

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project Borough/City: Denali Borough Sampling Date: 07-Aug-12
 Applicant/Owner: Alaska Energy Authority Sampling Point: SW12_T15_06
 Investigator(s): CTS, EKJ Landform (hillside, terrace, hummocks etc.): Valley bottom
 Local relief (concave, convex, none): flat Slope: 1.7 % / 1.0 ° Elevation: 768
 Subregion: Interior Alaska Mountains Lat.: 63.362999076 Long.: -148.664779969 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: Slows near small but deep channelized stream in valley bottom	

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>3</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>100.0%</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 pulchra</u>	35	<input checked="" type="checkbox"/>	FACW	Total % Cover of: Multiply by:
2. <u>Vaccinium uliginosum</u>	15	<input checked="" type="checkbox"/>	FAC	OBL Species <u>20</u> x 1 = <u>20</u>
3. <u>Dasiphora fruticosa</u>	0.1	<input type="checkbox"/>	FAC	FACW Species <u>35.1</u> x 2 = <u>70.2</u>
4. <u>Salix barclayi</u>	5	<input type="checkbox"/>	FAC	FAC Species <u>26.2</u> x 3 = <u>78.60</u>
5. _____	0	<input type="checkbox"/>	_____	FACU Species <u>0</u> x 4 = <u>0</u>
6. _____	0	<input type="checkbox"/>	_____	UPL Species <u>0</u> x 5 = <u>0</u>
7. _____	0	<input type="checkbox"/>	_____	Column Totals: <u>81.3</u> (A) <u>168.8</u> (B)
8. _____	0	<input type="checkbox"/>	_____	Prevalence Index = B/A = <u>2.076</u>
9. _____	0	<input type="checkbox"/>	_____	
10. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>55.1</u>				Hydrophytic Vegetation Indicators:
50% of Total Cover: <u>27.55</u>	20% of Total Cover: <u>11.02</u>			<input checked="" type="checkbox"/> Dominance Test is > 50%
<u>Herb Stratum</u>				<input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0
1. <u>Carex aquatilis</u>	20	<input checked="" type="checkbox"/>	OBL	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Carex membranacea</u>	0.1	<input type="checkbox"/>	FACW	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Carex bigelowii</u>	0.1	<input type="checkbox"/>	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. <u>Calamagrostis canadensis</u>	2	<input type="checkbox"/>	FAC	
5. <u>Rumex arcticus</u>	4	<input type="checkbox"/>	FAC	Plot size (radius, or length x width) <u>10m</u>
6. _____	0	<input type="checkbox"/>	_____	% Cover of Wetland Bryophytes (Where applicable) <u>15</u>
7. _____	0	<input type="checkbox"/>	_____	% Bare Ground <u>0</u>
8. _____	0	<input type="checkbox"/>	_____	Total Cover of Bryophytes <u>15</u>
9. _____	0	<input type="checkbox"/>	_____	
10. _____	0	<input type="checkbox"/>	_____	
Total Cover: <u>26.2</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
50% of Total Cover: <u>13.1</u>	20% of Total Cover: <u>5.24</u>			
Remarks:				

SOIL

Sampling Point: **SW12_T15_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			100					Fibric Organics	
2-5	5Y	3/2	80	10YR	4/6	10	C	PL	Fine Loamy Silt 10% roots
5-7	5Y	2.5/1	90						Fine Loamy Silt 10% roots
7-8	5YR	2.5/1	65	7.5YR	3/4	15	C	M	Silt Loam buried organics, 20% roots
8-15	5Y	3/1	60	N	2.5/1	20	D	PL	Sandy Loam 10% 5Y3/1 C/P, 10% roots

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:

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): 1
 Water Table Present? Yes No Depth (inches): 0
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0

Wetland Hydrology Present? Yes No

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

Remarks: