

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 24-Jun-12
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW12_T07_05
 Investigator(s): JGK Landform (hillside, terrace, hummocks etc.): Bench
 Local relief (concave, convex, none): hummocky Slope: 0.0 % / 0.0 ° Elevation: 523
 Subregion: Interior Alaska Mountains Lat.: 62.8342899088 Long.: -148.259809973 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 checked="" type="radio"/> No <input 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.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum				Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)
1. <u>Picea glauca</u>	<u>15</u>	<input checked="" type="checkbox"/>	FACU	
2. _____	<u>0</u>	<input type="checkbox"/>	_____	
3. _____	<u>0</u>	<input type="checkbox"/>	_____	
4. _____	<u>0</u>	<input type="checkbox"/>	_____	
5. _____	<u>0</u>	<input type="checkbox"/>	_____	
Total Cover: <u>15</u>				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL Species <u>0</u> x 1 = <u>0</u> FACW Species <u>1</u> x 2 = <u>2</u> FAC Species <u>85</u> x 3 = <u>255</u> FACU Species <u>20</u> x 4 = <u>80</u> UPL Species <u>0</u> x 5 = <u>0</u> Column Totals: <u>106</u> (A) <u>337</u> (B) Prevalence Index = B/A = <u>3.179</u>
Sapling/Shrub Stratum 50% of Total Cover: <u>7.5</u> 20% of Total Cover: <u>3</u>				
1. <u>Betula glandulosa</u>	<u>40</u>	<input checked="" type="checkbox"/>	FAC	
2. <u>Picea glauca</u>	<u>5</u>	<input type="checkbox"/>	FACU	
3. <u>Vaccinium vitis-idaea</u>	<u>20</u>	<input checked="" type="checkbox"/>	FAC	
4. <u>Vaccinium uliginosum</u>	<u>10</u>	<input type="checkbox"/>	FAC	
5. <u>Ledum groenlandicum</u>	<u>5</u>	<input type="checkbox"/>	FAC	
6. <u>Ledum decumbens</u>	<u>1</u>	<input type="checkbox"/>	FACW	
7. _____	<u>0</u>	<input type="checkbox"/>	_____	
8. _____	<u>0</u>	<input type="checkbox"/>	_____	
9. _____	<u>0</u>	<input type="checkbox"/>	_____	
10. _____	<u>0</u>	<input type="checkbox"/>	_____	
Total Cover: <u>81</u>				
Herb Stratum 50% of Total Cover: <u>40.5</u> 20% of Total Cover: <u>16.2</u>				
1. <u>Carex bigelowii</u>	<u>10</u>	<input checked="" type="checkbox"/>	FAC	
2. _____	<u>0</u>	<input type="checkbox"/>	_____	
3. _____	<u>0</u>	<input type="checkbox"/>	_____	
4. _____	<u>0</u>	<input type="checkbox"/>	_____	
5. _____	<u>0</u>	<input type="checkbox"/>	_____	
6. _____	<u>0</u>	<input type="checkbox"/>	_____	
7. _____	<u>0</u>	<input type="checkbox"/>	_____	
8. _____	<u>0</u>	<input type="checkbox"/>	_____	
9. _____	<u>0</u>	<input type="checkbox"/>	_____	
10. _____	<u>0</u>	<input type="checkbox"/>	_____	
Total Cover: <u>10</u>				
50% of Total Cover: <u>5</u> 20% of Total Cover: <u>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>3</u> % Bare Ground <u>0</u> Total Cover of Bryophytes <u>75</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>				
Remarks: <u>trace salcom salix sp. rosaci rubcha and picmar</u>				

SOIL

Sampling Point: **SW12_T07_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	20% roots
2-3			100					Hemic Organics	15% roots
3-5	10YR	3/2	100					Fine Loamy Sand	darkens downward and found charcoal in la
5-8	7.5YR	3/4	75	10YR	3/3	25	M	Fine Loamy Sand	
8-15	7.5YR	2.5/2	100					Fine Loamy Sand	

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: ice
 Depth (inches): 10

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

Surface Water (A1)
 High Water Table (A2)
 Saturation (A3)
 Water Marks (B1)
 Sediment Deposits (B2)
 Drift Deposits (B3)
 Algal Mat or Crust (B4)
 Iron Deposits (B5)
 Surface Soil Cracks (B6)

Inundation Visible on Aerial Imagery (B7)
 Sparsely Vegetated Concave Surface (B8)
 Marl Deposits (B15)
 Hydrogen Sulfide Odor (C1)
 Dry-Season Water Table (C2)
 Other (Explain in Remarks)

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? (includes capillary fringe) Yes No Depth (inches): 10

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:

Remarks:
 aquitard within 12" of surface, thus do not need associated water table to meet A3.