

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: 1.7 % / 1.0 ° Elevation: 495
 Subregion: Interior Alaska Mountains Lat.: 62.8302299082 Long.: -148.257769972 Datum: WGS84
 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"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION -Use scientific names of plants. List all species in the plot.

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>0</u>				
<u>Sapling/Shrub Stratum</u>	50% of Total Cover: <u>0</u>	20% of Total Cover: <u>0</u>		Prevalence Index worksheet:
1. <u>Salix alaxensis</u>	15	<input checked="" type="checkbox"/>	FAC	Total % Cover of: Multiply by:
2. <u>Salix commutata</u>	5	<input type="checkbox"/>	FAC	OBL Species <u>0</u> x 1 = <u>0</u>
3. <u>Populus balsamifera</u>	30	<input checked="" type="checkbox"/>	FACU	FACW Species <u>0</u> x 2 = <u>0</u>
4. <u>Shepherdia canadensis</u>	2	<input type="checkbox"/>	FACU	FAC Species <u>33</u> x 3 = <u>99</u>
5. <u>Alnus viridis ssp. crispa</u>	2	<input type="checkbox"/>	FAC	FACU Species <u>49</u> x 4 = <u>196</u>
6. _____	0	<input type="checkbox"/>	_____	UPL Species <u>0</u> x 5 = <u>0</u>
7. _____	0	<input type="checkbox"/>	_____	Column Totals: <u>82</u> (A) <u>295</u> (B)
8. _____	0	<input type="checkbox"/>	_____	Prevalence Index = B/A = <u>3.598</u>
9. _____	0	<input type="checkbox"/>	_____	
10. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>54</u>				Hydrophytic Vegetation Indicators:
<u>Herb Stratum</u>	50% of Total Cover: <u>27</u>	20% of Total Cover: <u>10.8</u>		<input type="checkbox"/> Dominance Test is > 50%
1. <u>Hedysarum alpinum</u>	15	<input checked="" type="checkbox"/>	FACU	<input type="checkbox"/> Prevalence Index is ≤ 3.0
2. <u>Lupinus arcticus</u>	2	<input type="checkbox"/>	FACU	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. <u>Eurybia sibirica</u>	2	<input type="checkbox"/>	FAC	<input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
4. <u>Astragalus alpinus</u>	3	<input type="checkbox"/>	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Castilleja caudata</u>	5	<input type="checkbox"/>	FAC	
6. <u>Chamerion latifolium</u>	1	<input type="checkbox"/>	FAC	Plot size (radius, or length x width) <u>10m</u>
7. _____	0	<input type="checkbox"/>	_____	% Cover of Wetland Bryophytes (Where applicable) _____
8. _____	0	<input type="checkbox"/>	_____	% Bare Ground _____
9. _____	0	<input type="checkbox"/>	_____	Total Cover of Bryophytes _____
10. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>28</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
50% of Total Cover: <u>14</u>	20% of Total Cover: <u>5.6</u>			

Remarks: trace astalp, potans, achsib, arttil, rosaci, and soldec. popbal are saplings. early successional colonizers, assume hydrophytic vegetation.

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

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

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:

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

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

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

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? (includes capillary fringe) Yes No Depth (inches):

Wetland Hydrology Present? Yes No

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

Remarks: