

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 02-Aug-12
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW12_T54_05
 Investigator(s): SLI, KMK Landform (hillside, terrace, hummocks etc.): Swale
 Local relief (concave, convex, none): convex Slope: 12.2 % / 7.0 ° Elevation: 729
 Subregion: Southcentral Alaska Lat.: 62.8342199113 Long.: -149.159888305 Datum: WGS84
 Soil Map Unit Name: _____ NWI classification: Upland

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 type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: _____	

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

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>0</u>				
<u>Sapling/Shrub Stratum</u>	50% of Total Cover: <u>0</u>	20% of Total Cover: <u>0</u>		Prevalence Index worksheet:
1. <u>Betula nana</u>	30	<input checked="" type="checkbox"/>	FAC	Total % Cover of: Multiply by:
2. <u>Ledum decumbens</u>	10	<input type="checkbox"/>	FACW	OBL Species <u>0</u> x 1 = <u>0</u>
3. <u>Empetrum nigrum</u>	30	<input checked="" type="checkbox"/>	FAC	FACW Species <u>22</u> x 2 = <u>44</u>
4. <u>Picea glauca</u>	2	<input type="checkbox"/>	FACU	FAC Species <u>81</u> x 3 = <u>243</u>
5. <u>Salix myrtilifolia</u>	10	<input type="checkbox"/>	FACW	FACU Species <u>34</u> x 4 = <u>136</u>
6. <u>Vaccinium vitis-idaea</u>	10	<input type="checkbox"/>	FAC	UPL Species <u>1</u> x 5 = <u>5</u>
7. <u>Vaccinium uliginosum</u>	5	<input type="checkbox"/>	FAC	Column Totals: <u>138</u> (A) <u>428</u> (B)
8. <u>Andromeda polifolia</u>	2	<input type="checkbox"/>	FACW	Prevalence Index = B/A = <u>3.101</u>
9. _____	0	<input type="checkbox"/>	_____	
10. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>99</u>				
<u>Herb Stratum</u>	50% of Total Cover: <u>49.5</u>	20% of Total Cover: <u>19.8</u>		Hydrophytic Vegetation Indicators:
1. <u>Lycopodium clavatum</u>	1	<input type="checkbox"/>	FACU	<input checked="" type="checkbox"/> Dominance Test is > 50%
2. <u>Cornus canadensis</u>	25	<input checked="" type="checkbox"/>	FACU	<input type="checkbox"/> Prevalence Index is ≤ 3.0
3. <u>Anemone narcissiflora</u>	3	<input type="checkbox"/>	FACU	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Huperzia selago var. selago</u>	1	<input type="checkbox"/>	UPL	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Anthoxanthum monticola ssp. alpinum</u>	3	<input type="checkbox"/>	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. <u>Carex bigelowii</u>	3	<input type="checkbox"/>	FAC	Plot size (radius, or length x width) <u>10m</u>
7. <u>Festuca altaica</u>	3	<input type="checkbox"/>	FAC	% Cover of Wetland Bryophytes (Where applicable) _____
8. _____	0	<input type="checkbox"/>	_____	% Bare Ground <u>0</u>
9. _____	0	<input type="checkbox"/>	_____	Total Cover of Bryophytes <u>50</u>
10. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>39</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
50% of Total Cover: <u>19.5</u>	20% of Total Cover: <u>7.8</u>			

Remarks: lycsel collected. brome and carex as collected today. trace pedcap

SOIL

Sampling Point: **SW12_T54_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		
0-2		100					Fibric Organics	
2-4.5	7.5YR	3/3	100				Silt Loam	
4.5-5.5		100					Sapric Organics	
5.5-7	5YR	3/4	100				Sandy Loam	
7-16	7.5YR	3/2	90				Coarse Sandy Loam	10% subangular gravels

¹Type: C=Concentration. D=Depletion. RM=Reduced Matrix ² 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:³

Alaska Color Change (TA4)⁴
 Alaska Alpine swales (TA5)
 Alaska Redox With 2.5Y Hue

Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
 Other (Explain in Remarks)

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 No

Remarks:
 no hydric soil indicators

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)
 Algal Mat or Crust (B4)
 Iron Deposits (B5)
 Surface Soil Cracks (B6)

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:
 no wetland hydrology indicators