## WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Susitna-Watana Hydroelectric Project	Borough/City:	Matanuska-Susitna Borough	Sampling Date: 18-Aug-15
Applicant/Owner: Alaska Energy Authority		Sampling	g Point: SW15_T319_05
Investigator(s): BAB	Landform (hill	side, terrace, hummocks etc.):	Basin
Local relief (concave, convex, none): concave	Slope: 0.0	% / 0.0 ° Elevation:	
Subregion : Cook Inlet Mountains Lat.	:	Long.:	Datum: WGS84
Soil Map Unit Name:		NWI classifi	ication: PUBH
	ear? Yes ntly disturbed? y problematic?	No (If no, explain in F Are "Normal Circumstances" p (If needed, explain any answe	present? Yes 🔍 No 🔿
SUMMARY OF FINDINGS - Attach site map showing s	ampling point	locations, transects, importa	ant features, etc.
Hydrophytic Vegetation Present? Yes No	Is	the Sampled Area	

within a Wetland?

Yes 

No

Remarks:

Hydric Soil Present?

Wetland Hydrology Present?

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

Yes 🖲

Yes 

No O

No 🔿

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum		% Cover	Species?	Status	Number of Dominant Species
1.		0			That are OBL, FACW, or FAC: (A)
2.		0			Total Number of Dominant Species Across All Strata: 0 (B)
3		0			
4					Percent of dominant Species That Are OBL, FACW, or FAC: 0,0% (A/B)
5.		0			
5	Tatal Cause				Prevalence Index worksheet:
	Total Cover:		(=		Total % Cover of: Multiply by:
Sapling/Shrub Stratum	50% of Total Cover:	0 20%	of Total Cover:	0	OBL Species x 1 =
1		0			FACW Species <u>0</u> x 2 = <u>0</u>
2.		0			FAC Species x 3 =
3.					FACU Species x 4 =
4.		•			UPL Species x 5 =
5.					Column Totals: 0 (A) 0 (B)
6.					
7.					Prevalence Index = B/A = <u>1.000</u>
8.					Hydrophytic Vegetation Indicators:
9.					Dominance Test is > 50%
10.		0			Prevalence Index is $\leq 3.0$
	Total Cover:	0			Morphological Adaptations (Provide supporting data in
Herb Stratum	50% of Total Cover:	0 20%	of Total Cover:	0	Remarks or on a separate sheet)
1		0			$\checkmark$ Problematic Hydrophytic Vegetation (Explain)
2.					<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3.					be present, unless disturbed or problematic.
4.					
5.					Plot size (radius, or length x width) <u>10m</u>
6.		•			% Cover of Wetland Bryophytes (Where applicable)
7.					% Bare Ground 99
8.					Total Cover of Bryophytes
9.					
10.		0			Hydrophytic
	Total Cover:	0			Vegetation
	50% of Total Cover:		of Total Cover:	0	Present? Yes • No O
Demontrat Deve and in such as					1

Bareground is water. trace carex utriculata and spaganium angustifolium. Remarks:

