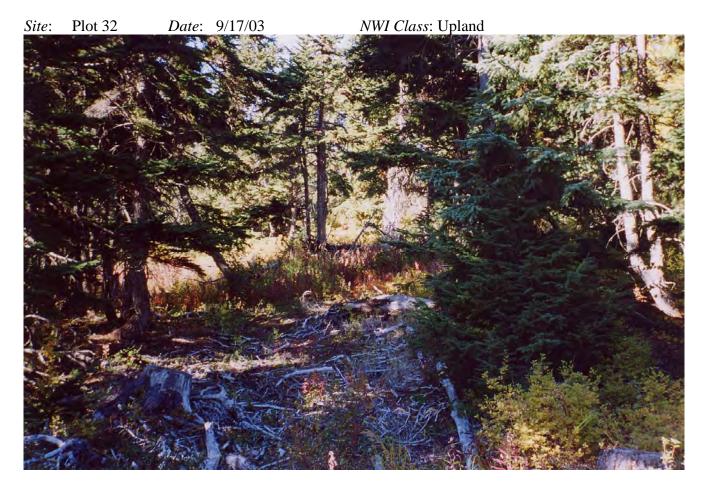




(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project	Date	9/17	7/03						
Applicant / Owner: ADOT&PF	Borough	KPI	3						
Investigators: JDS & AA						State	AK		
Do Normal Circumstances exist on t	he site?				⊠YES □NO	Community ID	Hen fore	nlock, st	spruce
Is the site significantly disturbed (At	ypical Situa	ation)?	•		□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area?	(If needed, e	xplain o	on reverse)		□YES ⊠NO	Plot ID	Plot	32	
Describe Location: Along JC A	Alt, near	wayp	oint jc3	, upla		Service Road			
Plant Species	Stratum	%	Indicato	or	Plant S _I	pecies	Stratum	%	Indicator
1. Tsuga mertensiana*	Т	25	FAC	9	. Rubus pedatu	S	Н	5	
2. Menziesia ferruginea*	S	40	FACU	1	0. Lupinus nooi	tkatensis	Н	5	
3. Betula papyrifera	Т	5		1	1. Sanguisorba	stipulata	Н	Tr	
4. Picea lutzii	Т	7		1	2. Linnaea bore	ealis	S	tr	
5. Viburum edule	S	Tr		1	3. Cornus cana	densis	Н	tr	
6. Chamerion angustifolium *	Н	15	FACU	1	4. Vaccinium v	itis-idaea	Н	tr	
7. Calamagrostis Canadensis*	Н	20	FAC	1	5. Trientalis e	игораеа	Н	tr	
	11	10		1	6. Pyrola asari	folia	Н	tr	
8. Gymnocarpium dryopteris	Н	10		1	7. Lycopodiun	n annotinum	Н	tr	
Percent of Dominant Species that are	OBL, FAC	CW, 01	r FAC (exc	cludin	g FAC-) 50%		·		
Remarks : Some cut down trees in pl									
* Indicates dominants using 50/20 m	etnoa.								
Describe Vegetation Type: Hemlock	spruce up	land fo	orest						
HYDROLOGY									
Recorded Data (Describe in Remarks) Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available					WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits				S
FIELD OBSER	VATIONS	}				ainage Patterns in	wettands		
Depth of Surface Water			N/a	(in)		cators (2 or more I	-	er 12 Iı	nches
Depth to Free Water in Pit			N/a	(in)	Local Soil Survey Data				
Depth to Saturated Soil						FAC-Neutral Test Other (Explain in Remarks)			

Map Unit Name (S	eries and Phase):	Drainage Class:			
Taxonomy (Subgro	oup)		Field Observations C	Confirm Mapped Type?	YES NO
		PROFII	LE DESCRIPTION		
Depth (inches)	Horizon	Matrix Color* (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	A	7.5YR3/2			Loam
2-3	Е	7.5YR6/1			Silt loam
3-10	В	10YR4/4			Loam
10-23	С	10YR4/4			Sandy loam
		HYDRIC	SOIL INDICATORS:		
Reducing C	sture Regime		Listed on Listed on	treaking in Sandy Soils Local Hydric Soils List National Hydric Soils Li plain in Remarks)	st
Remarks: *Soil colors taken of Major root zone: up					
WETLAND DE	ΓERMINATION	N			
Hydrophytic Veget	tation Present?	☐YES ⊠ NO			
Wetland Hydrolog	y Present?	YES NO	Is this Sampling Poi	int Within a Wetland?	YES NO
Hydric Soils Preser	nt?	☐YES ⊠ NO			
Remarks:		·	·		
GPS: Trimble plot Topography: NWI Class: Upland HGM Type: Photos: yes Functions:					





Site: Plot 32 Date: 9/17/03 NWI Class: Upland



(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project MP 45 - 60	Date	9-17-03
Applicant / Owner: ADOT&PF	Borough	KPB
Investigators: JDS & AA	State	AK
Do Normal Circumstances exist on the site?	Community ID	Spruce, alder forest
Is the site significantly disturbed (Atypical Situation)?	Transect ID	-
Is the area a potential Problem Area? (If needed, explain on reverse)	Plot ID	Plot 33

Describe Location: 10 metres east of waypoint n5. VEGETATION

Plant Species	Stratum	%	Indicator	Plant Species	Stratum	%	Indicator
1. Equisetum pratense*	Н	70	FACW	9. monkshood sp.	Н	Tr	
2. Empetrum nigrum	S	7		10. Sanguisorba stipulata	Н	Tr	
3. Vaccinium oxycoccos	S	Tr		11. Picea glauca*	Т	10	FACU
4. Linnaea borealis	S	Tr		12. Salix barclayi	S	Tr	
5. Potentilla fruticosa	S	8		13. Cornus canadensis	Н	Tr	
6. Ledum palustre decumbens *	S	10	FACW	14. Calamagrostis canadensis	Н	Tr	
7. Rosa acicularis	S	Tr		15 Carex sp.	Н	Tr	
				16. Grass sp.	Н	Tr	
8. Vaccinium vitis-idaea	S	6		17. Alnus viridis sinuata*	S	15	FAC

18. Picea mariana*

FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 80%

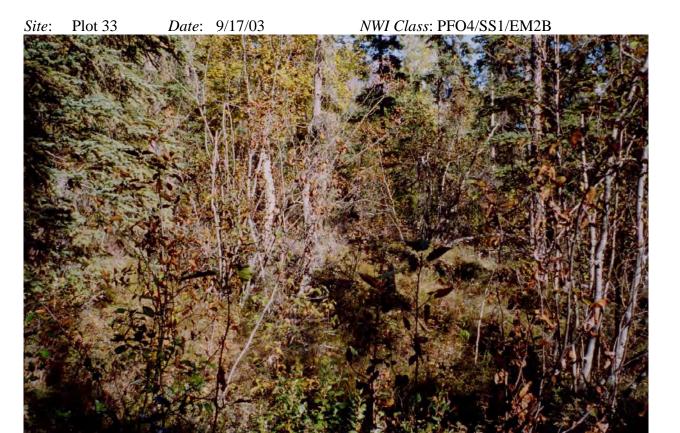
Remarks: * Indicates dominants using 50/20 method.

Describe Vegetation Type: White and black spruce and alder. Several dead spruce in plot.

