

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 20-Jun-12
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW12_T06_03
 Investigator(s): SLI, EKJ Landform (hillside, terrace, hummocks etc.): Terrace
 Local relief (concave, convex, none): hummocky Slope: 0.0 % / 0.0 ° Elevation: 500
 Subregion: Interior Alaska Mountains Lat.: 62.8294899084 Long.: -148.61518997 Datum: WGS84
 Soil Map Unit Name: _____ **NWI classification: PFO4B**

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:	

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

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Picea mariana</u>	35	<input checked="" type="checkbox"/>	FACW	Number of Dominant Species That are OBL, FACW, or FAC: <u>5</u> (A)
2. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>35</u>				
Sapling/Shrub Stratum	50% of Total Cover: <u>17.5</u>	20% of Total Cover: <u>7</u>		Prevalence Index worksheet:
1. <u>Picea mariana</u>	20	<input checked="" type="checkbox"/>	FACW	Total % Cover of: Multiply by:
2. <u>Picea glauca</u>	3	<input type="checkbox"/>	FACU	OBL Species <u>0</u> x 1 = <u>0</u>
3. <u>Betula nana</u>	3	<input type="checkbox"/>	FAC	FACW Species <u>63</u> x 2 = <u>126</u>
4. <u>Vaccinium uliginosum</u>	7	<input type="checkbox"/>	FAC	FAC Species <u>38</u> x 3 = <u>114</u>
5. <u>Salix barclayi</u>	3	<input type="checkbox"/>	FAC	FACU Species <u>9</u> x 4 = <u>36</u>
6. <u>Spiraea stevenii</u>	3	<input type="checkbox"/>	FACU	UPL Species <u>0</u> x 5 = <u>0</u>
7. <u>Vaccinium vitis-idaea</u>	10	<input checked="" type="checkbox"/>	FAC	Column Totals: <u>110</u> (A) <u>276</u> (B)
8. <u>Ledum groenlandicum</u>	1	<input type="checkbox"/>	FAC	Prevalence Index = B/A = <u>2.509</u>
9. <u>Empetrum nigrum</u>	5	<input type="checkbox"/>	FAC	
10. <u>Rosa acicularis</u>	1	<input type="checkbox"/>	FACU	
Total Cover: <u>56</u>				
Herb Stratum	50% of Total Cover: <u>28</u>	20% of Total Cover: <u>11.2</u>		Hydrophytic Vegetation Indicators:
1. <u>Petasites frigidus</u>	3	<input type="checkbox"/>	FACW	<input checked="" type="checkbox"/> Dominance Test is > 50%
2. <u>Equisetum sylvaticum</u>	7	<input checked="" type="checkbox"/>	FAC	<input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0
3. <u>Rubus chamaemorus</u>	5	<input checked="" type="checkbox"/>	FACW	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Rumex arcticus</u>	1	<input type="checkbox"/>	FAC	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Cornus suecica</u>	1	<input type="checkbox"/>	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. <u>Orthilia secunda</u>	1	<input type="checkbox"/>	FACU	Plot size (radius, or length x width) <u>10m</u>
7. <u>Anthoxanthum monticola ssp. alpinum</u>	1	<input type="checkbox"/>	FACU	% Cover of Wetland Bryophytes (Where applicable) _____
8. _____	0	<input type="checkbox"/>	_____	% Bare Ground <u>2</u>
9. _____	0	<input type="checkbox"/>	_____	Total Cover of Bryophytes <u>95</u>
10. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>19</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
50% of Total Cover: <u>9.5</u>	20% of Total Cover: <u>3.8</u>			

Remarks: arclat identification based on last year inflorescence.

SOIL

Sampling Point: **SW12_T06_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 ¹	Loc ²		
0-6		100					Fibric Organics	
6-10		100					Hemic Organics	
10-14		100					Sapric Organics	

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 checked="" 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 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

<p>Restrictive Layer (if present): Type: active layer (frozen) Depth (inches): 14</p>	<p>Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/></p>
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Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one is sufficient)</p> <input 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)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Other (Explain in Remarks)	<p>Secondary Indicators (two or more are required)</p> <input type="checkbox"/> Water Stained Leaves (B9) <input 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 type="checkbox"/> Geomorphic Position (D2) <input checked="" 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> <p>Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches):</p> <p>Water Table Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 8</p> <p>Saturation Present? (includes capillary fringe) Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 4</p>	<p>Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/></p>
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Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:

Remarks: