

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 24-Aug-15
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW15_T324_04
 Investigator(s): ERT, TXC Landform (hillside, terrace, hummocks etc.): Footslope
 Local relief (concave, convex, none): hummocky Slope: 10.5 % / 6.0 ° Elevation: _____
 Subregion: Cook Inlet Mountains Lat.: _____ Long.: _____ Datum: WGS84
 Soil Map Unit Name: _____ NWI classification: PSS1/EM1B

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.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum				
1. <u>Picea mariana</u>	18	<input checked="" type="checkbox"/>	FACW	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>8</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. <u>Picea glauca</u>	4	<input type="checkbox"/>	FACU	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
Total Cover:		22		
Sapling/Shrub Stratum				
	50% of Total Cover: <u>11</u>	20% of Total Cover: <u>4.4</u>		Prevalence Index worksheet: Total % Cover of: Multiply by: OBL Species <u>21</u> x 1 = <u>21</u> FACW Species <u>33</u> x 2 = <u>66</u> FAC Species <u>28</u> x 3 = <u>84</u> FACU Species <u>4</u> x 4 = <u>16</u> UPL Species <u>0</u> x 5 = <u>0</u> Column Totals: <u>86</u> (A) <u>187</u> (B) Prevalence Index = B/A = <u>2.174</u>
1. <u>Betula nana</u>	10	<input checked="" type="checkbox"/>	FAC	
2. <u>Empetrum nigrum</u>	10	<input checked="" type="checkbox"/>	FAC	
3. <u>Vaccinium uliginosum</u>	8	<input checked="" type="checkbox"/>	FAC	
4. <u>Salix pulchra</u>	5	<input type="checkbox"/>	FACW	
5. <u>Vaccinium oxycoccos</u>	1	<input type="checkbox"/>	OBL	
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:		34		
Herb Stratum				
	50% of Total Cover: <u>17</u>	20% of Total Cover: <u>6.8</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 (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Carex loliacea</u>	15	<input checked="" type="checkbox"/>	OBL	
2. <u>Eriophorum scheuchzeri</u>	5	<input checked="" type="checkbox"/>	OBL	
3. <u>Carex canescens</u>	5	<input checked="" type="checkbox"/>	FACW	
4. <u>Equisetum palustre</u>	5	<input checked="" type="checkbox"/>	FACW	
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:		30		
	50% of Total Cover: <u>15</u>	20% of Total Cover: <u>6</u>		

Remarks: Hummocks are peat mounds.

SOIL

Sampling Point: **SW15_T324_04**

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		
0-6.5							Peat	Oi
6.5-12							Mucky Peat	Oe
12-14							Muck	Oa
14-16	10YR	2/1	100				Silt Loam	gravelly

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 checked="" 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

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

Remarks:

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 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 checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-neutral Test (D5)
---	--

<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): 7 Saturation Present? (includes capillary fringe) Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 0	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
--	---

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

Remarks:
 scattered pools of surface water. D4--hummocks.