

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Denali Borough Sampling Date: 06-Aug-12
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW12_T04_02
 Investigator(s): CTS, EKJ Landform (hillside, terrace, hummocks etc.): Mountainslope
 Local relief (concave, convex, none): flat Slope: 99.9 % / 45.0 ° Elevation: 874
 Subregion: Interior Alaska Mountains Lat.: 63.4614899075 Long.: -148.64319997 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: Open tall alder on steep slope, Vaculi and Spiste dominating openings, larger mappable polygon on the slope (seen from below) has large areas of open tall birch (Betgla), probably more birch than alder!	

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

Tree Stratum	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) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL Species <u>0</u> x 1 = <u>0</u> FACW Species <u>0</u> x 2 = <u>0</u> FAC Species <u>123</u> x 3 = <u>369</u> FACU Species <u>53</u> x 4 = <u>212</u> UPL Species <u>0</u> x 5 = <u>0</u> Column Totals: <u>176</u> (A) <u>581</u> (B) Prevalence Index = B/A = <u>3.301</u>
Sapling/Shrub Stratum	50% of Total Cover: <u>0</u>	20% of Total Cover: <u>0</u>		
1. <u>Vaccinium uliginosum</u>	60	<input checked="" type="checkbox"/>	FAC	
2. <u>Alnus viridis ssp. crispa</u>	50	<input checked="" type="checkbox"/>	FAC	
3. <u>Spiraea stevenii</u>	25	<input type="checkbox"/>	FACU	
4. <u>Vaccinium vitis-idaea</u>	10	<input type="checkbox"/>	FAC	
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"/>	_____	
Total Cover: <u>145</u>				
Herb Stratum	50% of Total Cover: <u>72.5</u>	20% of Total Cover: <u>29</u>		
1. <u>Cornus canadensis</u>	25	<input checked="" type="checkbox"/>	FACU	
2. <u>Calamagrostis canadensis</u>	3	<input type="checkbox"/>	FAC	
3. <u>Chamerion angustifolium</u>	2	<input type="checkbox"/>	FACU	
4. <u>Trientalis europaea</u>	1	<input type="checkbox"/>	FACU	
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"/>	_____	
Total Cover: <u>31</u>				
50% of Total Cover: <u>15.5</u>	20% of Total Cover: <u>6.2</u>			
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input 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.				
Plot size (radius, or length x width) <u>10m</u> % Cover of Wetland Bryophytes (Where applicable) <u>0</u> % Bare Ground <u>20</u> Total Cover of Bryophytes <u>20</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>				

Remarks:

SOIL

Sampling Point: **SW12_T04_02**

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		
0-2			80%				Fibric Organics	20% roots
2-4			80				Hemic Organics	20% roots
4-8	2.5Y	3/1	90				Sandy Loam	10% roots w few rounded cobbles
8-18	5Y	2.5/1	70				Sandy Loam	

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. 8-18in layer with 30% ang-semiang gvl and cobs w coarse sand

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