(1987 COE Wetlands Delineation Manual)

Duningt/Sites Starling High-year Duni		Data	0.15	. 02						
Project/Site: Sterling Highway Projection Applicant / Owner: ADOT&PF	ect MP 45 -	00					Date Borough	9-15 KPE		
Investigators: JDS & AA		State	AK	•						
Do Normal Circumstances exist on t					dow					
					□NO □YES		Community ID	Seug	ge mea	uow
Is the site significantly disturbed (At	ypical Situa	ation)?			⊠NO □YES		Transect ID	-		
Is the area a potential Problem Area?	? (If needed, e	xplain o	n reverse)		⊠NO		Plot ID	Plot	21	
Describe Location: Near wayp VEGETATION	ighway									
Plant Species	Stratum	%	Indicator		Plan	t Sp	ecies	Stratum	%	Indicator
1. Carex utriculata*	Н	25	OBL	9.						
2. Equisetum variegatum	Н	10		10	•					
3. Carex aquatilis*	Н	35	OBL	11	•					
4. Calamagrostis canadensis	Н	10		12	•					
5 Comarum palustre	Н	tr		13	•					
6. Equisetum arvense	Н	tr		14	•					
7. Salix sp.	S	tr		15						
8.			16.							
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling	FAC-) 100%					
Remarks: * Indicates dominants using 50/20 m Describe Vegetation Type: sedge me		low an	d horsetails o	on m	ounds of high	ier g	ground.			
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					
FIELD OBSER			Dια	inage Patterns in	vv ctianus					
Depth of Surface Water	1)	<u> </u>	1	eators (2 or more I	• '	er 12 Iu	nches			
Depth to Free Water in Pit	1)	Local Soil Survey Data								
Depth to Saturated Soil			0 (ir	1)	FAC-Neutral Test					

Remarks: Many areas present that had contained standing water in past (dry upon field investigation)

Map Unit Name (S	Series and Phase):			Drainage Class:					
Taxonomy (Subgr	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	Oi								
8-16	Oe								
Reducing Gleyed or Remarks:There we Major root zone: u	dor isture Regime Conditions Low-Chroma Colors ere some small chuck	s of mineral soil mixed	Organic S Listed on Listed on Other (Ex	anic Content in Surface Latreaking in Sandy Soils Local Hydric Soils List National Hydric Soils List plain in Remarks) r = g14/N					
Hydrophytic Vege Wetland Hydrolog		YES NO	Is this Sampling Po	int Within a Wetland?	⊠ YES □ NO				
Hydric Soils Prese	-	YES NO		me wama a wedana.					
Remarks:									
GPS: Trimble plot Topography: NWI Class: PEMI HGM Type: flat of Photos: yes Functions: see for	1C or depression								



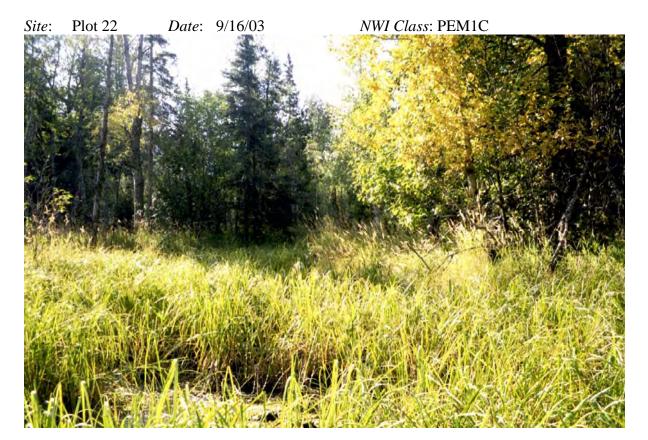




(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Proj	ect MP 45 -	60				Date	9/16	/03	
Applicant / Owner: ADOT&PF						Borough	KPE	3	
Investigators: JDS & AA				State	AK				
Do Normal Circumstances exist on	the site?			⊠YES □NO	Community ID Sedge meadow			dow	
Is the site significantly disturbed (A	typical Situa	ation)?			□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area	n reverse)		□YES ⊠NO	Plot ID	Plot	22			
Describe Location: Near wayp VEGETATION	ay.								
Plant Species	Stratum	%	Indicator		Plant S ₁	pecies	Stratum	%	Indicator
1. Carex utriculata*	Н	85	OBL	9.					
2. Comarum palustre	Н	tr		10					
3.				11					
4.				12	·•				
5.				13					
6.				14	•				
7.				15					
8.				16					
Percent of Dominant Species that ar	e OBL, FA	CW, 01	FAC (exclu	ding	FAC-) 100%				
Remarks: * Indicates dominants using 50/20 n There is a small area of upland fores Describe Vegetation Type: sedge me	st adjacent to	o pond	2. There is a	an al	der, cal can fring	e, and open water			
HYDROLOGY									
Recorded Data (Describe in Stream, Lake, or Tide (Aerial Photographs Other No Recorded Data Availab		WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands			S				
FIELD OBSE			amage I atterns m	vv etianas					
Depth of Surface Water	n)	<u> </u>	cators (2 or more lidized Root Chan	-	er 12 Ir	nches			
Depth to Free Water in Pit	n)	□Wa □Lo	ater-Stained Leave cal Soil Survey Da	es					
Depth to Saturated Soil			0 (in	n)		.C-Neutral Test her (Explain in Re	marks)		
		_							

SULS								
Map Unit Name (Se	eries and Phase):	Drainage Class:	Drainage Class:					
Taxonomy (Subgro	up)		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.			
0-3	Oi							
3-10	Oe							
10-16+	A	G2 3/10B			sand			
		HYDRIC	SOIL INDICATORS:					
Reducing C	sture Regime Conditions Low-Chroma Colors		Listed on 1	Local Hydric Soils List National Hydric Soils Lis plain in Remarks)	st			
Remarks: Major root zone:								
WETLAND DE	TERMINATIO!	N						
Hydrophytic Veget	ation Present?	∑YES □ NO						
Wetland Hydrology	y Present?	⊠YES □ NO	Is this Sampling Poi	int Within a Wetland?	XES NO			
Hydric Soils Preser	nt?	⊠YES □ NO						
Remarks:								
GPS: Trimble plot of Topography: flat NWI Class: PEM10 HGM Type: pond f Photos: yes Functions: see form	C Pringe							







(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Proje	Date	9/16	5/03					
Applicant / Owner: ADOT&PF					Borough	KPE	3	
Investigators: JDS & AA	State	State AK						
Do Normal Circumstances exist on the	ne site?			⊠YES □NO	Community ID	Spru	ice, asp	oen forest
Is the site significantly disturbed (At	ypical Situa	tion)?		□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area?	(If needed, ex	xplain o	n reverse)	□YES ⊠NO	Plot ID	Plot	26	
Describe Location: near waypo VEGETATION	slope.							
Plant Species	Stratum	%	Indicator	Plant S _I	pecies	Stratum	%	Indicator
1. Picea lutzii*	T	10	NI	9. Linnaea bored	alis	S	tr	
2. Populus tremuloides*	T	15	FACU	10. Shepherdia o	canadensis*	S	7	UPL
3. Betula papyrifera	T	5		11.				
4. <i>Salix</i> sp (tree, no catkins)	T	5		12.				
5. Viburum edule*	S	10	FACU	13.				
6. Geocaulon lividum*	Н	10	FACU	14.				
7. Pyrola asarifolia	Н	tr		15				
8. Chamerion angustifolium	Н	tr		16. feather moss		В	20	
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling FAC-) 0%				
Remarks: Several beetled-killed spr * Indicates dominants using 50/20 m Describe Vegetation Type: Open spr	ethod.	forest.						
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		ainage Patterns in	wettands					
Depth of Surface Water		cators (2 or more I idized Root Chan		er 12 Ir	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			N/a (in		her (Explain in Re	marks)		

JOILS									
Map Unit Name (Se	eries and Phase):			Drainage Class:					
Taxonomy (Subgrou	up)		Field Observations C	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, t Structure, etc.				
0-16	A	10YR4/4			Sandy loam				
		HYDRIC	SOIL INDICATORS:						
Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors High Organic Content in Surface Layer in Sandy Soils Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Other (Explain in Remarks) Remarks: Many rocks in plot most were 1" to 5". Very rocky soil. One rock was 23" long.									
* soil color was take Major root zone: up	-								
WETLAND DET	TERMINATION	N							
Hydrophytic Veget	ation Present?	☐YES ⊠ NO							
Wetland Hydrology	Present?	☐YES ⊠ NO	Is this Sampling Poi	nt Within a Wetland?	YES NO				
Hydric Soils Presen	nt?	☐YES ⊠ NO							
Remarks: Squirrel in plot and	lots of evidence of	squirrel activity							
GPS: Trimble plot 2 Topography: hill slo NWI Class: U HGM Type: U Photos: yes Functions:									

Site: Plot 26 Date: 9/16/03 NWI Class: Upland





(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project	t MP 45 -	60					Date 9/16/03 Borough KPB			
Applicant / Owner: ADOT&PF	Applicant / Owner: ADOT&PF								}	
Investigators: JDS & AA	Investigators: JDS & AA									
Do Normal Circumstances exist on the	e site?				⊠Y. □N	О	Community ID grass opening in willow thicket			
Is the site significantly disturbed (Aty	pical Situa	ation)?			\boxtimes N		Transect ID	-		
Is the area a potential Problem Area?	If needed, e	xplain o	n reverse)		□Y ⊠N	ES O	Plot ID	Plot	23	
Describe Location: West of A5	in open	ing, a	rea is sim	ilar	r to v	wetland 2.	•			
VEGETATION	1				ı					
Plant Species	Stratum	%	Indicator			Plant Sp	pecies	Stratum	%	Indicator
1. Calamagrostis canadensis*	Н	65	FAC	9.						
2. Salix barclayi*	S	7	FAC	10).					
3. Equisetum pratense	Н	10		11	l					
4. Sanguisorba stipulata	Н	5		12	2.					
5. Rosa acicularis	S	Tr		13	3.					
6. Galium trifidum	Н	Tr		14	1.					
7. Picea lutzii*	T	5	NI	15	5					
8. Comarum palustre	Н	5		16	5.					
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ding	FAC	C-) 100%				
Remarks: Several dead spruce in plot * Indicates dominants using 50/20 mer Surrounding areas have more willow. Describe Vegetation Type: open willow.	thod.	and								
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				
FIELD OBSERV				ainage Patterns in	11 CHAHUS					
Depth of Surface Water N/a (in)							cators (2 or more I	_	or 19 Ir	nches
Depth to Free Water in Pit N/a (in)						Local Soil Survey Data				101100
Depth to Saturated Soil			0 (in	n)		=	C-Neutral Test ner (Explain in Re	marks)		

Remarks: Several small, dry drainages in plot.

OILS								
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.			
0-3	Oi							
3-10	A	7.5YR4/1	7.5YR4/6	Many, distinct, medium	Silt loam			
10-23	Oab							
		HYDRIC	SOIL INDICATORS:					
Reducing	isture Regime Conditions Low-Chroma Colors		Listed on	Local Hydric Soils List National Hydric Soils Lis splain in Remarks)	t			
WETLAND DE	TERMINATIO	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 Prese	ent?	⊠YES □ NO						
Remarks: Magpies in plot								
GPS: Trimble plo Topography: NWI Class: PSS1 HGM Type: flat, o Photos: yes Functions:	/EM1B (Note: areas	surrounding plot have n	nore willow so we are	including shrubs in the NV	VI code).			







(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project	ect MP 45 -	60			Date	9/16	5/03	
Applicant / Owner: ADOT&PF					Borough	KPI	3	
Investigators: JDS & AA					State	AK		
Do Normal Circumstances exist on t	he site?		⊠YES □NO	Community ID	Community ID Lutz spruce forest			
Is the site significantly disturbed (At	ypical Situa	,	□YES ⊠NO	Transect ID	-			
Is the area a potential Problem Area	n reverse)	□YES ☑NO	Plot ID	Plot	24			
Describe Location: Near wayp VEGETATION	oint A5,	south	of Sterlin	g Highway				
Plant Species	Stratum	%	Indicator	Plant S _I	pecies	Stratum	%	Indicator
1. Picea lutzii*	Т	40	NI	9. Achillea mille	efolium	Н	Tr	
2. Viburum edule	S	Tr		10. Betula papyi		Т	Tr	
3. Rosa acicularis*	S	5	FACU	11. <i>Salix</i> sp		Т	Tr	
4. Linnaea borealis*	S	5	FACU	12. Chamerion of	angustifolium	Н	Tr	
5. Equisetum arvense*	Н	20	FACU	13. Heracleum n	naximum	Н	Tr	
6. Gymnocarpium dryopteris	Н	5		14. Mertensia po	aniculata	Н	Tr	
7. Calamagrostis canadensis	Н	7		15. Galium sp.		Н	Tr	
8. Cornus canadensis	Н	5		16. Geranium sp).	Н	Tr	
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclude	ding FAC-) 0%			.1	
Remarks: Many dead spruce trees in * Indicates dominants using 50/20 m Describe Vegetation Type: Lutz spr HYDROLOGY	ethod.	ile kiii.						
HYDKULUGI								
Recorded Data (Describe in Stream, Lake, or Tide C Aerial Photographs Other No Recorded Data Availab	Primary Indicat Int Sat Wa	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits						
FIELD OBSER			C					
Depth of Surface Water	_ i	cators (2 or more lidized Root Chan	•	er 12 Iı	nches			
Depth to Free Water in Pit			N/a (ii	□Wa □Lo	ater-Stained Leave cal Soil Survey Da C-Neutral Test	es	01 12 11	iches
Depth to Saturated Soil			N/a (ii		her (Explain in Re	marks)		

SOILS									
Map Unit Name (Se	eries and Phase):			Drainage Class:					
Taxonomy (Subgrou	up)		Field Observations C	Field Observations Confirm Mapped Type? YES NO					
		PROFII	LE DESCRIPTION						
Depth (inches)	Horizon	Matrix Color* (Munsell Moist)	Mottle Colors (Munsell Moist)						
0-9	A	7.5YR3/4 (20%)			Structure, etc.				
		7.5YR3/2 (80%)							
9-16	В	7.5YR3/4 (50%)			Fine sandy loam				
		7.5YR3/2 (50%)							
	1								
		HYDRIC	SOIL INDICATORS:						
Reducing Confidence of L	ture Regime Conditions Low-Chroma Colors		Listed on I Listed on I Other (Exp	treaking in Sandy Soils Local Hydric Soils List National Hydric Soils Li plain in Remarks)	ist				
Remarks: Second m * soil colors taken d Major root zone: up	lry.	l B-horizons are streakin	ıg.						
WETLAND DET	TERMINATION	N							
Hydrophytic Vegeta	ation Present?	YES NO							
Wetland Hydrology	Present?	☐YES ⊠ NO	Is this Sampling Poi	int Within a Wetland?	YES NO				
Hydric Soils Presen	nt?	☐YES ⊠ NO	1						
Remarks:									
GPS: Trimble plot 2 Topography: NWI Class: U HGM Type:U Photos: yes Functions:	24								



Site: Plot 24 Date: 9/16/03 NWI Class: Upland



(1987 COE Wetlands Delineation Manual)

