

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 04-Aug-13
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW13_T119_02
 Investigator(s): BAB Landform (hillside, terrace, hummocks etc.): Mountainslope
 Local relief (concave, convex, none): rolling Slope: % / 31.1 ° Elevation: 103
 Subregion: Interior Alaska Mountains Lat.: 62.8183303117 Long.: -147.781042372 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 type="radio"/> No <input checked="" 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:	

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

<u>Tree Stratum</u>	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>3</u> (A)
2. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)
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>		Prevalence Index worksheet:
1. <u>Arctous ruber</u>	3	<input type="checkbox"/>	FAC	Total % Cover of: Multiply by:
2. <u>Cassiope tetragona</u>	20	<input checked="" type="checkbox"/>	FACU	OBL Species <u>0</u> x 1 = <u>0</u>
3. <u>Vaccinium uliginosum</u>	15	<input checked="" type="checkbox"/>	FAC	FACW Species <u>9.1</u> x 2 = <u>18.20</u>
4. <u>Salix polaris</u>	2	<input type="checkbox"/>	FACW	FAC Species <u>39</u> x 3 = <u>117</u>
5. <u>Empetrum nigrum</u>	15	<input checked="" type="checkbox"/>	FAC	FACU Species <u>28.5</u> x 4 = <u>114.0</u>
6. <u>Dryas ajanensis</u>	8	<input type="checkbox"/>	UPL	UPL Species <u>12</u> x 5 = <u>60</u>
7. <u>Rhododendron tomentosum</u>	5	<input type="checkbox"/>	FACW	Column Totals: <u>88.6</u> (A) <u>309.2</u> (B)
8. <u>Loiseleuria procumbens</u>	5	<input type="checkbox"/>	FACU	Prevalence Index = B/A = <u>3.490</u>
9. <u>Salix pulchra</u>	2	<input type="checkbox"/>	FACW	
10. <u>Picea glauca</u>	0.1	<input type="checkbox"/>	FACU	
Total Cover: <u>75.1</u>				Hydrophytic Vegetation Indicators:
Herb Stratum	50% of Total Cover: <u>37.55</u>	20% of Total Cover: <u>15.02</u>		<input type="checkbox"/> Dominance Test is > 50%
1. <u>Arnica lessingii</u>	3	<input checked="" type="checkbox"/>	UPL	<input type="checkbox"/> Prevalence Index is ≤ 3.0
2. <u>Carex podocarpa</u>	5	<input checked="" type="checkbox"/>	FAC	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. <u>Anthoxanthum monticola ssp. alpinum</u>	3	<input checked="" type="checkbox"/>	UPL	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
4. <u>Luzula multiflora</u>	0.1	<input type="checkbox"/>	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Bistorta vivipara</u>	1	<input type="checkbox"/>	FAC	Plot size (radius, or length x width) <u>10m</u>
6. <u>Pyrola asarifolia</u>	0.1	<input type="checkbox"/>	FACU	% Cover of Wetland Bryophytes (Where applicable) _____
7. <u>Saxifraga funstonii</u>	0.1	<input type="checkbox"/>	FACU	% Bare Ground <u>15</u>
8. <u>Pedicularis capitata</u>	0.1	<input type="checkbox"/>	FACU	Total Cover of Bryophytes <u>15</u>
9. <u>Arctagrostis latifolia</u>	0.1	<input type="checkbox"/>	FACW	
10. <u>Boykinia richardsonii</u>	1	<input type="checkbox"/>	UPL	
Total Cover: <u>13.5</u>				Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
50% of Total Cover: <u>6.75</u>	20% of Total Cover: <u>2.7</u>			
Remarks:				

SOIL

Sampling Point: SW13_T119_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	Loc ²		
0-5		100					Fibric Organics	
5-17	10YR	3/3	100				Sandy Loam	ang gravels-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)
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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

<p>Restrictive Layer (if present): Type: Depth (inches):</p>	<p>Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/></p>
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Remarks:
no hydric soil indicators observed

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

Remarks:
no wetland hydrology indicators observed