

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_T17_01
 Investigator(s): SLI, LMF Landform (hillside, terrace, hummocks etc.): Ridgetop
 Local relief (concave, convex, none): undulating Slope: 0.0 % / 0.0 ° Elevation: 1006
 Subregion: Southcentral Alaska Lat.: 62.7965999098 Long.: -148.93490997 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.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum				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>8</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>37.5%</u> (A/B)
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"/>	_____	
Total Cover:		<u>0</u>		Prevalence Index worksheet: Total % Cover of: Multiply by: OBL Species <u>0</u> x 1 = <u>0</u> FACW Species <u>2</u> x 2 = <u>4</u> FAC Species <u>14</u> x 3 = <u>42</u> FACU Species <u>14</u> x 4 = <u>56</u> UPL Species <u>23</u> x 5 = <u>115</u> Column Totals: <u>53</u> (A) <u>217</u> (B) Prevalence Index = B/A = <u>4.094</u>
Sapling/Shrub Stratum 50% of Total Cover: <u>0</u> 20% of Total Cover: <u>0</u>				
1. <u>Dryas octopetala</u>	10	<input checked="" type="checkbox"/>	UPL	
2. <u>Rhododendron lapponicum var. parvifolium</u>	7	<input checked="" type="checkbox"/>	UPL	
3. <u>Diapensia lapponica</u>	5	<input checked="" type="checkbox"/>	UPL	
4. <u>Vaccinium uliginosum</u>	3	<input type="checkbox"/>	FAC	
5. <u>Salix arctica</u>	5	<input checked="" type="checkbox"/>	FACU	
6. <u>Arctostaphylos alpina</u>	5	<input checked="" type="checkbox"/>	FACU	
7. <u>Dasiphora fruticosa</u>	2	<input type="checkbox"/>	FAC	
8. <u>Empetrum nigrum</u>	1	<input type="checkbox"/>	FAC	
9. _____	0	<input type="checkbox"/>	_____	
10. _____	0	<input type="checkbox"/>	_____	
Total Cover:		<u>38</u>		
Herb Stratum 50% of Total Cover: <u>19</u> 20% of Total Cover: <u>7.6</u>				
1. <u>Tofieldia coccinea</u>	3	<input checked="" type="checkbox"/>	FAC	
2. <u>Anemone narcissiflora</u>	1	<input type="checkbox"/>	FACU	
3. <u>Bistorta plumosa</u>	1	<input type="checkbox"/>	FACU	
4. <u>Potentilla biflora</u>	1	<input type="checkbox"/>	UPL	
5. <u>Carex atrofusca</u>	2	<input checked="" type="checkbox"/>	FACW	
6. <u>Anthoxanthum monticola ssp. alpinum</u>	1	<input type="checkbox"/>	FACU	
7. <u>Thalictrum alpinum</u>	1	<input type="checkbox"/>	FAC	
8. <u>Carex fuliginosa</u>	3	<input checked="" type="checkbox"/>	FAC	
9. <u>Carex scirpoidea</u>	1	<input type="checkbox"/>	FACU	
10. <u>Festuca altaica</u>	1	<input type="checkbox"/>	FAC	
Total Cover:		<u>15</u>		
50% of Total Cover:		<u>7.5</u>	20% of Total Cover: <u>3</u>	

Hydrophytic Vegetation Indicators:
 Dominance Test is > 50%
 Prevalence Index is ≤ 3.0
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length x width) 10m
 % Cover of Wetland Bryophytes (Where applicable) _____
 % Bare Ground 20
 Total Cover of Bryophytes 65

Hydrophytic Vegetation Present? Yes No

Remarks: 20% lichen cover. graminoid veg pressed for confirmation.

SOIL

Sampling Point: **SW12_T17_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			
0-1	7.5YR	2.5/1	60						Silty Clay	40% roots
1-7	7.5YR	2.5/1	70						Silty Clay	30% coarse gravels and cobbles to 5in
7-13	10YR	3/1	80	7.5YR	4/6	20	C	M	Sandy Clay	
13-18	10YR	3/4	60						Sandy Clay Loam	f to c sand with 40% coarse gravels

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

Hydric Soil Indicators: <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)	Indicators for Problematic Hydric Soils:³ <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

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (any one is sufficient)</u> <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)	<u>Secondary Indicators (two or more are required)</u> <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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Field Observations: 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? (includes capillary fringe) Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches):	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:
no wetland hydrology indicators