

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 27-Aug-15
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW15_T330_10
 Investigator(s): AFW Landform (hillside, terrace, hummocks etc.): Flat
 Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0 ° Elevation: _____
 Subregion: Interior Alaska Mountains Lat.: _____ Long.: _____ Datum: WGS84
 Soil Map Unit Name: _____ **NWI classification: PEM1E**

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. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)	
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
Total Cover:		<u>0</u>		Prevalence Index worksheet: Total % Cover of: Multiply by: OBL Species <u>70</u> x 1 = <u>70</u> FACW Species <u>5</u> x 2 = <u>10</u> FAC Species <u>8</u> x 3 = <u>24</u> FACU Species <u>0</u> x 4 = <u>0</u> UPL Species <u>0</u> x 5 = <u>0</u> Column Totals: <u>83</u> (A) <u>104</u> (B) Prevalence Index = B/A = <u>1.253</u>	
Sapling/Shrub Stratum 50% of Total Cover: <u>0</u> 20% of Total Cover: <u>0</u>					
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"/>	_____		
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>0</u>			
Herb Stratum 50% of Total Cover: <u>0</u> 20% of Total Cover: <u>0</u>					
1. <u>Carex aquatilis</u>	25	<input checked="" type="checkbox"/>	OBL	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.	
2. <u>Arctophila fulva</u>	15	<input checked="" type="checkbox"/>	OBL		
3. <u>Eriophorum scheuchzeri</u>	15	<input checked="" type="checkbox"/>	OBL		
4. <u>Eriophorum angustifolium</u>	10	<input type="checkbox"/>	OBL		
5. <u>Stellaria crispa</u>	5	<input type="checkbox"/>	FAC		
6. <u>Rumex arcticus</u>	3	<input type="checkbox"/>	FAC		
7. <u>Arctagrostis latifolia</u>	3	<input type="checkbox"/>	FACW		
8. <u>Epilobium palustre</u>	3	<input type="checkbox"/>	OBL		
9. <u>Hippuris vulgaris</u>	2	<input type="checkbox"/>	OBL		
10. <u>Juncus castaneus</u>	2	<input type="checkbox"/>	FACW		
Total Cover:		<u>83</u>			
50% of Total Cover:		<u>41.5</u>	20% of Total Cover: <u>16.6</u>	Plot size (radius, or length x width) <u>5x10 m</u> % Cover of Wetland Bryophytes (Where applicable) _____ % Bare Ground <u>25</u> Total Cover of Bryophytes <u>70</u>	
				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks:					

SOIL

Sampling Point: **SW15_T330_10**

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		
0-3	2.5Y	3/2	80	10YR	3/3	20	C	PL	Silt Loam
3-18	2.5Y	3/2	100						Silt Loam

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:
 positive reaction to alpha, alpha dipyrldol

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one is sufficient)</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 checked="" 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>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): 14 Saturation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 10 (includes capillary fringe)	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:
 C4--positive reaction to alpha, alpha dipyrldol.