	Color (malet)	~ ~ ~	Rec	0/ Turne 1	2	Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	<u>%</u> Type <sup>⊥</sup>	_ <b>Loc</b> <sup>2</sup>	lexture	кетагкэ
							e <sup>2</sup>
							-
							a <del>-</del>
						P	
		·					
			<b>7.</b>				
<sup>1</sup> Type: C=Conce	entration. D=Depletio	n. RM=Redu				nnel. M=Matrix	
Hydric Soil Ind	licators:		Indicators for Pr	roblematic Hydric S	ioils: <sup>3</sup>		
Histosol or H	listel (A1)		Alaska Color Cl	hange (TA4) <sup>4</sup>		Alaska Gleyed Without H	ue 5Y or Redder
Histic Epiped	don (A2)		Alaska Alpine s	swales (TA5)		Underlying Layer	
Hydrogen Su	ulfide (A4)		Alaska Redox V	With 2.5Y Hue	$\checkmark$	Other (Explain in Remark	ks)
Thick Dark S	Surface (A12)		2 Contradicator of			f watland k	
Alaska Gleye	ed (A13)			f hydrophytic vegetati te landscape position		nary indicator of wetland h esent	ıydrology,
Alaska Redo	. ,					Jun	
Alaska Gleye	ed Pores (A15)		<sup>4</sup> Give details or o	olor change in Rema	ks		
Restrictive Layer	(if present):						
Councie Lago.	(in probline).						
Type:						Hydric Soil Present	:? Yes 🖲 No 🔾
Type: Depth (inches Remarks:						Hydric Soil Present	? Yes ● No ○
Type: Depth (inches Remarks:	s):					Hydric Soil Present	? Yes ● No ○
Type: Depth (inches Remarks:	s): assume hydric soil.					Hydric Soil Present	? Yes ● No ○
Type: Depth (inchest Remarks: nundated pond, a IYDROLOG Wetland Hydro	s): assume hydric soil. SY logy Indicators:						icators (two or more are required)
Type: Depth (inchest Remarks: nundated pond, a <b>IYDROLOG</b> <b>Netland Hydro</b> Primary Indicato	s): assume hydric soil. SY logy Indicators: prs (any one is sufficie					Secondary Indi	icators (two or more are required) ined Leaves (B9)
Type: Depth (inchest Remarks: nundated pond, a <b>IYDROLOG</b> Wetland Hydro Primary Indicato $\overrightarrow{M}$ Surface Wat	s): assume hydric soil. FY blogy Indicators: ors (any one is sufficie ter (A1)	 nt)		/isible on Aerial Imag		Secondary Indi	icators (two or more are required) ined Leaves (B9) Patterns (B10)
Type: Depth (inchest Remarks: nundated pond, a <b>IYDROLOG</b> Vetland Hydro Primary Indicato V Surface Wat High Water	s): assume hydric soil. SY logy Indicators: rrs (any one is sufficie ter (A1) Table (A2)	<u></u>	Sparsely Veg	getated Concave Surfa		Secondary Indi Water Stai Drainage F Oxidized R	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3)
Type: Depth (inchest Remarks: nundated pond, a HyDROLOG Wetland Hydro Primary Indicato Surface Wat High Water Saturation (	s): assume hydric soil. BY logy Indicators: ors (any one is sufficie ter (A1) Table (A2) (A3)	 	Sparsely Veg	getated Concave Surfa s (B15)		Secondary Indi Water Stai Drainage F Oxidized R Presence c	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4)
Type: Depth (inchest Remarks: nundated pond, a <b>HYDROLOG</b> Wetland Hydro Primary Indicato Surface Wat High Water Saturation ( Water Marks	s): assume hydric soil. BY blogy Indicators: ors (any one is sufficient ter (A1) Table (A2) (A3) s (B1)		Sparsely Veg	getated Concave Surfa is (B15) Ilfide Odor (C1)		Secondary Indi Water Stai Drainage F Oxidized R Presence c Salt Depos	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5)
Type: Depth (inchest Remarks: nundated pond, a IYDROLOG Wetland Hydro Primary Indicato Vetland Hydro Primary Indicato Saturation ( Saturation ( Water Marke Sediment Do	s): assume hydric soil. SY logy Indicators: rrs (any one is sufficie ter (A1) Table (A2) (A3) s (B1) eposits (B2)	<u></u>	Sparsely Veg Marl Deposit: Hydrogen Su Dry-Season V	getated Concave Surfa is (B15) ulfide Odor (C1) Water Table (C2)		Secondary Indi Water Stai Drainage F Oxidized R Presence c Salt Depos Stunted or	icators (two or more are required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) r Stressed Plants (D1)
Type: Depth (inchest Remarks: nundated pond, a IYDROLOG Wetland Hydro Primary Indicato Vetland Hydro Primary Indicato Saturation ( Water Marks Sediment D Drift Deposi	s): assume hydric soil. SY logy Indicators: rrs (any one is sufficie ter (A1) Table (A2) (A3) s (B1) eposits (B2) its (B3)	<u>nt)</u>	Sparsely Veg Marl Deposit: Hydrogen Su Dry-Season V	getated Concave Surfa is (B15) Ilfide Odor (C1)		Secondary Indi Secondary Indi Water Stai Drainage F Oxidized R Presence c Salt Depos Stunted or Geomorph	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) r Stressed Plants (D1) ic Position (D2)
Type: Depth (inchest Remarks: nundated pond, a <b>IYDROLOG</b> Wetland Hydro Primary Indicato I Surface Wat High Water Saturation ( Saturation ( Sediment Du Drift Deposi Algal Mat or	s): assume hydric soil. by logy Indicators: ors (any one is sufficient ter (A1) Table (A2) (A3) s (B1) reposits (B2) its (B3) r Crust (B4)		Sparsely Veg Marl Deposit: Hydrogen Su Dry-Season V	getated Concave Surfa is (B15) ulfide Odor (C1) Water Table (C2)		<u>Secondary Indi</u> Water Stai Drainage F Oxidized R Presence c Salt Depos Stunted or Geomorph Shallow Ac	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) r Stressed Plants (D1) ic Position (D2) quitard (D3)
Type: Depth (inchest Remarks: nundated pond, a IYDROLOG Wetland Hydro Primary Indicato Surface Wat High Water Saturation ( Water Marks Sediment Dr Sediment Dr Drift Deposi Algal Mat or Iron Deposi	s): assume hydric soil. by hogy Indicators: ors (any one is sufficient ter (A1) Table (A2) (A3) s (B1) eposits (B2) its (B3) r Crust (B4) its (B5)		Sparsely Veg Marl Deposit: Hydrogen Su Dry-Season V	getated Concave Surfa is (B15) ulfide Odor (C1) Water Table (C2)		Secondary Indi Water Stai Drainage F Oxidized R Presence c Salt Depos Stunted or Geomorph Shallow Ac Microtopog	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) r Stressed Plants (D1) iic Position (D2) quitard (D3) graphic Relief (D4)
Type: Depth (inchest Remarks: nundated pond, a Augustation of the second Primary Indicatoo Primary Indicatoo Surface Wat High Water Saturation ( Water Market Sediment Du Drift Deposi Algal Mat or Iron Deposi Surface Soil	s): assume hydric soil. FY blogy Indicators: ors (any one is sufficient ter (A1) Table (A2) (A3) s (B1) eposits (B2) its (B3) r Crust (B4) its (B5) I Cracks (B6)		Sparsely Veg Marl Deposit: Hydrogen Su Dry-Season V	getated Concave Surfa is (B15) ulfide Odor (C1) Water Table (C2)		Secondary Indi Water Stai Drainage F Oxidized R Presence c Salt Depos Stunted or Geomorph Shallow Ac Microtopog	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) r Stressed Plants (D1) ic Position (D2) quitard (D3)
Type: Depth (inchest Remarks: hundated pond, a Primary Indicato Surface Wate High Water Saturation ( Water Marke Sediment Du Drift Deposi Algal Mat or Iron Deposi Surface Soil Field Observati	s): assume hydric soil. FY Hogy Indicators: ors (any one is sufficient ter (A1) Table (A2) (A3) s (B1) reposits (B2) its (B3) r Crust (B4) its (B5) I Cracks (B6) ions:		Sparsely Veg Marl Deposit: Hydrogen Su Dry-Season N Other (Explain	yetated Concave Surfa (B15) ulfide Odor (C1) Water Table (C2) iin in Remarks)		Secondary Indi Water Stai Drainage F Oxidized R Presence c Salt Depos Stunted or Geomorph Shallow Ac Microtopog	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) r Stressed Plants (D1) iic Position (D2) quitard (D3) graphic Relief (D4)
Type: Depth (inchest Remarks: nundated pond, a Alter pond,	s): assume hydric soil. BY blogy Indicators: rrs (any one is sufficie ter (A1) Table (A2) (A3) s (B1) eposits (B2) its (B3) r Crust (B4) ts (B5) l Cracks (B6) ions: Present? Yes	• No ()	Sparsely Veg Marl Deposit: Hydrogen Su Dry-Season N Other (Expla	getated Concave Surfa is (B15) ulfide Odor (C1) Water Table (C2) iin in Remarks)	ace (B8)	Secondary Indi Water Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ao Microtopog FAC-neutra	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) r Stressed Plants (D1) iic Position (D2) quitard (D3) graphic Relief (D4) al Test (D5)
Type: Depth (inchest Remarks: nundated pond, a IYDROLOG Wetland Hydro Primary Indicato Water Marka Saturation ( High Water Saturation ( Drift Deposi Algal Mat or Drift Deposi Surface Soil Field Observati Surface Water P Water Table Pre	s): assume hydric soil. assume hydric soil. FY blogy Indicators: ors (any one is sufficient ter (A1) Table (A2) (A3) s (B1) eposits (B2) its (B3) r Crust (B4) its (B5) I Cracks (B6) ions: Present? Yes (Compared to the second	<ul> <li>No O</li> <li>No O</li> </ul>	Sparsely Veg Marl Deposit: Hydrogen Su Dry-Season N Other (Explain	getated Concave Surfa is (B15) ulfide Odor (C1) Water Table (C2) iin in Remarks)	ace (B8)	Secondary Indi Water Stai Drainage F Oxidized R Presence c Salt Depos Stunted or Geomorph Shallow Ac Microtopog	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) r Stressed Plants (D1) iic Position (D2) quitard (D3) graphic Relief (D4) al Test (D5)
Type: Depth (inchest Remarks: nundated pond, a Alter pond,	s): assume hydric soil. SY logy Indicators: rrs (any one is sufficie ter (A1) Table (A2) (A3) s (B1) reposits (B2) its (B3) r Crust (B4) its (B5) l Cracks (B6) ions: Present? Yes ( ent? Yes (	• No ()	Sparsely Veg Marl Deposit: Hydrogen Su Dry-Season N Other (Expla	es): 48	ace (B8)	Secondary Indi Water Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ao Microtopog FAC-neutra	icators (two or more are required) ined Leaves (B9) Patterns (B10) thizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) r Stressed Plants (D1) iic Position (D2) quitard (D3) graphic Relief (D4) al Test (D5)