HYDROLOGY

Recorded Data (Describe in R Stream, Lake, or Tide Gath Aerial Photographs Other No Recorded Data Available	,		WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands			
FIELD OBSERV	ATIONS					
Depth of Surface Water	N/a (i	n)	Secondary Indicators (2 or more Required): Oxidized Root Channels in Upper 12 Inches			
Depth to Free Water in Pit	N/a (i	n)	Water-Stained Leaves Local Soil Survey Data			
Depth to Saturated Soil	0 (i	n)	☐ State of the American State of the Ameri			

OILS								
Map Unit Name (Series and Phase):			Drainage Class:				
Taxonomy (Subgr	roup)		Field Observations C	Confirm Mapped Type? [YES NO			
		PROFIL	LE DESCRIPTION					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-3	Oi		, ,					
3-8	Oe							
8-16	Oa							
		HYDRIC S	SOIL INDICATORS:					
Reducing	isture Regime Conditions Low-Chroma Colors		Listed on Listed on	treaking in Sandy Soils Local Hydric Soils List National Hydric Soils List plain in Remarks)	st			
Major root zone: ι	upper 7"							
WETLAND DE	CTERMINATION	N						
Hydrophytic Vege	etation Present?	YES NO						
Wetland Hydrolog	gy Present?	⊠YES □ NO	Is this Sampling Po	int Within a Wetland?	YES NO			
Hydric Soils Pres	ent?	YES NO						
Remarks:								
GPS: Trimble plo Topography: NWI Class: PFO4 HGM Type: flat Photos: yes Functions:								





(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project MP 45 - 60		Date	9-18-03
Applicant / Owner: ADOT&PF		Borough	KPB
Investigators: JDS & AA		State	AK
Do Normal Circumstances exist on the site?	⊠YES □NO	Community ID	Alder thicket
Is the site significantly disturbed (Atypical Situation)?	□YES ⊠NO	Transect ID	-
Is the area a potential Problem Area? (If needed, explain on reverse)	□YES ⊠NO	Plot ID	Plot 34
Describe I continue In alder thicket mean waymaint al		_	-

Describe Location: In alder thicket near waypoint g1 VEGETATION

, = 0= 1111101 ;							
Plant Species	Stratum	%	Indicator	Plant Species	Stratum	%	Indicator
1. Alnus viridis sinuata *	S	55	FAC	9. Sanguisorba stipulata	Н	Tr	
2. Calamagrostis canadensis*	Н	25	FAC	10. Viola sp.	Н	Tr	
3. Polemonium sp.(tall)	Н	5		11. Streptopus amplexifolius	Н	Tr	
4. Athyrium filix-femina	Н	Tr		12. Sambucus racemosa	S	Tr	
5. Picea lutzii*	T	5	NI	13. Rosa acicularis	S	Tr	
6. Equisetum pretense*	Н	30	FACW	14. Cornus canadensis	Н	Tr	
7. Ribes sp.	S	Tr		15 Chamerion angustifolium	Н	Tr	
8. <i>Polemonium</i> sp.(small)	Н	tr		16. Rubus spectabilis	S	Tr	
o. 1 otemonium sp.(sman)	11	u		17. Galium triflorum	Н	tr	

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100%

Remarks: some dead spruce in plot * Indicates dominants using 50/20 method.

Describe Vegetation Type: Alder thicket

HYDROLOGY

Recorded Data (Describe in R Stream, Lake, or Tide Gat Aerial Photographs Other No Recorded Data Available	uge	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands				
FIELD OBSERV	ATIONS		Drainage Patterns in Wetlands			
Depth of Surface Water	N/a	(in)	Secondary Indicators (2 or more Required): Oxidized Root Channels in Upper 12 Inches			
Depth to Free Water in Pit	15	Water-Stained Leaves Local Soil Survey Data				
Depth to Saturated Soil	0	(in)	FAC-Neutral Test Other (Explain in Remarks)			

JOILS								
Map Unit Name (Se	eries and Phase):			Drainage Class:				
Taxonomy (Subgro	oup)		Field Observations C	Field Observations Confirm Mapped Type? YES NO				
		PROFII	LE DESCRIPTION					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-23	Oi							
·		1						
<u> </u>		HYDRIC	SOIL INDICATORS:					
	lor sture Regime		Organic Solution Listed on	High Organic Content in Surface Layer in Sandy Soils Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks)				
Remarks: Major root zone: up	pper 6"							
WETLAND DE?	TERMINATION	.						
Hydrophytic Veget	tation Present?	⊠YES □ NO						
Wetland Hydrology	y Present?	YES NO	Is this Sampling Poi	int Within a Wetland?	YES NO			
Hydric Soils Preser	nt?	⊠YES □ NO						
Remarks:			•					
GPS: Trimble 34 Topography: NWI Class: PSS1/ HGM Type: flat Photos: yes Functions: see func								

Site: Plot 34 Date: 9/18/03 NWI Class: PSS1/EM2B





Site: Plot 34 Date: 9/18/03 NWI Class: PSS1/EM2B



(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Proje	Date	9/19	0/03							
Applicant / Owner: ADOT&PF							Borough KPB			
Investigators: JDS & LR							State	AK		
Do Normal Circumstances exist on the	ne site?				XYE		Community ID Sedge and grass meadow			grass
Is the site significantly disturbed (At	ypical Situa	ation)?			_YE ⊠NO		Transect ID	-		
Is the area a potential Problem Area?	(If needed, e	xplain o	n reverse)		YE XNO	ES	Plot ID	Plot	39	
Describe Location: VEGETATION										
Plant Species	Stratum	%	Indicator			Plant S	pecies	Stratum	%	Indicator
1. Picea mariana	T	tr		9. C	Cala	amagrosti	is canadensis	Н	7	
2. Betula nana*	S	6	FAC	10.	Car	rex sp		Н	10	
3. Salix barclayi	S	tr		11.	Cor	marum po	alustre	Н	tr	
4. Empetrum nigrum	S	tr		12.	Eqi	uisetum a	rvense	Н	r	
5. Ledum palustre decumbens	S	tr		13.	Rul	bus cham	aemorus	S	tr	
6. Alnus viridis sinuata*	S	10	FAC	14.5	Sph	agnum m	oss	В	85	
7. Vaccinium vitis-idaea	S	tr		15	Erij	phorum c	hamissonis	Н	10	
8. Eriphorum angustifolium*	Н	30	OBL		16. Chamaedaphne calyculata			S	tr	
				17.	17. Carex pauciflora			Н	tr	
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling F	FAC-	-) 100%		<u> </u>		
Remarks: Several dead spruce in plo										
* Indicates dominants using 50/20 m	etnoa.									
Describe Vegetation Type: Sedge, co	ttongrass n	neadov	V							
HYDROLOGY										
					WETLAND HYDROLOGY INDICATORS					
Recorded Data (Describe in	ĺ]	Primary Indicators:					
Stream, Lake, or Tide G	auge					=	ındated	0.1		
Aerial Photographs Other						=	turated in Upper 1 ater Marks	2 Inches		
No Recorded Data Available	la.					=	ift Lines			
No Recorded Data Available	le						diment Deposits			
FIELD OBSERVATIONS						∐Dr	ainage Patterns in	Wetlands		
Depth of Surface Water N/a (in)					Seco	<u> </u>	cators (2 or more ladiced Root Chan	-	om 12 Iv	a chao
Depth to Free Water in Pit 10 (in)						W:	ater-Stained Leave cal Soil Survey Da	es	∪1 1∠ II	iciics
Depth to Saturated Soil			0 (in	1)		=	AC-Neutral Test her (Explain in Re	marks)		
Lemarks:										

OILS								
Map Unit Name (S	eries and Phase):			Drainage Class:				
Taxonomy (Subgro	oup)		Field Observations C	ld Observations Confirm Mapped Type? YES NO				
		PROFII	LE DESCRIPTION					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-9	Oi							
9-16	Oe							
		HYDRIC	SOIL INDICATORS:					
Sulfidic Oc Aquic Moi Reducing C Gleyed or I Remarks: large roc Major root zone: up	sture Regime Conditions Low-Chroma Colors k at 10".		Listed on Listed on L	treaking in Sandy Soils Local Hydric Soils List National Hydric Soils Lis plain in Remarks)	st			
WETLAND DE	TERMINATION	[
Hydrophytic Vege	tation Present?	YES NO						
Wetland Hydrolog	y Present?	YES NO	Is this Sampling Poi	int Within a Wetland?	∑ YES □ NO			
Hydric Soils Prese	nt?	⊠YES □ NO						
Remarks:								
GPS: Trimble plot Topography: flat NWI Class: PEM1 HGM Type: flat Photos: Functions: see func	С							







(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Proje	ct MP 45 -		Date 9/18/03					
Applicant / Owner: ADOT&PF					Borough	KPE	3	
Investigators: JDS & AA	State	AK						
Do Normal Circumstances exist on the	⊠YES □NO	Community ID	Black spruce wetland					
Is the site significantly disturbed (At	ypical Situa	ation)?		□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area?	(If needed, e	xplain o	□YES ⊠NO	Plot ID	Plot	35		
Describe Location: Along G all VEGETATION	t, northe	g1, on waypoint	, and no Triml	ole readii	ng			
Plant Species	Stratum	%	Indicator	Plant S ₁	pecies	Stratum	%	Indicator
1. Picea mariana*	T	40	FACW	9. Equisetum pro	atense*	Н	15	FACW
2. Empetrum nigrum*	S	20	FAC	10. Equisetum sy	ylvaticum	Н	tr	
3. Salix sp.	S	Tr		11.				
4. Ledum palustre decumbens *	S	25	FACW	12.				
5. Betula nana	S	Tr		13.				
6. Vaccinium vitis-idaea	S	5		14.				
7. Vaccinium alakaense	S	Tr		15				
8. Equisetum arvense*	Н	15	FACU	16. Spahgnum m	noss	В	tr	
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling FAC-) 80%				
Remarks: * Indicates dominants using 50/20 me Describe Vegetation Type: Black spr		d						
HYDROLOGY								
Recorded Data (Describe in Stream, Lake, or Tide G Aerial Photographs Other No Recorded Data Available	Primary Indicat Inu Sat Wa Dri	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits						
FIELD OBSER	VATIONS			ainage Patterns in	vv ctiands			
Depth of Surface Water				cators (2 or more I	_	er 12 Ir	nches	
Depth to Free Water in Pit			N/a (ii		ater-Stained Leave cal Soil Survey Da	s	<i>.</i> 1211	iches
Depth to Saturated Soil			3 (ii		.C-Neutral Test her (Explain in Re	marks)		

SOILS								
Map Unit Name (S	Series and Phase):			Drainage Class:				
Taxonomy (Subgr	oup)		Field Observations Confirm Mapped Type? YES NO					
		PROFI	LE DESCRIPTION					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-7	Oi							
7-13	A	7.5YR3/2			loam			
13-19	В	7.5YR 4/1 (70%)			Silty clay loam with some coarse gravels			
		7.5YR4/4 (30%)						
		HYDRIC	SOIL INDICATORS:		1			
Reducing Gleyed or Remarks: Not sure if B horiz			Listed on Other (Ex	Local Hydric Soils List National Hydric Soils Li plain in Remarks) Vegetation and hydrolog				
VETLAND DE	TERMINATIO	V						
Hydrophytic Vege		YES NO						
Wetland Hydrolog	gy Present?	YES NO	Is this Sampling Po	int Within a Wetland?	X YES NO			
Hydric Soils Prese		YES NO						
Remarks:								
GPS: Lynn's gps of Topography: NWI Class: PFO4 HGM Type: flat Photos: yes Functions: no form	A/SS1/EM2B							

Site: Plot 35 Date: 9/18/03 NWI Class: PFO4/SS1/EM2B





(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project		Date 9/18/03								
Applicant / Owner: ADOT&PF							Borough	KPE	3	
Investigators: JDS & AA		State	State AK							
Do Normal Circumstances exist on the	ES IO	Community ID	ID Black spruce wetland							
Is the site significantly disturbed (Atyp	oical Situa	ation)?			$\overline{\boxtimes}$ N		Transect ID	-		
Is the area a potential Problem Area? (If needed, e	xplain o	n reverse)		□Y ⊠N	ES IO	Plot ID	Plot	36	
Describe Location: VEGETATION										
Plant Species	Stratum	%	Indicat	or		Plant Sp	pecies	Stratum	%	Indicator
1. see form for plot 35				9.						
2. plus:				10	0.					
3. Rubus chamaemorus	Н	Tr		1	1.					
4.				12	2.					
5.				13	3.					
6.				14	4.					
7.				13	5					
8.				10	6.					
Percent of Dominant Species that are C	OBL, FAC	CW, or	FAC (ex	cluding	g FAC	C-)				
* Indicates dominants using 50/20 met Describe Vegetation Type: Same vegetation Type: S		pot 35	– black s	pruce f	orest					
Recorded Data (Describe in Remarks) Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available						WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits				S
FIELD OBSERV			⊠Dra	ainage Patterns in	wettands					
Depth of Surface Water N/a (in)						_	cators (2 or more I	_	er 12 Iı	nches
Depth to Free Water in Pit N/a (in)						Oxidized Root Channels in Upper 12 Inches Water-Stained Leaves Local Soil Survey Data FAC-Neutral Test				
Depth to Saturated Soil			0	(in)		=	her (Explain in Re	marks)		

Map Unit Name (S	Series and Phase):			Drainage Class:					
Taxonomy (Subgr			Field Observations (Confirm Mapped Type?					
Turonomy (Buegi		PP.OFI	LE DESCRIPTION	_ TES NO					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.				
0-6	Oi								
6-23	В	G1 5/10Y	7.5 YR4/6	Prominent, many, medium	Silty clay loam				
		HYDRIC	SOIL INDICATORS:						
Reducing	isture Regime Conditions Low-Chroma Colors con is saturated		Listed on Listed on	Streaking in Sandy Soils Local Hydric Soils List National Hydric Soils Lis splain in Remarks)	t				
WETLAND DE	ETERMINATIO	N							
Hydrophytic Vege	etation Present?	YES NO							
Wetland Hydrolog	gy Present?	⊠YES □ NO	Is this Sampling Po	int Within a Wetland?	∑ YES □ NO				
Hydric Soils Press Remarks:	ent?	YES NO							
GPS: Topography: NWI Class: PFO4 HGM Type: flat Photos: yes Functions: no for									





(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Proje		Date	9/19	9/03					
Applicant / Owner: ADOT&PF	Borough	Borough KPB							
Investigators: BPB & AA						State	AK		
Do Normal Circumstances exist on the	ne site?			,	∑YES □NO	Community ID	Community ID Hemlock forest		
Is the site significantly disturbed (Aty	pical Situa	ation)?			□YES ⊠NO	Transect ID	ansect ID -		
Is the area a potential Problem Area?	(If needed, e.	xplain o	n reverse)		 □YES ⊠NO	Plot ID	Plot	40	
Describe Location: Near waypo VEGETATION									
Plant Species	Plan	Species	Stratum	%	Indicator				
1. Tsuga mertensiana*	T	40	FAC	9. (Orthilia sed	cunda*	Н	7	FACU
2. Picea lutz*	T	15	NI	10.	Equisetum	sylvaticum	Н	tr	
3. Menziesia ferruginea*	S	40	FACU	11.					
4. Vaccinium vitis-idaea	S	5		12.					
5. Empetrum nigrum	S	5		13.					
6. Rubus pedatus*	Н	5	FAC	14.					
7. Cornus canadensis	Н	tr		15					
8. Geocaulon lividum*	Н	7	FACU	16.					
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling l	FAC-) 33%				
Remarks: * Indicates dominants using 50/20 me	ethod.								
Describe Vegetation Type: hemlock f									
HYDROLOGY	orest								
Recorded Data (Describe in 1	Damarlaa)				WETLAND HYDROLOGY INDICATORS				
					Primary Indi				
Stream, Lake, or Tide G Aerial Photographs	auge					Inundated Saturated in Upper 1	2 Inches		
Other						Water Marks	2 menes		
No Recorded Data Availabl	0				=	Drift Lines			
No Recorded Data Available	C					Sediment Deposits			
FIELD OBSER	VATIONS					Drainage Patterns in	Wetlands		
			N/a (ir						
Depth of Surface Water	1)	i i	ndicators (2 or more Oxidized Root Chan	-	or 10 Is	nahas			
Depth to Free Water in Pit			n/a (ir	1)		Water-Stained Leave Local Soil Survey D	es	ei 12 ii	iches
Depth to Saturated Soil			n/a (ir	n)	=	FAC-Neutral Test Other (Explain in Re	emarks)		

JOILS								
Map Unit Name ((Series and Phase):			Drainage Class:				
Taxonomy (Subg	roup)		Field Observations Confirm Mapped Type? YES NO					
		PROFII	E DESCRIPTION					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)					
4-0	Oi							
0-3	A							
3-8	B1	7.5YR 4/1 (60%)			Loam			
		10YR 4/4 (40%)						
8-13	B2	10 YR 3/4			Sandy loam			
		HYDRIC	SOIL INDICATORS:					
Reducing Gleyed or	oisture Regime Conditions r Low-Chroma Colors	B2 (many). Soil colors	Listed on Listed on Other (Ex	treaking in Sandy Soils Local Hydric Soils List National Hydric Soils L plain in Remarks)	ist			
Major root zone:	upper 6"							
WETLAND DI	ETERMINATION	N						
Hydrophytic Veg	getation Present?	☐YES ⊠ NO						
Wetland Hydrolo	ogy Present?	☐YES ⊠ NO	Is this Sampling Po	int Within a Wetland?	YES NO			
Hydric Soils Pres	sent?	☐YES ⊠ NO						
Remarks: moose	pellets and 2 gray jay	vs .						
GPS: garmin plot Topography: NWI Class: U HGM Type: U Photos: yes Functions:	t jc01							





(1987 COE Wetlands Delineation Manual)

						T			
Project/Site: Sterling Highway Proje	ct MP 45 -	60				Date	9/18	3/03	
Applicant / Owner: ADOT&PF						Borough	KPI	3	
Investigators: JDS & AA						State	AK		
Do Normal Circumstances exist on the			⊠YES □NO	Community ID	Ald	Alder floodplain			
Is the site significantly disturbed (At	ypical Situa	ation)?			□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area?	Is the area a potential Problem Area? (If needed, explain on reverse)							38	
Describe Location: Along G al					⊠no C reek floodpl	ain. Approx 5	0' west o	f Jun	eau Creek.
Site flagged with wetland flagg VEGETATION	ing to m	ark a	rtifact site	е.					
Plant Species	Stratum	%	Indicator		Plant S	necies	Stratum	%	Indicator
1. Alnus viridis sinuata*	Stratum	55	FAC	0	Polemonium		Н		mulcator
2. Calamagrostis	<u>.</u>	33	FAC	9.	r otemonium	sp.	П	tr	
Canadensis*	Н	50	FAC	10	. Thalictrum s	sparsiflorum	Н	tr	
3. Salix barclayi	S	5		11	. Heracleum r	naximum	Н	tr	
4. Salix alaxensis	S	tr		12	Ribes sp.		S	tr	
5. Artemisia tilesii	Н	tr		13	. Equisetum p	ratense	Н	10	
6. Mertensia paniculata	Н	H tr 14.							
7. Picea lutzii	T	tr		15					
8. Oplopanax horridus	Н	5		16	j.				
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclu	ding	FAC-) 100%				
Remarks: * Indicates dominants using 50/20 me	athod								
_									
Describe Vegetation Type: alder thic	ket								
HYDROLOGY				<u> </u>					
					WETL	AND HYDROLO	GY INDICA	ATORS	S
Recorded Data (Describe in	Remarks)				Primary Indica	tors:			
Stream, Lake, or Tide G	auge					undated			
Aerial Photographs						turated in Upper 1	2 Inches		
Other						ater Marks rift Lines			
No Recorded Data Available	e				_	diment Deposits			
						rainage Patterns in	Wetlands (several)
FIELD OBSER									
Depth of Surface Water	n)	<u> </u>	cators (2 or more	•					
Dards to Fran Weter 's P'			NT/- /*			xidized Root Chan ater-Stained Leave		er 12 Iı	nches
Depth to Free Water in Pit			N/a (i	n)	_	ocal Soil Survey Da C-Neutral Test	ata		
Depth to Saturated Soil			5 (i	n)	=	her (Explain in Re	emarks)		

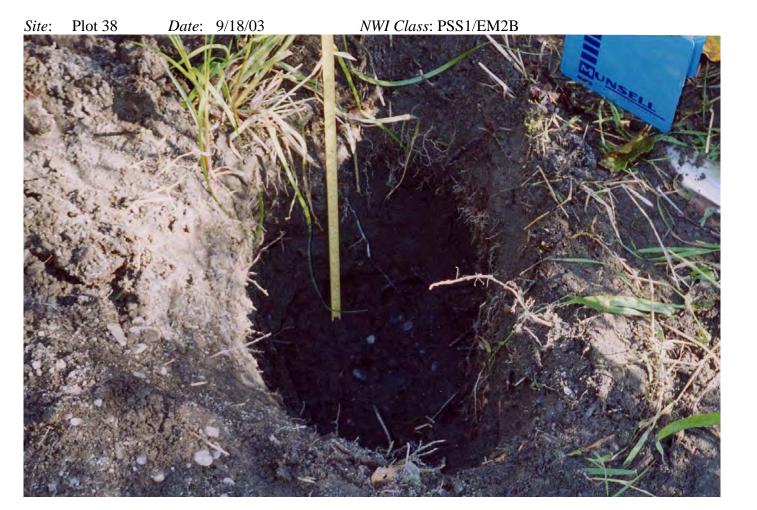
Remarks: Topography is generally flat. Many drainages present with evidence of past flooding events.

SUILS									
Map Unit Name (S	Series and Phase):			Drainage Class:					
Taxonomy (Subgr	roup)		Field Observations C	Confirm Mapped Type?	YES NO				
	<u> </u>	PROFI	LE DESCRIPTION	E DESCRIPTION					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.				
0-13	A	10YR3/1			Fine sand with gravels				
13-19	В	10YR3/1			Sandy loam (more gravels and larger colluvial deposits)				
_									
Reducing Gleyed or Remarks: B horize Artifact found at 1 pit – is the site too Major root zone: u	Odor Disture Regime Conditions Low-Chroma Colors on has 1" diameter ro 13" in soil pit, no other active as floodplain upper 12".	s ocks and larger throughouer artifacts or surface features?	Organic S Listed on Listed on Cother (Exports) Dut. atures observed in or ar	anic Content in Surface L Streaking in Sandy Soils Local Hydric Soils List National Hydric Soils Li Eplain in Remarks)					
Hydrophytic Vege	ETERMINATIO	YES NO	<u> </u>						
Wetland Hydrolog		YES NO	Is this Sampling Po-	int Within a Wetland?	⊠ YES □ NO				
Hydric Soils Prese		YES NO	\dashv	ill willin a welland.					
Remarks:	Sitt.								
Topography: NWI Class: PSS1/ HGM Type: riveri Photos: yes	/EM2B rine	I small garmin gps. Site		Juneau Creek. n in Juneau Creek. Flood	lplain functions.				

Site: Plot 38 Date: 9/18/03 NWI Class: PSS1/EM2B







(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project	Date 9/19/03							
Applicant / Owner: ADOT&PF	Borough	KPE	3					
Investigators: JDS & LR					State	AK		
Do Normal Circumstances exist on the	ne site?			⊠YES □NO	Community ID	fore	sted we	etland
Is the site significantly disturbed (At	ypical Situa	ation)?		□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area?	(If needed, e	xplain o	n reverse)	□YES ⊠NO	Plot ID	Plot	41	
Describe Location: Near wayp VEGETATION	oint F4 a	long	JCF alt.					
Plant Species	Stratum	%	Indicator	Plant S	pecies	Stratum	%	Indicator
1. Picea lutzii*	T	30	NI	9. Rubus chama	emorus	S	tr	
2. Alnus viridis sinuata*	S	55	FAC	10. tufted sedge	(c)*	Н	35	Assumed FAC or wetter
3. Salix barclayi*	S	25	FAC	11. cottongrass	single	Н	5	
4. Sanguisorba stipulata	Н	5		12. Cornus cana	idensis	Н	5	
5. Betula papyrifera	T	Tr		13. Vaccinium v		S	5	
6. Spireaea stevenii*	S	25	FAC	14. Ledum palus decumbens	stre	S	5	
7. Calamagrostis canadensis	Н	7		15 Equisetum pr	ratense	Н	tr	
8. Comarum palustre	Н	tr		16.				
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling FAC-) 100%				
Remarks: * Indicates dominants using 50/20 m	ethod.							
Describe Vegetation Type:								
HYDROLOGY								
Recorded Data (Describe in Stream, Lake, or Tide C Aerial Photographs Other No Recorded Data Availab	Primary Indica Int Sa Wi	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands						
FIELD OBSER	VATIONS			C				
Depth of Surface Water				cators (2 or more I	-	er 12 Ir	nches	
Depth to Free Water in Pit			n/a (ir		ater-Stained Leave cal Soil Survey Da AC-Neutral Test	s (potential		
Depth to Saturated Soil			3 (in		her (Explain in Re	marks)		

Map Unit Name ((Series and Phase):	Drainage Class:	Drainage Class:					
Taxonomy (Subg			Field Observations C	s Confirm Mapped Type? YES NO				
		PROFII	LE DESCRIPTION	11 71 -				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-7	Oi	,	, ,					
7-14	Oe							
14-20	Oa							
_								
		HYDRIC	SOIL INDICATORS:					
Reducing	oisture Regime Conditions r Low-Chroma Colors		Listed on Listed on	streaking in Sandy Soils Local Hydric Soils List National Hydric Soils List plain in Remarks)	st			
WETLAND DI	ETERMINATION	I						
Hydrophytic Veg	getation Present?	YES NO						
Wetland Hydrolo	ogy Present?	⊠YES □ NO	Is this Sampling Po	int Within a Wetland?	YES NO			
Hydric Soils Pres	sent?	⊠YES □ NO						
Remarks:								
GPS: Trimble plot Topography: flat NWI Class: PFO HGM Type: flat Photos: Functions: see fu	O4/SS1/EM1B							

Site: Plot 41 Date: 9/19/03 NWI Class: PFO4/SS1/EM1B





Site: Plot 41 Date: 9/19/03 NWI Class: PFO4/SS1/EM1B

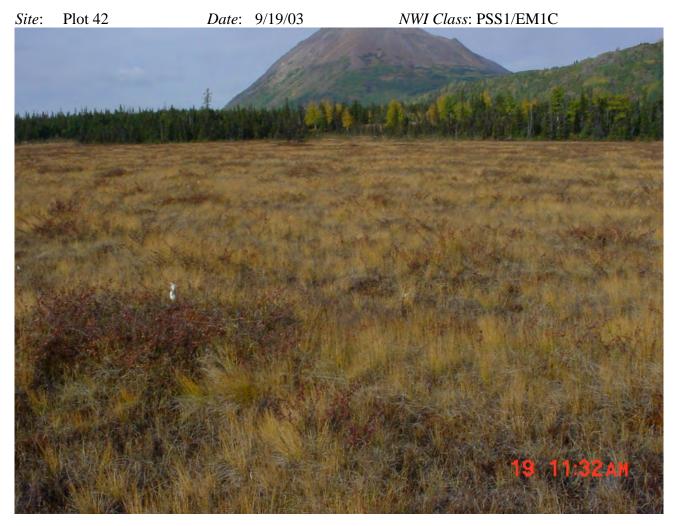


(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project	ect MP 45 -	60		Date	9/19	9/03			
Applicant / Owner: ADOT&PF						Borough	KPI	3	
Investigators: BPB & AA						State	AK		
Do Normal Circumstances exist on t	he site?		⊠YES □NO	Community ID	D Sedge meadow				
Is the site significantly disturbed (At	ypical Situa	ation)?	1		□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area	(If needed, e	xplain o	n reverse)		□YES ⊠NO	Plot ID	Plot	42	
Describe Location: Near wayp VEGETATION	oint JC ()6.							
Plant Species	Stratum	%	Indicato	or	Plant S ₁	pecies	Stratum	%	Indicator
1. Betula nana*	S	12	FAC	9	. Platanthera d	lilatata	Н	tr	
2. Ledum palustre decumbens*	S	7	FACW	1	0. cottongrass	sp.	Н	8	
3. Andromeda polifolia	S	5		1	1. Pedicularis s	sp. (dead)	Н	5	
4. Vaccinium oxycoccos	S	5		1	2.				
5. Carex pauciflora*	Н	40	OBL	1	3.				
6. Carex aquatilis	Н	15		1	4.				
7. Carex sp. wirey*	Н	20	Assumed FAC or wetter	1.	5				
8. Carex sp.	Н	5		1	6.				
Percent of Dominant Species that are	OBL, FAC	CW, or	: FAC (exc	eluding	g FAC-) 100%				
Remarks: * Indicates dominants using 50/20 m	ethod	_	_	_			_	_	_
_									
Describe Vegetation Type: sedge me HYDROLOGY	adow with	shrubb	y higher	mound	is				
HIDROLOGI									
	- 1)				WETLA	AND HYDROLO	GY INDICA	ATORS	;
Recorded Data (Describe in	,				Primary Indicat				
Stream, Lake, or Tide C	lauge					ındated	2 I		
Aerial Photographs Other						turated in Upper 1: ater Marks	2 Inches		
	1					ift Lines			
☐ No Recorded Data Availab	ie				Sec	diment Deposits			
FIELD OBSER			Dr	ainage Patterns in	Wetlands				
Depth of Surface Water	N/a	(in)	_	cators (2 or more 1	_	10.1	•		
						xidized Root Chanı ater-Stained Leave		er 12 Ir	iches
Depth to Free Water in Pit			6	(in)	Lo	cal Soil Survey Da			
					=	C-Neutral Test			
Depth to Saturated Soil			0	(in)	∐Oti	her (Explain in Re	marks)		

Remarks: See areas where water may be standing earlier in the year. Low areas with mud at surface and little to no veg. Higher mounds have PSS1, lower areas dominated by PEM1.

Map Unit Name (S	Series and Phase):	Drainage Class:	Drainage Class:				
Taxonomy (Subgro	·		Field Observations C	Confirm Mapped Type? [YES NO		
	-	PROFII	LE DESCRIPTION	11 71			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-38	Oi						
		HYDRIC	SOIL INDICATORS:	•			
Reducing (dor (v. mild) isture Regime		Organic S Listed on Listed on	anic Content in Surface L treaking in Sandy Soils Local Hydric Soils List National Hydric Soils List plain in Remarks)			
Remarks: Major root zone: u	apper 5"						
WETLAND DE	TERMINATION	Ī					
Hydrophytic Vege	etation Present?	YES NO					
Wetland Hydrolog	gy Present?	YES NO	Is this Sampling Poi	int Within a Wetland?	XES NO		
Hydric Soils Prese	ent?	YES NO					
Remarks: Moose	tracks, moose pellets,	and moose vertebrae i	n plot				
GPS: Topography: NWI Class: PSS1/ HGM Type: Flat Photos: Functions: see fun							





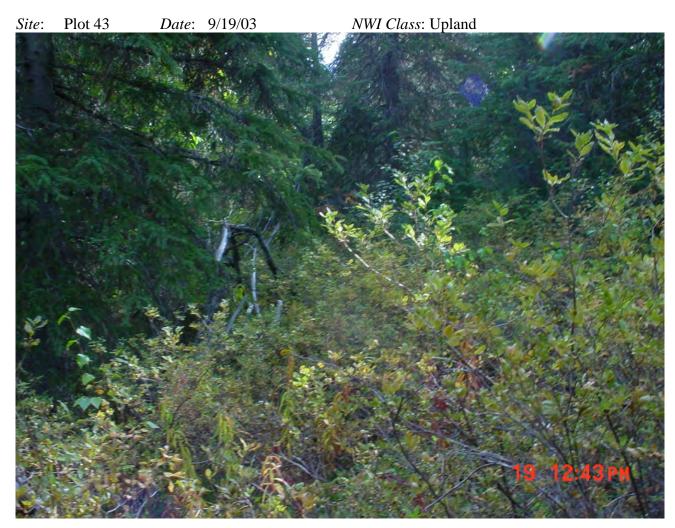
Site: Plot 42 Date: 9/19/03 NWI Class: PSS1/EM1C

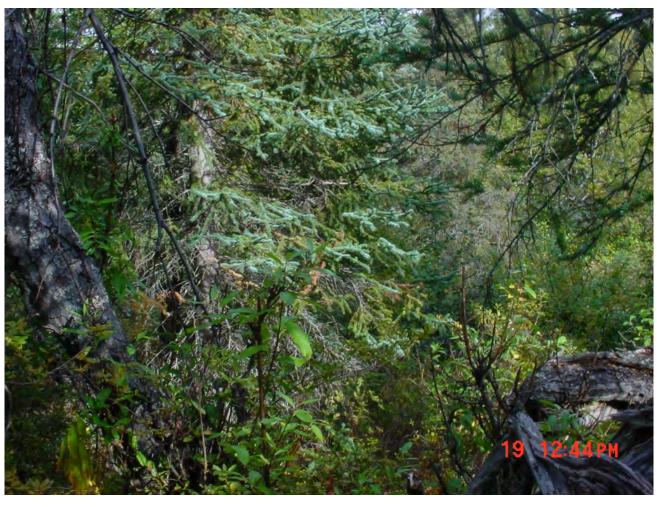


(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project	ect MP 45 -	60			Date	9/19	9/03		
Applicant / Owner: ADOT&PF					Borough	KPI	3		
Investigators: JDS & LR					State	AK			
Do Normal Circumstances exist on t	he site?			⊠YES □NO	Community ID Open spruce forest				
Is the site significantly disturbed (At	□YES ⊠NO	Transect ID	-						
Is the area a potential Problem Area?	(If needed, e	xplain o	n reverse)	□YES ⊠NO	Plot ID	Plot	43		
Describe Location: Near wayp VEGETATION									
Plant Species	Stratum	%	Indicator	Plant S ₁	pecies	Stratum	%	Indicator	
1. Picea lutzii*	Т	35	NI	9. Empetrum nig	grum	S	7		
2. Tsuga mertensiana	Т	7		10. Rubus pedat	us*	Н	5	FAC	
3. <i>Salix</i> sp.	Т	7		11. Vaccinium v	itis-idaea	S	Tr		
4. Alnus viridis sinuata	S	5		12. Orthilia secu	ında	Н	Tr		
5. Menziesia ferruginea*	S	40	FACU	13. Linnaea bore	ealis	S	Tr		
6. Chamerion angustifolium*	Н	5	FACU	14. Sorbus sitch	ensis	T	Tr		
7. Geocaulon lividum	Н	Tr		15. Lycopodium	15. Lycopodium annotinum				
8. Cornus canadensis	8. Cornus canadensis H Tr 16. Vaccinium 17. Betula pap					S T	Tr tr		
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling FAC-) 33%					
Remarks: * Indicates dominants using 50/20 m Describe Vegetation Type: open spr		vith ru	sty menz. und	lerstory					
HYDROLOGY				1					
Recorded Data (Describe in Stream, Lake, or Tide C Aerial Photographs Other No Recorded Data Availab	Sauge			Primary Indicat Int Sat Dr.	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits				
FIELD OBSER	VATIONS				ainage Patterns in	vv ettarias			
Depth of Surface Water	_ i	cators (2 or more	-	er 12 I	nches				
Depth to Free Water in Pit	Oxidized Root Channels in Upper 12 Inches Water-Stained Leaves Local Soil Survey Data								
Depth to Saturated Soil			N/a (in	FAC-Neutral Test Other (Explain in Remarks)					

JOILS								
Map Unit Name (So	eries and Phase):			Drainage Class:				
Taxonomy (Subgro	oup)		Field Observations Confirm Mapped Type? YES NO					
		PROFII	LE DESCRIPTION					
Depth (inches)	Horizon	Matrix Color* (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-8	A	7.5YR 4/1			Loam			
8-15	В	10YR 3/3			Sandy loam			
15-18	С	2.5Y4/3			Silt loam with gravels			
		HYDRIC	SOIL INDICATORS:					
Reducing C	sture Regime Conditions Low-Chroma Colors		Listed on Listed	treaking in Sandy Soils Local Hydric Soils List National Hydric Soils Li plain in Remarks)	st			
Remarks: Soil colo 16" to bottom were Major root zone: 10	large rocks 10" +							
WETLAND DE	rermination (N						
Hydrophytic Veget		YES NO						
Wetland Hydrolog	y Present?	YES NO	Is this Sampling Poi	nt Within a Wetland?	YES NO			
Hydric Soils Presen	nt?	☐YES ⊠ NO						
Remarks: Moose p	pellets in plot							
GPS: Trimble plot Topography: NWI Class: U HGM Type: U Photos: yes Functions:	43							



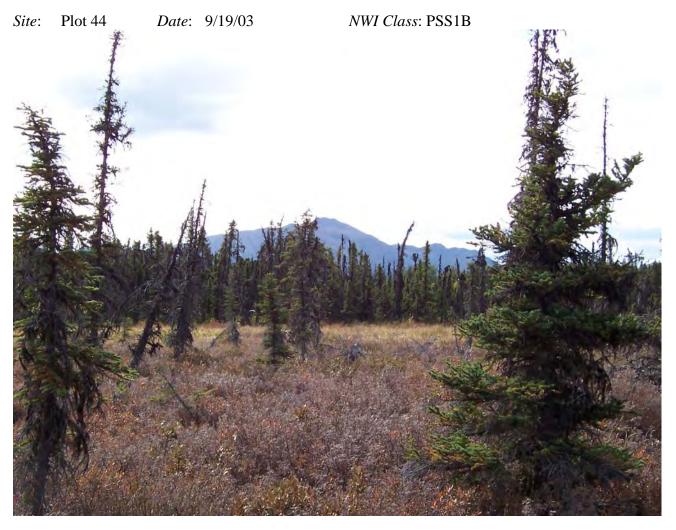


NWI Class: Upland Plot 43 Date: 9/19/03 Site:

(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Proje	ect MP 45 -	60			Date	9/19	0/03	
Applicant / Owner: ADOT&PF					Borough	KPI	3	
Investigators: JDS & LR					State AK			
Do Normal Circumstances exist on the	ne site?			⊠YES □NO	Community ID Shrub bog			
Is the site significantly disturbed (At	ypical Situa	ation)?		□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area?	Is the area a potential Problem Area? (If needed, explain on reverse)						44	
Describe Location: South of wave	y wetland							
Plant Species	Stratum	%	Indicator	Plant S ₁	pecies	Stratum	%	Indicator
1. Myrica gale*	S	40	OBL	9. grass sp. little	?	Н	tr	
2. Dasiphora floribunda*	S	45	FAC	10. Chamaedaph calyculata	hne	S	tr	
3. Betula nana	S	tr		11.				
4. Picea mariana*	T	15	FACW	12.				
5. Salix barclayi	S	5		13.				
6. Andromeda polifolia	S	tr		14.				
7. Carex sp.	Н	tr		15	15			
8. Equisetum pratense	Н	tr		16. feather moss		В	25	
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling FAC-) 100%				
Remarks: * Indicates dominants using 50/20 me								
Describe Vegetation Type: shrub bog HYDROLOGY	5							
ITDROLOGI								
Recorded Data (Describe in Stream, Lake, or Tide G Aerial Photographs Other No Recorded Data Available	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands (several dry							
FIELD OBSER	VATIONS			channe	els)			
Depth of Surface Water	_ i	cators (2 or more lidized Root Chan	•	or 12 Iı	nches			
Depth to Free Water in Pit N/a (in)				Local Soil Survey Data				.cncs
Depth to Saturated Soil			5 (ir	FAC-Neutral Test Other (Explain in Remarks)				

SOILS								
Map Unit Name ((Series and Phase):			Drainage Class:				
Taxonomy (Subg	roup)		Field Observations Confirm Mapped Type? YES NO					
		PROFI	LE DESCRIPTION					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-7	Oi							
7-7.5	Sand				sand			
7.5-14.5	Oe							
14.5-18	Oa				Silt loam			
18-23	A	7.5 YR 2.5/1						
	<u> </u>	HYDRIC	SOIL INDICATORS:					
Reducing Gleyed or	oisture Regime Conditions r Low-Chroma Colors rrange sand deposit be	tween Oi and Oe – wind	Listed on Listed on Other (Ex	treaking in Sandy Soils Local Hydric Soils List National Hydric Soils Li plain in Remarks)	st			
WETLAND DI	ETERMINATIO	N	_					
Hydrophytic Veg	getation Present?	∑YES □ NO						
Wetland Hydrolo	ogy Present?	∑YES □ NO	Is this Sampling Po	int Within a Wetland?	XES NO			
Hydric Soils Pres	sent?	⊠YES □ NO						
Remarks:								
GPS: Trimble plot Topography: flat NWI Class: PSSI HGM Type: flat Photos: see form Functions:								





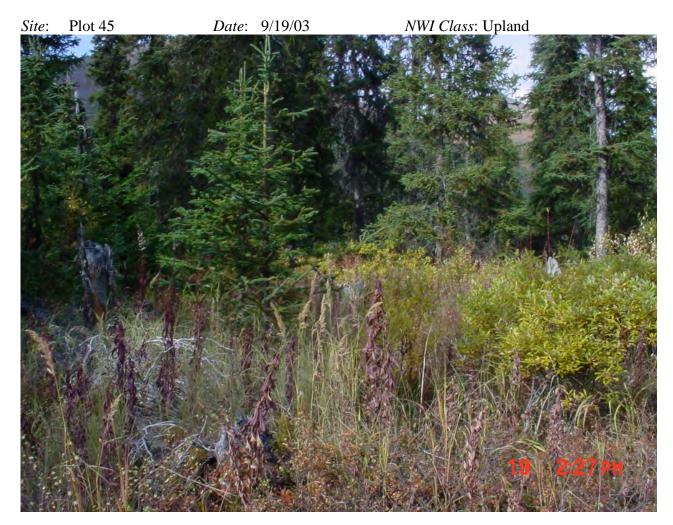
Site: Plot 44 Date: 9/19/03 NWI Class: PSS1B

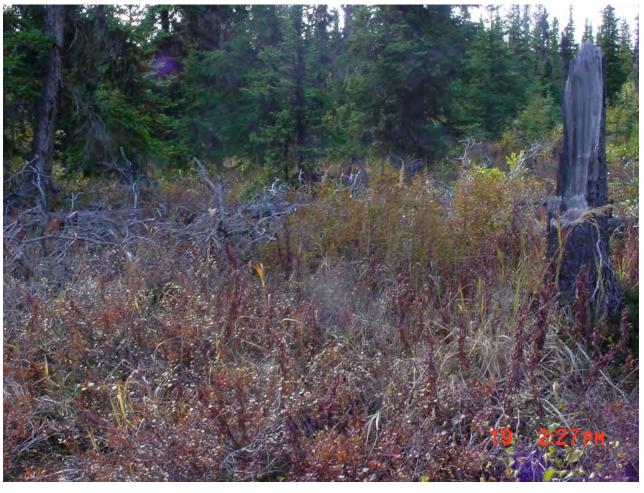


(1987 COE Wetlands Delineation Manual)

	· ·									
Project/Site: Sterling Highway Project	ect MP 45 -	60				Date	9/19	0/03		
Applicant / Owner: ADOT&PF						Borough	KPF	3		
Investigators: BPB & AA						State	AK			
Do Normal Circumstances exist on t	he site?			⊠YE □NC)	Community ID Spruce willow upland			low upland	
Is the site significantly disturbed (Atypical Situation)?					ES)	Transect ID	-	-		
Is the area a potential Problem Area?	(If needed, e	xplain o	on reverse)	□YE ⊠NC		Plot ID	Plot	45		
Describe Location: Near waypoint JCA 3										
VEGETATION Plant Species	Stratum	%	Indicator		Dlant Ca	· · · · · · · · · · · · · · · · · · ·	Stratum	%	Indicator	
Plant Species	T	20	NI	0 E	Plant Sp		Stratum	10	indicator	
1. Picea lutzii*	T		FACW	•	etrum nig ccinium vi		S	7		
2. Picea mariana*		15	FACW						EAG	
3. Tsuga mertensiana	T	Tr			hilia secu		Н	7	FAC	
4. Salix barclayi	S	25			nus cana		Н	5	FACU	
5. Betula nana*	S	20	FAC		tuca rubr		Н	5	FAC	
6. Ledum palustre decumbens	S	8			14. Calamagrostis canadensis*			5	FAC	
7. Vaccinium uliginosum*	S	30	FAC	15 <i>Popt</i>	15 Populus tremuloides			tr		
8. Chamerion angustifolium*	Н	5	FACU	16. <i>Cal</i>	16. Calamagrostis canadensis			tr		
c. Chamerion angustyouth	17. Lycopodiu					n annotinum	Н	tr		
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ding FAC-) 66%					
Remarks : Feather moss ~ 15% * Indicates dominants using 50/20 m	ethod.									
Describe Vegetation Type: spruce/w										
HYDROLOGY	inow									
Recorded Data (Describe in	Damada)				WETLA	AND HYDROLOG	GY INDICA	ATORS	S	
	ŕ			Prim	nary Indicat					
Stream, Lake, or Tide C	auge					ndated	N.T. 1			
Aerial Photographs Other						urated in Upper 12 iter Marks	2 Inches			
					=	ft Lines				
No Recorded Data Availab	le				=	liment Deposits				
						ninage Patterns in	Wetlands			
FIELD OBSER	VATIONS									
Depth of Surface Water			N/a (ir	n) Seco		cators (2 or more I	-	er 12 Iı	nches	
Depth to Free Water in Pit			N/a (ir	1)	FAC-Neutral Test					
Depth to Saturated Soil			N/a (ir	1)						

SUILS							
Map Unit Name (So	eries and Phase):			Drainage Class:			
Taxonomy (Subgro	oup)		Field Observations Confirm Mapped Type? YES NO				
		PROFI	LE DESCRIPTION				
Depth (inches)	Horizon	Matrix Color* (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-4	A	7.5 YR 3/2			Loam		
4-8	B1	10YR 3/4			Silt loam		
8-16	B2	10YR 4/2			Sandy clay		
		HYDRIC	SOIL INDICATORS:	•			
Reducing C	lor sture Regime Conditions Low-Chroma Colors		Organic S Listed on Listed on Listed	unic Content in Surface L treaking in Sandy Soils Local Hydric Soils List National Hydric Soils Li plain in Remarks)			
Gravel in B2. Major root zone: 4'							
WETLAND DE	FERMINATIO	N					
Hydrophytic Veget	tation Present?	⊠YES □ NO					
Wetland Hydrolog	y Present?	☐YES ⊠ NO	Is this Sampling Poi	nt Within a Wetland?	YES NO		
Hydric Soils Presen	nt?	☐YES ⊠ NO					
Remarks: Well defined game	trails. Moose pelle	ts in plot.					
GPS: Topography: flat NWI Class: Upland HGM Type: Photos: Functions:	d						





Site: Plot 45 Date: 9/19/03 NWI Class: Upland



(1987 COE Wetlands Delineation Manual)

		<i></i>	OE Welland	is Defineation Man				
Project/Site: Sterling Highway Project	ject MP 45 -	- 60			Date	9/19)/03	
Applicant / Owner: ADOT&PF					Borough	KPE	3	
Investigators: BPB & AA					State	AK		
Do Normal Circumstances exist on t	the site?		⊠YES □NO	Community ID		uce/wil land	llow	
Is the site significantly disturbed (At	typical Situ	ation)?	<i>!</i>	□YES ⊠NO	Transect ID			
Is the area a potential Problem Area	? (If needed, e	xplain c	on reverse)	□YES ⊠NO	Plot ID	Plot	i 46	
Describe Location: South of Jove VEGETATION	CA 1							
Plant Species	Stratum	%	Indicator	Plant S	Plant Species			Indicator
1. Picea mariana*	Т	40	FACW	9. Calamagrost	tis canadensis*	Н	10	FAC
2. Salix commutata*	S	25	FAC	10. Sanguisorbo	a stipulata	Н	5	
3. Salix barclayi*	S	10	FAC	11. Cornus can	adensis	Н	Tr	
4. Alnus viridis sinuata*	S	15	FAC	12. Equisetum a	arvense*	Н	20	FACU
5. Vaccinium uliginosum*	S	10	FAC	13. Linnaea bor	realis	S	Tr	
6. Vaccinium vitis-idaea	S	5		14. Empetrum n	ıigrum	S	5	
7. Orthilia secunda	Н	Tr		15 Betula nana		S	8	
8. Rubus pedatus	Н	5		16. Spireaea ste	evenii	S	5	
Percent of Dominant Species that are			· · · · · · · · · · · · · · · · · · ·					
Remarks: Several dead spruce in plo * Indicates dominants using 50/20 m Describe Vegetation Type: Black sp HYDROLOGY	nethod.			and 10% dead).			<u> </u>	
Recorded Data (Describe in Stream, Lake, or Tide O Aerial Photographs Other No Recorded Data Availab	Primary Indica In Sa W Di	LAND HYDROLOG ators: nundated aturated in Upper 12 Vater Marks Orift Lines ediment Deposits Orainage Patterns in	2 Inches	ATORS	S			
FIELD OBSEF	RVATIONS	· · · · · · · · · · · · · · · · · · ·						

N/a (in)

N/a (in)

2 (in)

Secondary Indicators (2 or more Required):

Water-Stained Leaves

Local Soil Survey Data
FAC-Neutral Test

Other (Explain in Remarks)

Oxidized Root Channels in Upper 12 Inches

Remarks:

Depth of Surface Water

Depth to Free Water in Pit

Depth to Saturated Soil

Map Unit Name (S	eries and Phase):			Drainage Class:			
Taxonomy (Subgro	oup)		Field Observations C	Confirm Mapped Type?	YES NO		
		PROFI	LE DESCRIPTION				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-7	Oi						
7-14	Oe						
14-17	Oa						
17-19	В	7.5 YR 4/1	2.5 YR 3/4	Few, medium, prom	Silt with rocks and gravels		
Histic Epip Sulfidic Od Aquic Mois Reducing C Gleyed or I Remarks: Major root zone:	lor (slight) sture Regime		Organic S Listed on Listed on	anic Content in Surface I treaking in Sandy Soils Local Hydric Soils List National Hydric Soils Li plain in Remarks)			
WETLAND DE	TERMINATION	1					
Hydrophytic Veget	tation Present?	YES NO					
Wetland Hydrolog	y Present?	YES NO	Is this Sampling Poi	int Within a Wetland?	∑ YES □ NO		
Hydric Soils Prese	nt?	YES NO					
Remarks: GPS: Topography: flat NWI Class: PFO4/ HGM Type: flat Photos: Functions:	SS1B						

Site: Plot 46 Date: 9/19/03 NWI Class: PFO4/SS1B







(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project		Date	9/19	0/03				
Applicant / Owner: ADOT&PF					Borough	KPF		
Investigators: JDS & LR					State	AK		
Do Normal Circumstances exist on th	e site?			⊠YES □NO	Community ID		n sprud	ce forest
Is the site significantly disturbed (Aty	□NO □YES	Transect ID -						
Is the area a potential Problem Area?	⊠NO □YES	Plot ID	Plot	Plot 47				
Describe Location: Along JCA				NO . 4				
VEGETATION	,		P • • • • • • • • • • • • • • • • • • •					
Plant Species	Stratum	%	Indicator	Plant S	pecies	Stratum	%	Indicator
1. Vaccinium uliginosum*	S	30	FAC	9. Calamagrosti	is canadensis*	Н	5	FAC
2. Ledum palustre decumbens*	S	33	FACW	10. Betula nana		S	7	
3. Empetrum nigrum	S	15		11. Chamerion d	angustifolium	Н	Tr	
4. Vaccinium vitis-idaea	S	Tr		12. Rubus pedat	us	Н	Tr	
5. Salix barclayi	S	10		13. Cornus cana	densis	Н	Tr	
6. Salix sp. tall	T	Tr		14. Geocaulon la	ividum	Н	Tr	
7. Picea lutzii*	T	10	NI	15 Lycopodium	Н	Tr		
8. Picea mariana*	T 10 FACW 16. Spireaea stev				venii	S	tr	
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling FAC-) 100%				
Remarks: * Indicates dominants using 50/20 me	thod.							
Describe Vegetation Type:								
HYDROLOGY								
Recorded Data (Describe in I Stream, Lake, or Tide Ga Aerial Photographs Other No Recorded Data Available	auge			Primary Indicat Int Sat Dr	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits			
FIELD OBSER'	VATIONS				ainage Patterns in	vv cuanas		
Depth of Surface Water		cators (2 or more I	-	er 12 II	nches			
Depth to Free Water in Pit	Oxidized Root Channels in Upper 12 Inches Water-Stained Leaves Local Soil Survey Data				iches			
Depth to Saturated Soil			N/a (in	in) FAC-Neutral Test Other (Explain in Remarks)				

OILS									
Map Unit Name	(Series and Phase):			Drainage Class:					
Taxonomy (Sub	group)		Field Observations (Confirm Mapped Type?	YES NO				
		PROFI	LE DESCRIPTION						
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.				
0-5	Oi								
5-6	A	7.5YR 2.5/1			loam				
6-11	B1	10YR 4/3	7.5YR 3/4	Common, medium, faint	Silty clay loam				
11-17	B2	10YR 4/2			Clay loam				
Reducin Gleyed	Odor floisture Regime g Conditions or Low-Chroma Colors thin sand layer undern 22 has gravels and smal	eath Oi horizon, placen	Organic S Listed on Listed on Other (Ex	anic Content in Surface La Streaking in Sandy Soils Local Hydric Soils List National Hydric Soils Lis Aplain in Remarks)					
WETLAND D	ETERMINATIO	N							
Hydrophytic Ve	getation Present?	∑YES □ NO							
Wetland Hydrol	ogy Present?	☐YES ⊠ NO	Is this Sampling Po	int Within a Wetland?	YES NO				
Hydric Soils Pre	esent?	YES NO							
_	n plot, game trail in plo	t.							
GPS: Trimble 4' Topography: NWI Class: U HGM Type: Photos: Functions:	I								





Site: Plot 47 Date: 9/19/03 NWI Class: U



(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project	Date 9/19/03							
Applicant / Owner: ADOT&PF	Borough KPB							
Investigators: BPB & AA					State	AK		
Do Normal Circumstances exist on the	ne site?			⊠YES □NO □YES	Community ID	Aspen forest		
Is the site significantly disturbed (At	Transect ID	-						
Is the area a potential Problem Area?	□YES ⊠NO	Plot ID	Plot 48					
Describe Location: Near wayp VEGETATION								
Plant Species	Stratum	%	Indicator	Plant S _I	pecies	Stratum	%	Indicator
1. Populus tremuloides*	T	40	FACU	9. Viburum edul	e^*	S	5	FACU
2. Picea lutzii	T	10		10. Veratrum vir	ride	Н	8	
3. Picea mariana	T	5		11. Lupinus sp.		Н	Tr	
4. Betula nana*	S	5	FAC	12. Spireaea ste	venii	S	Tr	
5. Orthilia secunda	Н	5		13. Rubus pedati	us	Н	5	
6. Pyrola asarifolia	Н	5		14. Linnaea bore	ealis	S	Tr	
7. Chamerion angustifolium	Н	8		15 Vaccinium vi	tis-idaea*	S	5	FAC
8. Dryopteris dilatata*	Н	20	FACU	16. Calamagross canadensis*	tis	Н	60	FAC
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling FAC-) 57%				
Remarks: Salix sp – 5%, Sangisorba annotinum – 15%. * Indicates dominants using 50/20 me Describe Vegetation Type: Aspen for	ethod.	– trace	, Vaccinium	ulig – 7%*(FAC), stı	reptopus amplexifo	olia – 5%, L	ycopo	dium
HYDROLOGY								
Recorded Data (Describe in Stream, Lake, or Tide G Aerial Photographs Other No Recorded Data Available	Primary Indicat Inu Sat Wa Dri	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands						
FIELD OBSER	VATIONS				amage ratterns in	,, changs		
Depth of Surface Water			N/a (ir		cators (2 or more I	-	er 12 Jr	nches
Depth to Free Water in Pit			N/a (ir		Local Soil Survey Data			
Depth to Saturated Soil			N/a (ir		C-Neutral Test her (Explain in Re	marks)		
Pamarke:	•			· · · · · · · · · · · · · · · · · · ·				

SUILS							
Map Unit Name (S	eries and Phase):			Drainage Class:			
Taxonomy (Subgro	oup)		Field Observations Confirm Mapped Type? YES NO				
		PROFIL	LE DESCRIPTION				
Depth (inches)	Horizon	Matrix Color* (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-3	A	7.5 YR 3/2			Loam		
3-5	Е	7.5 YR 6/1			Silt loam		
5-8	Bs	10YR 5/8			Silt loam		
8-19	В	2.5 Y 5/4			Silt loam with gravels		
		HYDRIC	SOIL INDICATORS:				
Reducing C	sture Regime Conditions Low-Chroma Colors		Listed on Listed	treaking in Sandy Soils Local Hydric Soils List National Hydric Soils Li plain in Remarks)	st		
Remarks: spodosol * soil colors taken of Major root zone: 8'	dry						
WETLAND DE	rermination	J					
Hydrophytic Veget		YES NO					
Wetland Hydrolog	y Present?	YES NO	Is this Sampling Poi	nt Within a Wetland?	YES NO		
Hydric Soils Prese	nt?	☐YES ⊠ NO					
Remarks: Moose pellets in pl	ot						
GPS: Topography: NWI Class: Upland HGM Type: upland Photos: Functions:							