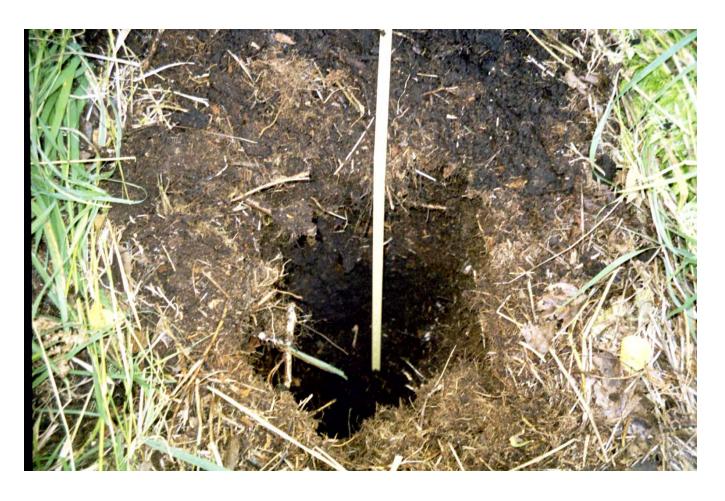
Project/Site: Sterling Highway Project	Project/Site: Sterling Highway Project MP 45 - 60							
Applicant / Owner: ADOT&PF					Borough	KPE	3	
Investigators: JDS & AA	State	AK						
Do Normal Circumstances exist on the	Community ID	Alder thicket along stream						
Is the site significantly disturbed (At	ypical Situa	tion)?		□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area?	(If needed, ex	xplain o	n reverse)	□YES ⊠NO	Plot ID	Plot	27	
Describe Location: Off Juneau	Creek V	Vilde	rness Alt,	no waypoint, eas	t (500') from j	c9, in dra	inage	e
VEGETATION Plant Species	Stratum	%	Indicator	Dlant C	:	Stratum	%	Indicator
Plant Species 1. Alnus viridis sinuata *	Stratum	55	FAC	Plant S ₁	pecies	Stratum		indicator
	T	8	FACU	9. Ribes sp. 10. Oplopanax h	a a uni de ca	Н	tr	
Populus balsamifera* Rosa acicularis	S	Tr	FACU	1 1		Т		
4. Calamagrostis Canadensis*	Н	20	FAC	11. Betula papyı 12. Chamerion o		Н	tr	
5. Athyrium filix-femina*	Н	5	FAC	13.				
6. Equisetum pratense	Н	tr	1710	14.				
7. Gymnocarpium dryopteris	Н	tr		15				
8. Aconitum delphiniifolium	Н	tr		16.				
Percent of Dominant Species that are			FAC (exclud					
Remarks: * Indicates dominants using 50/20 m Describe Vegetation Type: alder thic								
HYDROLOGY								
Recorded Data (Describe in Stream, Lake, or Tide C Aerial Photographs Other No Recorded Data Availab	Primary Indicat Int Sat Dr.	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits						
FIELD OBSER		ainage Patterns in	vv ctianas					
Depth of Surface Water	_	cators (2 or more I	•	ar 10 Iv	nches			
Depth to Free Water in Pit			N/a (in) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	nter-Stained Leave cal Soil Survey Da C-Neutral Test	S	J 12 II	iches
Depth to Saturated Soil			N/a (in		her (Explain in Re	marks)		

Remarks: Creek is 2' from plot.

OILS				_					
Map Unit Name (S	Series and Phase):			Drainage Class:	Drainage Class:				
Taxonomy (Subgre	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.				
0-7	Oi								
7-12	Oe								
12-20	Oa								
	·	HYDRIC S	SOIL INDICATORS:						
Reducing Gleyed or	isture Regime		Listed on Listed on	treaking in Sandy Soils Local Hydric Soils List National Hydric Soils Lis plain in Remarks)	st				
Remarks: *Although 20" of Major root zone: u		esent, it is not saturated	and therefore not cons	sidered hydric.					
WETLAND DE	TERMINATION								
Hydrophytic Vege	etation Present?	∑YES □ NO							
Wetland Hydrolog (marginal)	gy Present?	⊠YES □ NO	Is this Sampling Poi	nt Within a Wetland?	YES NO				
Hydric Soils Prese	ent?	YES NO							
Remarks:									
GPS: Trimble plot Topography: NWI Class: U HGM Type: U Photos: yes Functions:	: 27								

Site: Plot 27 Date: 9/16/03 NWI Class: Upland





(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Pro			Date 9/16/03						
Applicant / Owner: ADOT&PF			Borough	KPB					
Investigators: JDS & AA			State	State AK					
Do Normal Circumstances exist on	the site?				⊠YES □NO	Community ID Alder thicket			cet
Is the site significantly disturbed (A	Atypical Situa	ation)?)		□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area	a? (If needed, e	xplain o	n reverse)		□YES ⊠NO	Plot ID	Plot	25	
Describe Location: VEGETATION									
Plant Species	Plant Species Stratum % Indicator				Plant S	pecies	Stratum	%	Indicator
1. Alnus viridis sinuata *	S	45	FAC	9.	current sp.		S	tr	
2. Calamagrostis canadensis*	Н	40	FAC	10).				
3. Rosa acicularis	S	5		11	l .				
4. Trientalis europaea	Н	Tr		12	2.				
5. Equisetum pratense	Н	7		13	3.				
6. Betula papyrifera*	Т	10	FACU	14	l .				
7. Comarum palustre	Н	tr		15	5				
8. Picea mariana	Т	tr		16	б.				
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 66%									
Remarks: Adjacent forest to south There is a 50' swath of alder draina * Indicates dominants using 50/20 poscribe Vegetation Type: Alder	ge that conn	ects po		l arms	of wetland and s	standing water are	present bety	veen fo	prest stands.
HYDROLOGY									
Recorded Data (Describe in Remarks) Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available					Primary Indica In Sa W D1	AND HYDROLO utors: undated* uturated in Upper 1 ater Marks rift Lines ediment Deposits rainage Patterns in	2 Inches	ATORS	5
FIELD OBSERVATIONS						iumage i uccoms m	vv cerarias		
Depth of Surface Water N/a (in)					O ₂	icators (2 or more xidized Root Chan	nels in Upp	er 12 Iı	nches
Depth to Free Water in Pit 0 (in)					Water-Stained Leaves Local Soil Survey Data FAC-Neutral Test				
Depth to Saturated Soil 0 (in)									

