

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 30-Jul-12
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW12_T05_05
 Investigator(s): CTS, EKJ Landform (hillside, terrace, hummocks etc.): Flat
 Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0 ° Elevation: 538
 Subregion: Interior Alaska Mountains Lat.: 62.7801699084 Long.: -147.907159974 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: <u>Open black spruce forest bordering on woodland</u>	

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>	30	<input checked="" type="checkbox"/>	FACW	Number of Dominant Species That are OBL, FACW, or FAC:	<u>6</u> (A)
2. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata:	<u>6</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>30</u>		
Sapling/Shrub Stratum	50% of Total Cover: <u>15</u>	20% of Total Cover: <u>6</u>			
1. <u>Vaccinium uliginosum</u>	30	<input checked="" type="checkbox"/>	FAC	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL Species <u>0</u> x 1 = <u>0</u> FACW Species <u>42.1</u> x 2 = <u>84.2</u> FAC Species <u>49.1</u> x 3 = <u>147.3</u> FACU Species <u>0.1</u> x 4 = <u>0.400</u> UPL Species <u>0</u> x 5 = <u>0</u> Column Totals: <u>91.3</u> (A) <u>231.9</u> (B) Prevalence Index = B/A = <u>2.540</u>	
2. <u>Vaccinium vitis-idaea</u>	10	<input checked="" type="checkbox"/>	FAC		
3. <u>Ledum groenlandicum</u>	5	<input type="checkbox"/>	FAC		
4. <u>Salix pulchra</u>	1	<input type="checkbox"/>	FACW		
5. <u>Betula nana</u>	1	<input type="checkbox"/>	FAC		
6. <u>Ledum decumbens</u>	1	<input type="checkbox"/>	FACW		
7. <u>Empetrum nigrum</u>	0.1	<input type="checkbox"/>	FAC		
8. _____	0	<input type="checkbox"/>	_____		
9. _____	0	<input type="checkbox"/>	_____		
10. _____	0	<input type="checkbox"/>	_____		
Total Cover:			<u>48.1</u>		
Herb Stratum	50% of Total Cover: <u>24.05</u>	20% of Total Cover: <u>9.62</u>			
1. <u>Rubus chamaemorus</u>	5	<input checked="" type="checkbox"/>	FACW	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) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u>Petasites frigidus</u>	5	<input checked="" type="checkbox"/>	FACW		
3. <u>Carex bigelowii</u>	3	<input checked="" type="checkbox"/>	FAC		
4. <u>Arctagrostis latifolia</u>	0.1	<input type="checkbox"/>	FACW		
5. <u>Orthilia secunda</u>	0.1	<input type="checkbox"/>	FACU		
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:			<u>13.2</u>	Plot size (radius, or length x width) <u>10m</u> % Cover of Wetland Bryophytes (Where applicable) <u>90</u> % Bare Ground <u>0</u> Total Cover of Bryophytes <u>90</u>	
50% of Total Cover:			<u>6.6</u>		
20% of Total Cover:			<u>2.64</u>		
Remarks: _____					

SOIL

Sampling Point: **SW12_T05_05**

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		
0-11			100					Fibric Organics	
11-14	5Y	4/1	50	10YR	3/3	50	C	PL	Silt Loam 10% roots
14-15	10YR	2/1	100						Loam lots of undecomposed 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

Restrictive Layer (if present): Type: Depth (inches):	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
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Remarks:
Sphagnum mat extensive

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (any one is sufficient)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<p><u>Secondary Indicators (two or more are required)</u></p> <input type="checkbox"/> Water Stained Leaves (B9) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input checked="" 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 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 type="radio"/> No <input checked="" type="radio"/> Depth (inches): Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): Saturation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 1 (includes capillary fringe)	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:
cannot apply A3 as no water table or restrictive layer w/in 12in