WETLAND DETERMINATION DATA FORM - Alaska Region

	t/Site: Susitna-Watana Hydroelectric Project	Bo	orough/City:	Matanusk	ka-Susitna Borough Sampling Date: 09-Jul-13
Applica	ant/Owner: Alaska Energy Authority				Sampling Point: SW13_T123_02
	gator(s): WAD, BAB	I	Landform (hill	side, terrac	ce, hummocks etc.): pond
Local	relief (concave, convex, none): concave		Slope: 0.0	% / 0.0	O ° Elevation: 959
Subred	gion : Southcentral Alaska	Lat.: 6	 62.750382781		Long.: -149.383560658 Datum: WGS84
	ap Unit Name:		22.70000270		NWI classification: PEM1H
	matic/hydrologic conditions on the site typical for this ti	mo of year?) Vec	● No ○	
			disturbed?		Normal Circumstances" present? Yes No No
		naturally pro			eded, explain any answers in Remarks.)
SUMI	MARY OF FINDINGS - Attach site map show	wing sam	pling point	locations	s, transects, important features, etc.
	Hydrophytic Vegetation Present? Yes No C			41	
	Hydric Soil Present? Yes No C)			ıpled Area /etland? Yes ◉ No ◯
	Wetland Hydrology Present? Yes No C)	Wi	thin a W	retland? res e No e
Rem	narks: photo num 1239,1240				
Tton	photo time 1136				
	<u> </u>				
VEGE	ETATION -Use scientific names of plants. Li	ist all spe	cies in the	plot.	
		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tre	e Stratum	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
1.		0			That are OBL, FACW, or FAC: (A) Total Number of Dominant
2.		0			Species Across All Strata:2(B)
3.		0			Percent of dominant Species
4.		0			That Are OBL, FACW, or FAC: 100.0% (A/B)
5.		0			Prevalence Index worksheet:
	Total Cover				Total % Cover of: Multiply by:
Sap	oling/Shrub Stratum 50% of Total Cover:	0 20%	of Total Cover:	0	OBL Species <u>36</u> x 1 = <u>36</u>
1.		0			FACW Species 0 x 2 = 0
2.					FAC Species <u>5</u> x 3 = <u>15</u>
3.					FACU Species <u>0</u> x 4 = <u>0</u>
4.					UPL Species0 x 5 =0
5.		0			Column Totals:41 (A)51 (B)
6.					Prevalence Index = B/A = 1.244
7.		0			1 revalence index – B/A – 1.244
8.		0			Hydrophytic Vegetation Indicators:
					✓ Dominance Test is > 50%
10.					✓ Prevalence Index is ≤3.0
	Total Cover		of Total Cover	: 0	Morphological Adaptations ¹ (Provide supporting data in
	• Stratum 50% of Total Cover:				Remarks or on a separate sheet)
1.	Carex aquatilis	25	\checkmark	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
1. 2.	Carex aquatilis Eriophorum angustifolium	25 10		OBL OBL	
1. 2. 3.	Carex aquatilis Eriophorum angustifolium Calamagrostis canadensis	25 10 5	\checkmark	OBL OBL FAC	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. 3. 4.	Carex aquatilis Eriophorum angustifolium Calamagrostis canadensis Comarum palustre	25 10 5 1	\checkmark	OBL OBL	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) 10m
1. 2. 3. 4. 5.	Carex aquatilis Eriophorum angustifolium Calamagrostis canadensis Comarum palustre	25 10 5 1	\checkmark	OBL OBL FAC	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) % Cover of Wetland Bryophytes 1
1. 2. 3. 4. 5.	Carex aquatilis Eriophorum angustifolium Calamagrostis canadensis Comarum palustre	25 10 5 1 0	\checkmark	OBL OBL FAC	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) % Cover of Wetland Bryophytes (Where applicable)
1. 2. 3. 4. 5. 6. 7.	Carex aquatilis Eriophorum angustifolium Calamagrostis canadensis Comarum palustre	25 10 5 1 0 0	\checkmark	OBL OBL FAC	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) % Cover of Wetland Bryophytes 1
1. 2. 3. 4. 5. 6. 7. 8.	Carex aquatilis Eriophorum angustifolium Calamagrostis canadensis Comarum palustre	25 10 5 1 0 0	\checkmark	OBL OBL FAC	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) 10m (Where applicable) % Bare Ground
1. 2. 3. 4. 5. 6. 7. 8. 9.	Carex aquatilis Eriophorum angustifolium Calamagrostis canadensis Comarum palustre	25 10 5 1 0 0	\checkmark	OBL OBL FAC	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) 10m % Cover of Wetland Bryophytes 1 (Where applicable) % Bare Ground
1. 2. 3. 4. 5. 6. 7. 8. 9.	Carex aquatilis Eriophorum angustifolium Calamagrostis canadensis Comarum palustre	25 10 5 1 0 0 0 0 0		OBL OBL FAC OBL	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) % Cover of Wetland Bryophytes (Where applicable) % Bare Ground Total Cover of Bryophytes 1

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SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)

Padrox Features

Depth —			ment the indicator or confirm the absence of indicators) Redox Features					
(inches) Color (m	oist)	<u>%</u>	Color (moist) % Type ¹		_Loc_2	Texture	Remarks	
							-	_
								_
						-	-	
							P	
Type: C=Concentration. D		DM-Podus	and Matrix 2 Location	DI - Dor	- Lining D	C_Root Cha	nnal M-Matrix	
	=Depletion.	KM=Reduc					nnei. M=Matrix	
lydric Soil Indicators:			Indicators for Pro		4	oils:	1	
Histosol or Histel (A1) Histic Epipedon (A2)			Alaska Color Ch		-		Alaska Gleyed Without	Hue 5Y or Redder
			Alaska Alpine sı	•	•	✓	Other (Explain in Remains	Underlying Layer
Hydrogen Sulfide (A4)			☐ Alaska Redox W	vitn 2.5Y i	iue	•	Other (Explain in Kenii	11 13)
Thick Dark Surface (A1	<u>'</u>)		³ One indicator of	hydrophyl	tic vegetatio	on, one prim	nary indicator of wetland	l hydrology,
Alaska Gleyed (A13) Alaska Redox (A14)			and an appropriate	e landscap	pe position	must be pre	esent	-
Alaska Gleyed Pores (A	15)		4 Give details of co	olor chang	e in Remarl	ks		
estrictive Layer (if present)								
Type:	•						Hydric Soil Presei	nt? Yes • No O
Depth (inches):							Tryune Son Trese.	165 0 160 0
emarks:	drophytic ve	getation an	d inundation.			I		
emarks: ssume hydric soil due to hy	drophytic ve	getation an	d inundation.			1		
emarks: ssume hydric soil due to hy YDROLOGY		getation an	d inundation.				Cocondany I	disators (two or more are required)
emarks: ssume hydric soil due to hy YDROLOGY Vetland Hydrology Indic	ators:		d inundation.					dicators (two or more are required)
emarks: ssume hydric soil due to hy YDROLOGY /etland Hydrology Indic	ators:			sible on A	erial Image	erv (R7)	Water Si	rained Leaves (B9)
YDROLOGY Vetland Hydrology Indicators (any one Surface Water (A1)	ators:		✓ Inundation Vi		_		Water Si	ained Leaves (B9) e Patterns (B10)
emarks: ssume hydric soil due to hy YDROLOGY /etland Hydrology Indic	ators:		✓ Inundation Vi	etated Cor	_		Water Si Drainage Oxidized	rained Leaves (B9)
YDROLOGY /etland Hydrology Indic rimary Indicators (any one Surface Water (A1) High Water Table (A2)	ators:		✓ Inundation Vi	etated Cor (B15)	ncave Surfa		Water Si Drainage Oxidized Presence	ained Leaves (B9) e Patterns (B10) Rhizospheres along Living Roots (C3)
YDROLOGY Yetland Hydrology Indic Y Surface Water (A1) High Water Table (A2) Saturation (A3)	ators: : is sufficient)		✓ Inundation Vi Sparsely Vege Marl Deposits	etated Cor s (B15) lfide Odor	ncave Surfa		Water Si Drainage Oxidized Presence Salt Dep	rained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) e of Reduced Iron (C4)
YDROLOGY Vetland Hydrology Indic Primary Indicators (any one ✓ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	ators: : is sufficient)		✓ Inundation Vi ☐ Sparsely Vege ☐ Marl Deposits ☐ Hydrogen Sul	etated Cor (B15) fide Odor Vater Tabl	ncave Surfa (C1) e (C2)		Water Si Drainage Oxidized Presence Salt Dep Stunted	rained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) Of Reduced Iron (C4) Osits (C5)
YDROLOGY Vetland Hydrology Indic Primary Indicators (any one ✓ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	ators: is sufficient)		✓ Inundation Vi ☐ Sparsely Vege ☐ Marl Deposits ☐ Hydrogen Sul ☐ Dry-Season V	etated Cor (B15) fide Odor Vater Tabl	ncave Surfa (C1) e (C2)		Water St Drainage Oxidized Presence Salt Dep Stunted Geomore	rained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1)
YDROLOGY Vetland Hydrology Indice Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	ators: is sufficient)		✓ Inundation Vi ☐ Sparsely Vege ☐ Marl Deposits ☐ Hydrogen Sul ☐ Dry-Season V	etated Cor (B15) fide Odor Vater Tabl	ncave Surfa (C1) e (C2)		Water St □ Drainage □ Oxidized □ Presence □ Salt Dep □ Stunted ☑ Geomory □ Shallow	rained Leaves (B9) e Patterns (B10) Rhizospheres along Living Roots (C3) e of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2)
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