Remarks: * An area 2' from pit is inundated. Many areas of standing and flowing water in plot. Adjacent to creek.

SOILS									
Map Unit Name (S	Series and Phase):			Drainage Class:					
Taxonomy (Subgro	oup)		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.				
0-11	Oi								
11-18	Oe								
18-26	Oa								
Histosol		HYDRIC S	SOIL INDICATORS: Concretion	ns					
Reducing (dor isture Regime		Organic S Listed on Listed on	anic Content in Surface L streaking in Sandy Soils Local Hydric Soils List National Hydric Soils List plain in Remarks)					
Remarks: Soil pit is 3 or 4 in Major root zone:	ches above creek leve	el. At bottom of soil pit	there were gravels and	d rocks.					
WETLAND DE	TERMINATION								
Hydrophytic Vege	etation Present?	YES NO							
Wetland Hydrolog	gy Present?	YES NO	Is this Sampling Poi	int Within a Wetland?	∑ YES □ NO				
Hydric Soils Prese	ent?	YES NO							
Remarks: Dead black bear in	ı plot – road kill. Wet	tland is adjacent to fish	stream and pond.						
GPS: Trimble plot Topography: NWI Class: PSS1/ HGM Type: Photos: yes Functions: see for	/EM1B								

Date: 9/16/03 Plot 25 NWI Class: PSS1/EM1B Site:





Site: Plot 25 (adjacent creek) Date: 9/16/03 NWI Class: PSS1/EM1B

(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Project MP 45 - 60						Date 9/16/03			
Applicant / Owner: ADOT&PF						Borough KPB			
Investigators: JDS & AA						State	AK		
Do Normal Circumstances exist on t	he site?			⊠YES □NO		Community ID Alder thicket			et
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	28	
Describe Location: No waypoi VEGETATION	nt, in ope	ening	near creek	k, creek could	co	nnect to plot 2	7.		
Plant Species	Stratum	%	Indicator	Pla	nt Sp	pecies	Stratum	%	Indicator
1. Alnus viridis sinuata *	S	45	FAC	9. Cornus ca	nad	lensis	Н	tr	
2. Salix sp.	S	Tr		10. Equisetur	n pi	ratense*	Н	15	FACW
3. Chamerion angustifolium	Н	5		11. Mertensi	a pa	ıniculata	Н	Tr	
4. Sanguisorba stipulata	Н	Tr		12. Aconitum	dei	lphiniifolium	Н	Tr	
5. Athyrium filix-femina	Н	5		13. Ribes sp.			S	5	
6. Galium sp.	Н	Tr		14.					
7. Rosa acicularis	S	10		15					
8. Calamagrostis canadensis*	Н	10	FAC	16.	16.				
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling FAC-) 100 %	o				
Remarks: * Indicates dominants using 50/20 m Describe Vegetation Type: Alder this		reek							
HYDROLOGY									
Recorded Data (Describe in Stream, Lake, or Tide C Aerial Photographs Other No Recorded Data Availab	Primary Ind	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits							
FIELD OBSER			ainage Patterns in	wenanus					
Depth of Surface Water	Secondary	_	cators (2 or more I	-	er 12 Ir	nches			
Depth to Free Water in Pit 12 (in)					Oxidized Root Channels in Upper 12 Inches Water-Stained Leaves Local Soil Survey Data				
					FAC-Neutral Test Other (Explain in Remarks)				

