

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 22-Jun-12
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW12_T18_02
 Investigator(s): SLI, EKJ Landform (hillside, terrace, hummocks etc.): Toeslope
 Local relief (concave, convex, none): flat Slope: 8.7 % / 5.0 ° Elevation: 809
 Subregion: Southcentral Alaska Lat.: 62.8507599086 Long.: -149.201579967 Datum: WGS84
 Soil Map Unit Name: _____ NWI classification: **PSS1B**

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:	

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

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Picea glauca</u>	7	<input checked="" type="checkbox"/>	FACU	Number of Dominant Species That are OBL, FACW, or FAC: <u>6</u> (A)
2. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>7</u> (B)
3. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>85.7%</u> (A/B)
4. _____	0	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL Species <u>0</u> x 1 = <u>0</u> FACW Species <u>82</u> x 2 = <u>164</u> FAC Species <u>59</u> x 3 = <u>177</u> FACU Species <u>10</u> x 4 = <u>40</u> UPL Species <u>3</u> x 5 = <u>15</u> Column Totals: <u>154</u> (A) <u>396</u> (B) Prevalence Index = B/A = <u>2.571</u>
5. _____	0	<input type="checkbox"/>	_____	
Total Cover:	<u>7</u>			
Sapling/Shrub Stratum	50% of Total Cover: <u>3.5</u>	20% of Total Cover: <u>1.4</u>		
1. <u>Salix pulchra</u>	35	<input checked="" type="checkbox"/>	FACW	
2. <u>Salix commutata</u>	35	<input checked="" type="checkbox"/>	FAC	
3. <u>Alnus viridis ssp. sinuata</u>	7	<input type="checkbox"/>	FAC	
4. <u>Salix reticulata</u>	3	<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>80</u>			
Herb Stratum	50% of Total Cover: <u>40</u>	20% of Total Cover: <u>16</u>		
1. <u>Dodecatheon jeffreyi</u>	7	<input checked="" type="checkbox"/>	FACW	
2. <u>Sanguisorba officinalis</u>	3	<input type="checkbox"/>	FACW	
3. <u>Pyrola minor</u>	7	<input checked="" type="checkbox"/>	FAC	
4. <u>Anemone richardsonii</u>	5	<input type="checkbox"/>	FAC	
5. <u>Polemonium acutiflorum</u>	1	<input type="checkbox"/>	FAC	
6. <u>Equisetum sylvaticum</u>	1	<input type="checkbox"/>	FAC	
7. <u>Equisetum palustre</u>	30	<input checked="" type="checkbox"/>	FACW	
8. <u>Viola palustris</u>	7	<input checked="" type="checkbox"/>	FACW	
9. <u>Geranium bicknellii</u>	3	<input type="checkbox"/>	UPL	
10. <u>Mertensia paniculata</u>	3	<input type="checkbox"/>	FACU	
Total Cover:	<u>67</u>			
50% of Total Cover:	<u>33.5</u>	20% of Total Cover:	<u>13.4</u>	
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" 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) _____ % Bare Ground <u>35</u> Total Cover of Bryophytes <u>60</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>				

Remarks: 1% each of Arctagrostis latifolia (id based on last season inflorescence), Streptopus amplexifolius, Comarum palustre, Carex aquatilis, Valeriana capitata, and Luzula sp (likely tundricola). trace equisetum fluviatile. no flowers on geranium, unsure of species. bryophytes dominated by liverworts, bare ground includes open water. Additional species in remarks do not change results of dominance test.

SOIL

Sampling Point: **SW12_T18_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		
0-3		100					Fibric Organics	
3-9		100					Hemic Organics	
9-18		100					Sapric Organics	

¹Type: C=Concentration. D=Depletion. RM=Reduced Matrix ² Location: PL=Pore Lining. RC=Root Channel. M=Matrix

<p>Hydric Soil Indicators:</p> <input checked="" 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

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

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one is sufficient)</p> <input checked="" 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 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 checked="" type="radio"/> No <input type="radio"/> Depth (inches): 2 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): 1	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:
 wetland at toe of slope. small pools of shallow standing water throughout site.