restrictive Layer (if present): Type: none observed Depth (inches): Hydric Soil Present? Yes Remarks: secondary.Indicators: Primary Indicator of hydrophytic vegetation, one primary indicators (two or more are required) Primary Indicators (any one is sufficient) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Hydrology Indicators: Surface Water (A1) Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10) Drainage Patterns (B10) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Mari Deposits (B15) Hydrogen Suffide Odor (C1) Saturation Surface Sil Oracks (B6) Fide Observations: Othe		. ,						
□ Aska Redox (A14) ▲ Gleved details of color change in Remarks Restrictive Layer (if present): Type: none observed Depth (inches): Hydric Soil Present? Yes ● No ○ Remarks: assumed hydric soil, site innundated . #VDROLOGY Secondary Indicators: Primary Indicators (any one is sufficient) □ Inundation Visible on Aerial Imagery (B7) □ brainage Patterns (B10) □ obidized Rhizospheres along Living Roots (C3) □ High Water Table (A2) ⊆ Sparsely Vegetated Concave Surface (B8) □ obidized Rhizospheres along Living Roots (C3) □ Saturation Deposits (B2) □ Dry-Season Water Table (C2) ✓ Stunted or Stressed Plants (D1) □ Ind Deposits (B3) □ Other (Explain in Remarks) ✓ Geomorphic Position (D2) □ Surface Water Present? Yes ● No ● Depth (inches): 0 Surface Ride Present? Yes ● No ● Depth (inches): 0 Surface Nater Present? Yes ● No ● Depth (inches): 0 Surface Nater Present? Yes ● No ● Depth (inches): 0 Surface Nater Present? Yes ● No ● Depth (inches): 0 Surface Nater Present? Yes ● No ● Depth (inches): 0 Surface Nater Present? Yes ● No ● Depth (inches): 0	🗌 Alaska Gle	yed (A13)						ydrology,
□ Maska deget Price (M15) Restrictive Layer (if present): Type: none observed Depth (inches): Remarks: assumed hydric soil, site innundated . Hydric Soil Present? Yes No Hydric Soil Present? Yes Wetland Hydrology Indicators: Primary Indicators (any one is sufficient) Water Stained Leaves (B9) Staturation (A3) Hydrogen Suffice Odor (C1) Saturation Hydrology Indicators: Surface Water (B1) Hydrogen Suffice Odor (C1) Saturation Present? Yes No Surface Soil Cracks (B6) Hydrogen Suffice Odor (C1) Saturation Present? Yes <t< td=""><td>🗌 Alaska Rec</td><td>dox (A14)</td><td></td><td></td><td></td><td>-</td><td>sent</td><td></td></t<>	🗌 Alaska Rec	dox (A14)				-	sent	
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Remarks:

unnundsted pits trending to flowing channels throughout .