

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Matanuska-Susitna Borough Sampling Date: 31-Jul-13
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW13_T155_05
 Investigator(s): WAD, RWM Landform (hillside, terrace, hummocks etc.): abandoned floodplain
 Local relief (concave, convex, none): concave Slope: 5.2 % / 3.0 ° Elevation: 1109
 Subregion: Interior Alaska Mountains Lat.: 63.207262039 Long.: -148.434518218 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: flat abandoned plain at base of riverine gully.	

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>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>80.0%</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>34</u> x 2 = <u>68</u> FAC Species <u>82</u> x 3 = <u>246</u> FACU Species <u>14</u> x 4 = <u>56</u> UPL Species <u>0</u> x 5 = <u>0</u> Column Totals: <u>130</u> (A) <u>370</u> (B) Prevalence Index = B/A = <u>2.846</u>
Sapling/Shrub Stratum 50% of Total Cover: <u>0</u> 20% of Total Cover: <u>0</u>				
1. <u>Salix alaxensis</u>	5	<input type="checkbox"/>	FAC	
2. <u>Salix pulchra</u>	30	<input checked="" type="checkbox"/>	FACW	
3. <u>Empetrum nigrum</u>	55	<input checked="" type="checkbox"/>	FAC	
4. <u>Vaccinium uliginosum</u>	5	<input type="checkbox"/>	FAC	
5. <u>Salix reticulata</u>	5	<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: <u>100</u>				
Herb Stratum 50% of Total Cover: <u>50</u> 20% of Total Cover: <u>20</u>				
1. <u>Swertia perennis</u>	2	<input type="checkbox"/>	FACW	
2. <u>Luzula arcuata</u>	1	<input type="checkbox"/>	FACU	
3. <u>Chamerion latifolium</u>	5	<input checked="" type="checkbox"/>	FAC	
4. <u>Sedum rosea</u>	2	<input type="checkbox"/>	FAC	
5. <u>Chamerion angustifolium</u>	10	<input checked="" type="checkbox"/>	FACU	
6. <u>Calamagrostis canadensis</u>	4	<input checked="" type="checkbox"/>	FAC	
7. <u>Mertensia paniculata</u>	3	<input type="checkbox"/>	FACU	
8. <u>Sanguisorba canadensis</u>	2	<input type="checkbox"/>	FACW	
9. <u>Polemonium acutiflorum</u>	1	<input type="checkbox"/>	FAC	
10. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>30</u>				
50% of Total Cover: <u>15</u> 20% of Total Cover: <u>6</u>				
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 ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)				
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 <u>5</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>				
Remarks: check sweeper.				

SOIL

Sampling Point: **SW13_T155_05**

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		100					Fibric Organics	
1-10	2.5Y	2.5/1	100				Loamy Sand	with 30 percent coarse fragments

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

Hydric Soil Indicators:

Histosol or Histel (A1)
 Histic Epipedon (A2)
 Hydrogen Sulfide (A4)
 Thick Dark Surface (A12)
 Alaska Gleyed (A13)
 Alaska Redox (A14)
 Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils:³

Alaska Color Change (TA4)⁴ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
 Alaska Alpine swales (TA5) Other (Explain in Remarks)
 Alaska Redox With 2.5Y Hue

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 No

Remarks:
 refusal at 10in due to rock. no hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

Surface Water (A1) Inundation Visible on Aerial Imagery (B7)
 High Water Table (A2) Sparsely Vegetated Concave Surface (B8)
 Saturation (A3) Marl Deposits (B15)
 Water Marks (B1) Hydrogen Sulfide Odor (C1)
 Sediment Deposits (B2) Dry-Season Water Table (C2)
 Drift Deposits (B3) Other (Explain in Remarks)
 Algal Mat or Crust (B4)
 Iron Deposits (B5)
 Surface Soil Cracks (B6)

Secondary Indicators (two or more are required)

Water Stained Leaves (B9)
 Drainage Patterns (B10)
 Oxidized Rhizospheres along Living Roots (C3)
 Presence of Reduced Iron (C4)
 Salt Deposits (C5)
 Stunted or Stressed Plants (D1)
 Geomorphic Position (D2)
 Shallow Aquitard (D3)
 Microtopographic Relief (D4)
 FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:

Remarks:
 no hydrology indicators observed except geomorphic position. no rack lines or evidence of flooding.