OILS								
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.			
0-8	Oe							
8-23	Oa							
		HYDRIC S	SOIL INDICATORS:					
Reducing C	lor sture Regime		Organic St Listed on I Listed on I	nic Content in Surface Lareaking in Sandy Soils Local Hydric Soils List National Hydric Soils List Dain in Remarks)				
Remarks: Major root zone: up	pper 8''							
WETLAND DE	TERMINATION							
Hydrophytic Veget	tation Present?	⊠YES □ NO						
Wetland Hydrolog	y Present?	∑YES □ NO	Is this Sampling Point	nt Within a Wetland?	YES NO			
Hydric Soils Preser	nt?	XYES NO]					
Remarks:								
GPS: Trimble plot Topography: NWI Class: PSS1E HGM Type: riverin Photos: yes Functions:	3							

Site: Plot 28 Date: 9/16/03 NWI Class: PSS1B





(1987 COE Wetlands Delineation Manual)

Project/Site: Sterling Highway Proje	Date 9/17/03							
Applicant / Owner: ADOT&PF	Borough	Borough KPB						
Investigators: JDS & AA	State	AK						
Do Normal Circumstances exist on the	ne site?			⊠YES □NO	Community ID	y ID Alder thicket along creek		
Is the site significantly disturbed (At	ypical Situa	tion)?		□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area?	(If needed, ex	xplain o	n reverse)	□YES ⊠NO	Plot ID	Plot	29	
Describe Location: VEGETATION								
Plant Species	Stratum	%	Indicator	Plant S _I	pecies	Stratum	%	Indicator
1. Alnus viridis sinuata *	S	70	FAC	9. Viburum edul	e	S	15	
2. Athyrium filix-femina	Н	7		10. Ribes sp.		S	7	
3. Oplopanax horridus	Н	7		11. Rubus sp.		S	5	
4. Calamagrostis Canadensis*	Н	10	FAC	12. Geranium sp).	Н	Tr	
5. Equisetum pratense*	Н	15	FACW	13. Viola sp.		Н	Tr	
6. Betula papyrifera	T	Tr		14. Gymnocarpii	um dryopteris	Н	Tr	
7. Picea lutzii	T	Tr		15 Galium sp.	15 Galium sp.			
8. Populus balsamifera*	T	T 15 FACU 16. Streptopus amplexifolius			mplexifolius	Н	tr	
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling FAC-) 75%				
Remarks: * Indicates dominants using 50/20 m Describe Vegetation Type: Alder thi								
HYDROLOGY								
Recorded Data (Describe in Stream, Lake, or Tide Control Aerial Photographs Other No Recorded Data Availab	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 (see note)						
FIELD OBSER		amage ratterns m	Wettands (s	ice nou	<i>-</i>)			
Depth of Surface Water		cators (2 or more I	-	er 12 Ir	nches			
Depth to Free Water in Pit n/a (in)					Oxidized Root Channels in Upper 12 Inches Water-Stained Leaves Local Soil Survey Data			iches
FA					C-Neutral Test her (Explain in Re	marks)		

Remarks: Plot is adjacent to stream.

SUILS								
Map Unit Name (Series and Phase):			Drainage Class:				
Taxonomy (Subgr	roup)		Field Observations Confirm Mapped Type? YES NO					
		PROFI	LE DESCRIPTION					
Depth (inches)	hes) Horizon (Munsell Moist)		Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-7	A	7.5YR2.5/1	, , , , , , , , , , , , , , , , , , ,		loam			
7-15	В	7.5YR3/3	7.5YR3/4	Few, faint, fine	Sandy loam			
15-16	B/C	7.5YR3/3			Gravelly sandy loam			
		IIVDDIC	SOIL INDICATORS:					
Reducing	oisture Regime Conditions Low-Chroma Colors	;	Listed on Listed on	Streaking in Sandy Soils Local Hydric Soils List National Hydric Soils Li splain in Remarks)	ist			
WETLAND DE	ETERMINATIO	N						
Hydrophytic Veg		∑YES □ NO						
Wetland Hydrolo marginal	Wetland Hydrology Present? Marginal Wetland Hydrology Present? NO Is this Sampling Point Within a Wetland? YES NO							
Hydric Soils Pres	ent?	YES NO						
Remarks: GPS: Trimble plotopography: flat NWI Class: U HGM Type: uplat Photos: yes Functions:								

