

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 23-Jun-12
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW12_T10_06
 Investigator(s): SLI, LMF Landform (hillside, terrace, hummocks etc.): Terrace
 Local relief (concave, convex, none): undulating Slope: 0.0 % / 0.0 ° Elevation: 242
 Subregion: Southcentral Alaska Lat.: 62.7828599092 Long.: -149.671499966 Datum: WGS84
 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.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	40	<input checked="" type="checkbox"/>	FACU	Number of Dominant Species That are OBL, FACW, or FAC:	<u>2</u> (A)
2. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata:	<u>4</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>40</u>		
Sapling/Shrub Stratum	50% of Total Cover: <u>20</u>	20% of Total Cover: <u>8</u>		Prevalence Index worksheet:	
1. <u>Alnus viridis ssp. sinuata</u>	5	<input checked="" type="checkbox"/>	FAC	Total % Cover of:	Multiply by:
2. <u>Viburnum edule</u>	10	<input checked="" type="checkbox"/>	FACU	OBL Species <u>0</u>	x 1 = <u>0</u>
3. <u>Ribes triste</u>	3	<input type="checkbox"/>	FAC	FACW Species <u>60</u>	x 2 = <u>120</u>
4. _____	0	<input type="checkbox"/>	_____	FAC Species <u>15</u>	x 3 = <u>45</u>
5. _____	0	<input type="checkbox"/>	_____	FACU Species <u>70</u>	x 4 = <u>280</u>
6. _____	0	<input type="checkbox"/>	_____	UPL Species <u>0</u>	x 5 = <u>0</u>
7. _____	0	<input type="checkbox"/>	_____	Column Totals: <u>145</u> (A)	<u>445</u> (B)
8. _____	0	<input type="checkbox"/>	_____	Prevalence Index = B/A =	<u>3.069</u>
9. _____	0	<input type="checkbox"/>	_____		
10. _____	0	<input type="checkbox"/>	_____		
Total Cover:			<u>18</u>	Hydrophytic Vegetation Indicators:	
Herb Stratum	50% of Total Cover: <u>9</u>	20% of Total Cover: <u>3.6</u>		<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 type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
1. <u>Matteuccia struthiopteris</u>	60	<input checked="" type="checkbox"/>	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u>Streptopus amplexifolius</u>	3	<input type="checkbox"/>	FACU	Plot size (radius, or length x width)	<u>10m</u>
3. <u>Heracleum maximum</u>	5	<input type="checkbox"/>	FACU	% Cover of Wetland Bryophytes (Where applicable)	_____
4. <u>Equisetum arvense</u>	5	<input type="checkbox"/>	FAC	% Bare Ground	<u>90</u>
5. <u>Pyrola asarifolia</u>	2	<input type="checkbox"/>	FACU	Total Cover of Bryophytes	<u>5</u>
6. <u>Gymnocarpium dryopteris</u>	7	<input type="checkbox"/>	FACU		
7. <u>Moehringia lateriflora</u>	1	<input type="checkbox"/>	FACU		
8. <u>Calamagrostis canadensis</u>	2	<input type="checkbox"/>	FAC		
9. <u>Trientalis europaea</u>	1	<input type="checkbox"/>	FACU		
10. <u>Galium boreale</u>	1	<input type="checkbox"/>	FACU		
Total Cover:			<u>87</u>	Hydrophytic Vegetation Present?	
			50% of Total Cover: <u>43.5</u>	Yes <input type="radio"/> No <input checked="" type="radio"/>	
			20% of Total Cover: <u>17.4</u>		

Remarks: poptre along bank at river edge, popbal comprise canopy away from bank.

SOIL

Sampling Point: **SW12_T10_06**

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		
0-2	5Y	3/2	100					Loamy Sand	
2-4								Fibric Organics	
4-8	2.5Y	3/3	80	10YR	4/6	20	C	PL	Loamy Sand
8-18	2.5Y	3/3	100					Loamy Sand	

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

Restrictive Layer (if present): Type: Depth (inches):	Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
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Remarks:
 No hydric soil indicators. Does not meet AK Redox w 2.5Y Hue as site does not have hydrophytic vegetation or primary indicators of wetland hydrology.

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input 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)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Other (Explain in Remarks)	<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 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):</p> <p>Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches):</p> <p>Saturation Present? (includes capillary fringe) Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches):</p>	Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
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Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:

Remarks: