

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 05-Jul-13
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW13_T114_02
 Investigator(s): WAD, BAB Landform (hillside, terrace, hummocks etc.): Alluvial fan
 Local relief (concave, convex, none): convex Slope: 7.0 % / 4.0 ° Elevation: 510
 Subregion: Interior Alaska Mountains Lat.: 62.781647444 Long.: -148.016287684 Datum: WGS84
 Soil Map Unit Name: _____ NWI classification: PEM1E

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: sloping wet meadow. convex feature. photo num 1018, 1019 photo time 1054	

VEGETATION -Use scientific names of plants. List all species in the plot.

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum					
1. _____	0	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)	
2. _____	0	<input type="checkbox"/>	_____		
3. _____	0	<input type="checkbox"/>	_____		
4. _____	0	<input type="checkbox"/>	_____		
5. _____	0	<input type="checkbox"/>	_____		
Total Cover:		0		Prevalence Index worksheet: Total % Cover of: Multiply by: OBL Species <u>70</u> x 1 = <u>70</u> FACW Species <u>4</u> x 2 = <u>8</u> FAC Species <u>15</u> x 3 = <u>45</u> FACU Species <u>0</u> x 4 = <u>0</u> UPL Species <u>0</u> x 5 = <u>0</u> Column Totals: <u>89</u> (A) <u>123</u> (B) Prevalence Index = B/A = <u>1.382</u>	
Sapling/Shrub Stratum 50% of Total Cover: <u>0</u> 20% of Total Cover: <u>0</u>					
1. <u>Salix pulchra</u>	4	<input checked="" type="checkbox"/>	FACW		
2. <u>Salix barclayi</u>	5	<input checked="" type="checkbox"/>	FAC		
3. _____	0	<input type="checkbox"/>	_____		
4. _____	0	<input type="checkbox"/>	_____		
5. _____	0	<input type="checkbox"/>	_____		
6. _____	0	<input type="checkbox"/>	_____		
7. _____	0	<input type="checkbox"/>	_____		
8. _____	0	<input type="checkbox"/>	_____		
9. _____	0	<input type="checkbox"/>	_____		
10. _____	0	<input type="checkbox"/>	_____		
Total Cover:		9			
Herb Stratum 50% of Total Cover: <u>4.5</u> 20% of Total Cover: <u>1.8</u>					
1. <u>Calamagrostis canadensis</u>	10	<input type="checkbox"/>	FAC	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
2. <u>Carex aquatilis</u>	55	<input checked="" type="checkbox"/>	OBL		
3. <u>Comarum palustre</u>	15	<input type="checkbox"/>	OBL		
4. _____	0	<input type="checkbox"/>	_____		
5. _____	0	<input type="checkbox"/>	_____		
6. _____	0	<input type="checkbox"/>	_____		
7. _____	0	<input type="checkbox"/>	_____		
8. _____	0	<input type="checkbox"/>	_____		
9. _____	0	<input type="checkbox"/>	_____		
10. _____	0	<input type="checkbox"/>	_____		
Total Cover:		80			
50% of Total Cover: <u>40</u> 20% of Total Cover: <u>16</u>					
Remarks: bare ground exposed 10 percent					

SOIL

Sampling Point: SW13_T114_02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)	%	%	Color (moist)	%	Type ¹	Loc ²		
0-3	5Y 3/1	85		2.5Y 4/2	15	RM	PL	Silt	
3-5	5Y 4/1	100				RM	PL	Sand	
5-7	5Y 3/1							Silt	
7-8								Sand	

¹Type: C=Concentration. D=Depletion. RM=Reduced Matrix ² Location: PL=Pore Lining. RC=Root Channel. M=Matrix

<p>Hydric Soil Indicators:</p> <input type="checkbox"/> Histosol or Histel (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Alaska Gleyed (A13) <input type="checkbox"/> Alaska Redox (A14) <input type="checkbox"/> Alaska Gleyed Pores (A15)	<p>Indicators for Problematic Hydric Soils:³</p> <input type="checkbox"/> Alaska Color Change (TA4) ⁴ <input type="checkbox"/> Alaska Alpine swales (TA5) <input type="checkbox"/> Alaska Redox With 2.5Y Hue <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer <input checked="" type="checkbox"/> Other (Explain in Remarks)
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³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present
⁴ Give details of color change in Remarks

Restrictive Layer (if present): Type: seasonal frost Depth (inches): 29	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
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Remarks:
 Possibly Alaska Gleyed but due to water in the pit not possible to dig past the gleyed layer, assume hydric soil due to geomorphic position, active channel nearby and high water pH at 7.2 which would make redox concentrations more difficult to observe.

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one is sufficient)</p> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<p>Secondary Indicators (two or more are required)</p> <input type="checkbox"/> Water Stained Leaves (B9) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Salt Deposits (C5) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-neutral Test (D5)
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<p>Field Observations:</p> Surface Water Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 1 Water Table Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 0	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
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Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:

Remarks: