

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 04-Jul-13
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW13_T109_04
 Investigator(s): JGK Landform (hillside, terrace, hummocks etc.): Bench
 Local relief (concave, convex, none): hummocky Slope: 0.0 % / 0.0 ° Elevation: 700
 Subregion: Interior Alaska Mountains Lat.: 62.8716891725 Long.: -148.277405603 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: <u>DUNN SITE 1395 SOIL 1396</u> <u>MOOSE BROWSE ON ONE WILLOW</u> <u>MOOSE SCAT</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 glauca</u>	1	<input checked="" type="checkbox"/>	FACU	Number of Dominant Species That are OBL, FACW, or FAC:	<u>3</u> (A)
2. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC:	<u>75.0%</u> (A/B)
4. _____	0	<input type="checkbox"/>	_____		
5. _____	0	<input type="checkbox"/>	_____		
Total Cover: <u>1</u>					
Sapling/Shrub Stratum	50% of Total Cover: <u>0.5</u>	20% of Total Cover: <u>0.2</u>		Prevalence Index worksheet:	
1. <u>Betula nana</u>	50	<input checked="" type="checkbox"/>	FAC	Total % Cover of:	Multiply by:
2. <u>Betula glandulosa</u>	10	<input type="checkbox"/>	FAC	OBL Species <u>0</u>	x 1 = <u>0</u>
3. <u>Ledum decumbens</u>	15	<input type="checkbox"/>	FACW	FACW Species <u>15</u>	x 2 = <u>30</u>
4. <u>Vaccinium uliginosum</u>	25	<input checked="" type="checkbox"/>	FAC	FAC Species <u>112</u>	x 3 = <u>336</u>
5. <u>Vaccinium vitis-idaea</u>	20	<input type="checkbox"/>	FAC	FACU Species <u>1</u>	x 4 = <u>4</u>
6. <u>Ledum groenlandicum</u>	2	<input type="checkbox"/>	FAC	UPL Species <u>0</u>	x 5 = <u>0</u>
7. _____	0	<input type="checkbox"/>	_____	Column Totals: <u>128</u> (A)	<u>370</u> (B)
8. _____	0	<input type="checkbox"/>	_____	Prevalence Index = B/A =	<u>2.891</u>
9. _____	0	<input type="checkbox"/>	_____		
10. _____	0	<input type="checkbox"/>	_____		
Total Cover: <u>122</u>					
Herb Stratum	50% of Total Cover: <u>61</u>	20% of Total Cover: <u>24.4</u>		Hydrophytic Vegetation Indicators:	
1. <u>Cornus suecica</u>	5	<input checked="" type="checkbox"/>	FAC	<input checked="" type="checkbox"/> Dominance Test is > 50%	
2. _____	0	<input type="checkbox"/>	_____	<input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0	
3. _____	0	<input type="checkbox"/>	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____	0	<input type="checkbox"/>	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____	0	<input type="checkbox"/>	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
6. _____	0	<input type="checkbox"/>	_____	Plot size (radius, or length x width)	<u>10m</u>
7. _____	0	<input type="checkbox"/>	_____	% Cover of Wetland Bryophytes (Where applicable)	<u>0</u>
8. _____	0	<input type="checkbox"/>	_____	% Bare Ground	<u>5</u>
9. _____	0	<input type="checkbox"/>	_____	Total Cover of Bryophytes	<u>60</u>
10. _____	0	<input type="checkbox"/>	_____		
Total Cover: <u>5</u>					
50% of Total Cover: <u>2.5</u> 20% of Total Cover: <u>1</u>					

Remarks: TR SALIX LICHEN 5%

SOIL

Sampling Point: **SW13_T109_04**

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							Fibric Organics	Fibric Organics
2-3.5								ASH/CHARCOAL LAYER
3.5-5	2.5YR	2.5/3	100				Coarse Loamy Sand	
5-6.5	10YR	4/6	100				Fine Sandy Loam	
6.5-8	10YR	2/2	100				Fine Sandy Loam	
8-11	5YR	4/6	100				Coarse Loamy Sand	
11-16							Coarse Sand	with some small angular gravel

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 Gleyed Without Hue 5Y or Redder Underlying Layer
 Alaska Alpine swales (TA5) Other (Explain in Remarks)
 Alaska Redox With 2.5Y Hue

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