

**WETLAND DETERMINATION DATA FORM - Alaska Region**

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 03-Jul-13  
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW13\_T121\_03  
 Investigator(s): JGK Landform (hillside, terrace, hummocks etc.): Flat  
 Local relief (concave, convex, none): hummocky Slope: 0.0 % / 0.0 ° Elevation: 397  
 Subregion: Southcentral Alaska Lat.: 62.799343586 Long.: -149.571670532 Datum: WGS84  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS1/EM1E

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"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>GAME TRAIL THROUGH WETLAND SWTH SINGING DUNN SITE (1361) SOIL (1362)</u>	

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

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	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"/>	_____	
<b>Total Cover:</b> <u>0</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL Species <u>86.2</u> x 1 = <u>86.2</u> FACW Species <u>5.1</u> x 2 = <u>10.2</u> FAC Species <u>10</u> x 3 = <u>30</u> FACU Species <u>2</u> x 4 = <u>8</u> UPL Species <u>0</u> x 5 = <u>0</u> Column Totals: <u>103.3</u> (A) <u>134.4</u> (B) Prevalence Index = B/A = <u>1.301</u>
<b>Sapling/Shrub Stratum</b>	50% of Total Cover: <u>0</u>	20% of Total Cover: <u>0</u>		
1. <u>Myrica gale</u>	35	<input checked="" type="checkbox"/>	OBL	
2. <u>Dasiphora fruticosa</u>	10	<input type="checkbox"/>	FAC	
3. <u>Andromeda polifolia</u>	5	<input type="checkbox"/>	FACW	
4. <u>Vaccinium oxycoccos</u>	0.1	<input type="checkbox"/>	OBL	
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"/>	_____	
<b>Total Cover:</b> <u>50.1</u>				
<b>Herb Stratum</b>	50% of Total Cover: <u>25.05</u>	20% of Total Cover: <u>10.02</u>		
1. <u>Menyanthes trifoliata</u>	10	<input checked="" type="checkbox"/>	OBL	
2. <u>Trichophorum caespitosum</u>	25	<input checked="" type="checkbox"/>	OBL	
3. <u>Carex aquatilis</u>	5	<input type="checkbox"/>	OBL	
4. <u>Eriophorum angustifolium</u>	0.1	<input type="checkbox"/>	OBL	
5. <u>Drosera rotundifolia</u>	1	<input type="checkbox"/>	OBL	
6. <u>Trientalis europaea</u>	2	<input type="checkbox"/>	FACU	
7. <u>Carex rariflora</u>	5	<input type="checkbox"/>	OBL	
8. <u>Trichophorum alpinum</u>	5	<input type="checkbox"/>	OBL	
9. <u>Eriophorum viridicarinaratum</u>	0.1	<input type="checkbox"/>	OBL	
10. <u>Viola epipsila</u>	0.1	<input type="checkbox"/>	FACW	
<b>Total Cover:</b> <u>53.3</u>				
50% of Total Cover: <u>26.65</u>	20% of Total Cover: <u>10.66</u>			
<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Plot size (radius, or length x width) <u>10m</u> % Cover of Wetland Bryophytes (Where applicable) <u>20</u> % Bare Ground <u>0</u> Total Cover of Bryophytes <u>45</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>				
Remarks: <u>1% dodecatheon</u>				

**SOIL**

Sampling Point: SW13\_T121\_03

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 <sup>1</sup>	Loc <sup>2</sup>		
0-15								Fibric Organics

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

**Hydric Soil Indicators:**

Histosol or Histel (A1)  
 Histic Epipedon (A2)  
 Hydrogen Sulfide (A4)  
 Thick Dark Surface (A12)  
 Alaska Gleyed (A13)  
 Alaska Redox (A14)  
 Alaska Gleyed Pores (A15)

**Indicators for Problematic Hydric Soils:<sup>3</sup>**

Alaska Color Change (TA4)<sup>4</sup>  
 Alaska Alpine swales (TA5)  
 Alaska Redox With 2.5Y Hue  
 Alaska Gleyed Without Hue 5Y or Redder Underlying Layer  
 Other (Explain in Remarks)

<sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present  
<sup>4</sup> Give details of color change in Remarks

Restrictive Layer (if present):  
 Type: FROZEN  
 Depth (inches): 15

**Hydric Soil Present?**    Yes     No

Remarks:  
 LIKELY HISTOSOL GIVEN OTHER SITE CONDITIONS

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (any one is sufficient)

Surface Water (A1)                       Inundation Visible on Aerial Imagery (B7)  
 High Water Table (A2)                       Sparsely Vegetated Concave Surface (B8)  
 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)

Secondary Indicators (two or more are required)

Water Stained Leaves (B9)  
 Drainage Patterns (B10)  
 Oxidized Rhizospheres along Living Roots (C3)  
 Presence of Reduced Iron (C4)  
 Salt Deposits (C5)  
 Stunted or Stressed Plants (D1)  
 Geomorphic Position (D2)  
 Shallow Aquitard (D3)  
 Microtopographic Relief (D4)  
 FAC-neutral Test (D5)

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches):  
 Water Table Present?    Yes     No     Depth (inches):  
 Saturation Present?    Yes     No     Depth (inches):  
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:

Remarks:  
 Surface water in patches 1 in deep. water table and saturation w/in 12 inches of surface.  
 EC 40  
 pH 6.2