

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 24-Jun-12
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW12_T07_01
 Investigator(s): JGK Landform (hillside, terrace, hummocks etc.): Floodplain
 Local relief (concave, convex, none): undulating Slope: % / 2.3 ° Elevation: 474
 Subregion: Interior Alaska Mountains Lat.: 62.8302281008 Long.: -148.257745705 Datum: NAD83
 Soil Map Unit Name: _____ NWI classification: PSS1C

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"/>	<p align="center">Is the Sampled Area within a Wetland?</p> 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. _____	0	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>1</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>33.3%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
Total Cover:		0		Prevalence Index worksheet: Total % Cover of: Multiply by: OBL Species <u>0</u> x 1 = <u>0</u> FACW Species <u>0.1</u> x 2 = <u>0.200</u> FAC Species <u>33.1</u> x 3 = <u>99.3</u> FACU Species <u>49.2</u> x 4 = <u>196.8</u> UPL Species <u>0</u> x 5 = <u>0</u> Column Totals: <u>82.4</u> (A) <u>296.3</u> (B) Prevalence Index = B/A = <u>3.596</u>
Sapling/Shrub Stratum		50% of Total Cover: <u>0</u>	20% of Total Cover: <u>0</u>	
1. <u>Populus balsamifera</u>	30	<input checked="" type="checkbox"/>	FACU	
2. <u>Salix alaxensis</u>	15	<input checked="" type="checkbox"/>	FAC	
3. <u>Salix commutata</u>	5	<input type="checkbox"/>	FAC	
4. <u>Shepherdia canadensis</u>	2	<input type="checkbox"/>	FACU	
5. <u>Alnus viridis</u>	2	<input type="checkbox"/>	FAC	
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:		54		
Herb Stratum				
		50% of Total Cover: <u>27</u>	20% of Total Cover: <u>10.8</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is > 50% <input type="checkbox"/> Prevalence Index is ≤ 3.0 <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Hedysarum alpinum</u>	15	<input checked="" type="checkbox"/>	FACU	
2. <u>Castilleja pallida</u>	5	<input type="checkbox"/>	FAC	
3. <u>Astragalus alpinus</u>	3	<input type="checkbox"/>	FAC	
4. <u>Lupinus arcticus</u>	2	<input type="checkbox"/>	FACU	
5. <u>Eurybia sibirica</u>	2	<input type="checkbox"/>	FAC	
6. <u>Chamaenerion latifolium</u>	1	<input type="checkbox"/>	FAC	
7. <u>Rosa acicularis</u>	0.1	<input type="checkbox"/>	FACU	
8. <u>Astragalus alpinus</u>	0.1	<input type="checkbox"/>	FAC	
9. <u>Artemisia tilesii</u>	0.1	<input type="checkbox"/>	FACU	
10. <u>Potentilla anserina</u>	0.1	<input type="checkbox"/>	FACW	
Total Cover:		28.4		
		50% of Total Cover: <u>14.2</u>	20% of Total Cover: <u>5.68</u>	
Remarks: trace achsib and soldec. popbal are saplings. early successional colonizers, assume hydrophytic vegetation.				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 _____ Total Cover of Bryophytes _____ Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>

SOIL

Sampling Point: **SW12_T07_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		
0-14	2.5Y	4/2	50				Sand	rounded-semiangular gravel & rounded co

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:
 0-6 in diam roots 10-15%. Insufficient organics for redox feature development.

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 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 checked="" 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 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 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 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)	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: