

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_T19_04
 Investigator(s): JGK Landform (hillside, terrace, hummocks etc.): Floodplain
 Local relief (concave, convex, none): concave Slope: 99.9 % / 45.0 ° Elevation: 864
 Subregion: Southcentral Alaska Lat.: 62.7846899093 Long.: -149.522109965 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 checked="" type="radio"/> No <input 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
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: 0			
Sapling/Shrub Stratum	50% of Total Cover: 0	20% of Total Cover: 0	
1. <u>Salix glauca</u>	10	<input checked="" type="checkbox"/>	FAC
2. <u>Salix pulchra</u>	40	<input checked="" type="checkbox"/>	FACW
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: 50			
Herb Stratum	50% of Total Cover: 25	20% of Total Cover: 10	
1. <u>Geranium erianthum</u>	5	<input type="checkbox"/>	FACU
2. <u>Maianthemum racemosum ssp. racemosum</u>	2	<input type="checkbox"/>	FAC
3. <u>Mertensia paniculata</u>	5	<input type="checkbox"/>	FACU
4. <u>Chamerion angustifolium</u>	2	<input type="checkbox"/>	FACU
5. <u>Heracleum maximum</u>	2	<input type="checkbox"/>	FACU
6. <u>Equisetum arvense</u>	5	<input type="checkbox"/>	FAC
7. <u>Calamagrostis canadensis</u>	30	<input checked="" type="checkbox"/>	FAC
8. <u>Artemisia tilesii</u>	1	<input type="checkbox"/>	FACU
9. <u>Anemone richardsonii</u>	1	<input type="checkbox"/>	FAC
10. <u>Sanguisorba menziesii</u>	0.1	<input type="checkbox"/>	FAC
Total Cover: 53.1			
	50% of Total Cover: 26.55	20% of Total Cover: 10.62	

Dominance Test worksheet:
 Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL Species 0 x 1 = 0
 FACW Species 40 x 2 = 80
 FAC Species 48 x 3 = 144
 FACU Species 15 x 4 = 60
 UPL Species 0 x 5 = 0
 Column Totals: 103 (A) 284 (B)
 Prevalence Index = B/A = 2.757

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) 0
 % Bare Ground 0
 Total Cover of Bryophytes 5

Hydrophytic Vegetation Present? Yes No

Remarks: site is transition from open to closed tall willow--tr salala drydil alncr

SOIL

Sampling Point: **SW12_T19_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		
0-2		80					Fibric Organics	20% roots
2-3		80					Hemic Organics	20% roots
3-4		100					Sapric Organics	
4-7	10YR	4/1+	85				Loamy Sand	15% roots
7-14	10YR	4/2	85				Loamy Sand	thin O layer at top semi angular gravel & c
14+								Large 5-7 in diam cobbles (rounded)

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:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (any one is sufficient)</u></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 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><u>Secondary Indicators (two or more are required)</u></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 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 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 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: