

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 11-Jul-13
 Applicant/Owner: Alaska Energy Authority Sampling Point: **SW13 T108_06**
 Investigator(s): JER Landform (hillside, terrace, hummocks etc.): plateau
 Local relief (concave, convex, none): hummocky Slope: 5.2 % / 3.0 ° Elevation: 755
 Subregion: Interior Alaska Mountains Lat.: 62.893885612 Long.: -148.253139377 Datum: WGS84
 Soil Map Unit Name: _____ **NWI classification: PSS1/3B**

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>adjacent large slope graminoid fen V04, slobe, standing water in depressions</u>	

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

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	0	<input type="checkbox"/>	_____
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>		
Sapling/Shrub Stratum	50% of Total Cover: <u>0</u>	20% of Total Cover: <u>0</u>	
1. <u>Vaccinium uliginosum</u>	30	<input checked="" type="checkbox"/>	FAC
2. <u>Ledum decumbens</u>	30	<input checked="" type="checkbox"/>	FACW
3. <u>Empetrum nigrum</u>	25	<input checked="" type="checkbox"/>	FAC
4. <u>Betula nana</u>	25	<input checked="" type="checkbox"/>	FAC
5. <u>Vaccinium vitis-idaea</u>	10	<input type="checkbox"/>	FAC
6. <u>Salix fuscescens</u>	3	<input type="checkbox"/>	FACW
7. <u>Salix pulchra</u>	2	<input type="checkbox"/>	FACW
8. <u>Dasiphora fruticosa</u>	2	<input type="checkbox"/>	FAC
9. <u>Picea glauca</u>	1	<input type="checkbox"/>	FACU
10. <u>Arctostaphylos rubra</u>	1	<input type="checkbox"/>	FAC
Total Cover:	<u>129</u>		
Herb Stratum	50% of Total Cover: <u>64.5</u>	20% of Total Cover: <u>25.8</u>	
1. <u>Carex bigelowii</u>	8	<input checked="" type="checkbox"/>	FAC
2. <u>Rubus chamaemorus</u>	3	<input checked="" type="checkbox"/>	FACW
3. <u>Festuca altaica</u>	3	<input checked="" type="checkbox"/>	FAC
4. <u>Senecio lugens</u>	3	<input checked="" type="checkbox"/>	FAC
5. <u>Trichophorum caespitosum</u>	2	<input type="checkbox"/>	OBL
6. <u>Cornus suecica</u>	2	<input type="checkbox"/>	FAC
7. <u>Dodecatheon frigidum</u>	2	<input type="checkbox"/>	FACW
8. <u>Pedicularis labradorica</u>	1	<input type="checkbox"/>	FACW
9. <u>Equisetum arvense</u>	1	<input type="checkbox"/>	FAC
10. <u>Tofieldia coccinea</u>	1	<input type="checkbox"/>	FAC
Total Cover:	<u>26</u>		
	50% of Total Cover: <u>13</u>	20% of Total Cover: <u>5.2</u>	

Dominance Test worksheet:
 Number of Dominant Species That are OBL, FACW, or FAC: 8 (A)
 Total Number of Dominant Species Across All Strata: 8 (B)
 Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by:
 OBL Species 2 x 1 = 2
 FACW Species 41 x 2 = 82
 FAC Species 111 x 3 = 333
 FACU Species 1 x 4 = 4
 UPL Species 0 x 5 = 0
 Column Totals: 155 (A) 421 (B)
 Prevalence Index = B/A = 2.716

Hydrophytic Vegetation Indicators:
 Dominance Test is > 50%
 Prevalence Index is ≤ 3.0
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length x width) 10m
 % Cover of Wetland Bryophytes (Where applicable) _____
 % Bare Ground 0
 Total Cover of Bryophytes 60

Hydrophytic Vegetation Present? Yes No

Remarks: valcap 1, artnor 2, carmem 1, solmul 1, carech 1, lichf 20

SOIL

Sampling Point: SW13_T108_06

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		
0-4		100					Fibric Organics	
4-7		100					Hemic Organics	
7-9	7.5YR	2.5/3	100				Sandy Loam	
9-15	10YR	4/6	100				Sand	

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 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 checked="" 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:
 tested positive for a,a-dipyridyl

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<p>Secondary Indicators (two or more are required)</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 checked="" 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 checked="" type="radio"/> No <input type="radio"/> Depth (inches): 5 Saturation Present? (includes capillary fringe) Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 3	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:
 tested positive for a,a-dipyridyl