

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 07-Aug-12
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW12_T36_01
 Investigator(s): SLI, KMK Landform (hillside, terrace, hummocks etc.): Mountainslope
 Local relief (concave, convex, none): concave Slope: % / 2.9 ° Elevation: 853
 Subregion: Southcentral Alaska Lat.: 62.7644683276 Long.: -149.63012576 Datum: NAD83
 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: alpine meadow. NW portion of site a micro-low, wetter and protected w high species diversity. majority of site dominated by dwarf ericaceous veg.	

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:			0	
Sapling/Shrub Stratum	50% of Total Cover: 0	20% of Total Cover: 0		
1. <u>Vaccinium uliginosum</u>	55	<input checked="" type="checkbox"/>	FAC	
2. <u>Empetrum nigrum</u>	30	<input checked="" type="checkbox"/>	FAC	
3. <u>Betula nana</u>	30	<input checked="" type="checkbox"/>	FAC	
4. <u>Arctous alpinus</u>	10	<input type="checkbox"/>	FACU	
5. <u>Salix pulchra</u>	7	<input type="checkbox"/>	FACW	
6. <u>Picea glauca</u>	2	<input type="checkbox"/>	FACU	
7. <u>Salix reticulata</u>	2	<input type="checkbox"/>	FAC	
8. <u>Cassiope tetragona</u>	2	<input type="checkbox"/>	FACU	
9. <u>Spiraea stevenii</u>	2	<input type="checkbox"/>	FACU	
10. <u>Luetkea pectinata</u>	1	<input type="checkbox"/>	FACU	
Total Cover:			141	
Herb Stratum	50% of Total Cover: 70.5	20% of Total Cover: 28.2		
1. <u>Cornus canadensis</u>	7	<input checked="" type="checkbox"/>	FACU	
2. <u>Bistorta plumosa</u>	4	<input checked="" type="checkbox"/>	FACU	
3. <u>Carex bigelowii</u>	3	<input checked="" type="checkbox"/>	FAC	
4. <u>Rubus chamaemorus</u>	3	<input checked="" type="checkbox"/>	FACW	
5. <u>Carex saxatilis</u>	2	<input type="checkbox"/>	FACW	
6. <u>Sanguisorba canadensis</u>	2	<input type="checkbox"/>	FACW	
7. <u>Artemisia norvegica</u>	1	<input type="checkbox"/>	FACU	
8. <u>Calamagrostis lapponica</u>	1	<input type="checkbox"/>	FAC	
9. <u>Anthoxanthum monticola ssp. alpinum</u>	1	<input type="checkbox"/>	UPL	
10. <u>Swertia perennis</u>	1	<input type="checkbox"/>	FACW	
Total Cover:			25	
	50% of Total Cover: 12.5	20% of Total Cover: 5		

Dominance Test worksheet:
 Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)
 Total Number of Dominant Species Across All Strata: 7 (B)
 Percent of dominant Species That Are OBL, FACW, or FAC: 71.4% (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL Species 0 x 1 = 0
 FACW Species 15 x 2 = 30
 FAC Species 121 x 3 = 363
 FACU Species 28 x 4 = 112
 UPL Species 2 x 5 = 10
 Column Totals: 166 (A) 515 (B)
 Prevalence Index = B/A = 3.102

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 70

Hydrophytic Vegetation Present? Yes No

Remarks: 1% pedlan, luzula arcuata, phleum alpinum, carex stylosa, carex magellanica, carex chordorrhiza, vahlodea atropurpurea, bistorta vivipara, deschampsia caespitosa, chamaenerion latifolium, lupinus arcticus, festuca altaica. Picgla krummholz. Descae w no inflorescence, cespitise grass w tightly inrolled lvs and parallel veination.

SOIL

Sampling Point: **SW12_T36_01**

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		
0-3							Fibric Organics	
3-5							Hemic Organics	
5-6							Sapric Organics	
6-15	2.5YR	2.5/3	55				Very Fine Loamy Sand	5% sapric lenses 40% ang cobble
15-18	2.5YR	3/3	70				Sandy Loam	30% angular cobbles

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 type="checkbox"/> 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

<p>Restrictive Layer (if present): Type: Depth (inches):</p>	<p>Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/></p>
--	--

Remarks:
 buried organics throughout, no hydric soil indicators

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (any one is sufficient)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<p><u>Secondary Indicators (two or more are required)</u></p> <input type="checkbox"/> Water Stained Leaves (B9) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Salt Deposits (C5) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-neutral Test (D5)
--	---

<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): Saturation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/></p>
--	--

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

Remarks:
 no wetland hydrology indicators