Site: Plot 29 Date: 9/17/03 *NWI Class*: U





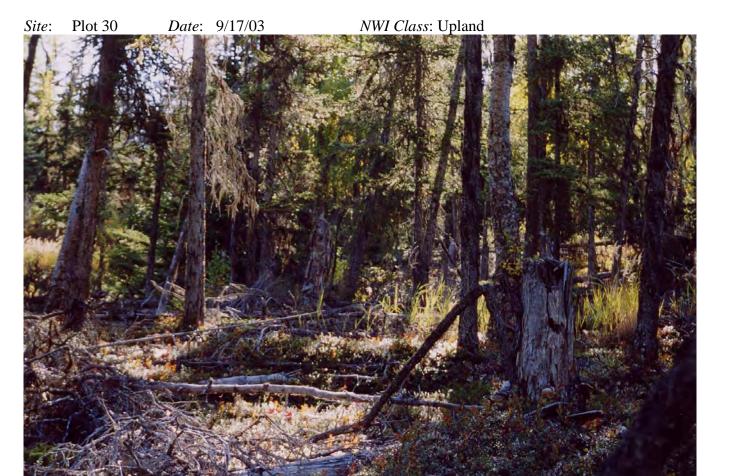
Site: Plot 29 Date: 9/17/03 NWI Class: U



(1987 COE Wetlands Delineation Manual)

Duningt/Cital Charling Highway Duning	Data	0/17	1/02					
Project/Site: Sterling Highway Project	Date							
Applicant / Owner: ADOT&PF	Borough	KPE	3					
Investigators: JDS & AA				⊠YES	State	AK		
Do Normal Circumstances exist on the	e site?			□NO	Community ID	Community ID Spruce, birch forest		
Is the site significantly disturbed (Aty	pical Situa	tion)?		□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area?	(If needed, ex	kplain o	n reverse)	□YES ⊠NO	Plot ID	Plot	30	
Describe Location: Above creek VEGETATION	x (to sou	th) n	ear waypo	int jc6, in spruc	e forest, off Fo	rest Servi	ice Ro	oad.
Plant Species	Stratum	%	Indicator	Plant S	pecies	Stratum	%	Indicator
1. Picea lutzii*	Т	12	NI	9. Cornus canad	densis	Н	tr	
2. Betula papyrifera*	T	5	FACU	10. Linnaea bor	ealis	S	tr	
3. Vaccinium vitis-idaea*	S	12	FAC	11. Rubus pedat	us	Н	tr	
4. Pyrola asarifolia	Н	Tr		12. <i>Salix</i> tree		Т	tr	
5. Geocaulon lividum*	Н	10	FACU	13.				
6. Empetrum nigrum*	S	15	FAC	14.				
7. feather moss	В	60		15				
8. Lycopodium annotinum*	Н	5	FAC	16.				
Percent of Dominant Species that are Remarks: Several dead and dying spi				ling FAC-) 60%				
* Indicates dominants using 50/20 me Describe Vegetation Type: Open sprud								
HYDROLOGY				1				
Recorded Data (Describe in R Stream, Lake, or Tide Ga Aerial Photographs Other No Recorded Data Available	WETLAND HYDROLOGY INDICATORS Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits				}			
FIELD OBSERV		ainage Patterns in	wettands					
Depth of Surface Water		cators (2 or more laidized Root Chan	-	er 12 Iı	nches			
Depth to Free Water in Pit	$ \begin{array}{c c} \hline $	Water-Stained Leaves Local Soil Survey Data						
Depth to Saturated Soil			n/a (ir		FAC-Neutral Test Other (Explain in Remarks)			

Map Unit Name	e (Series and Phase):	Drainage Class:					
Taxonomy (Sub	ogroup)		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.		
0-3	A	10YR5/2			Loam (hi organic content)		
3-6	Е	7.5YR6/1			silt		
6-8	B1	7.5YR4/6			Sandy loam		
8-17	B2	10YR4/4			Silt loam		
		HVDRIC	SOIL INDICATORS:				
_	ng Conditions or Low-Chroma Colors		_	National Hydric Soils Li splain in Remarks)			
WETI AND I	DETERMINATIO	N					
	egetation Present?	YES NO					
Wetland Hydro	ology Present?	☐YES ⊠ NO	Is this Sampling Po	oint Within a Wetland?	YES NO		
Hydric Soils Pr	resent?	☐YES ⊠ NO					
Remarks: Moose pellets i	n plot						
GPS: Trimble p Topography: fla NWI Class: U HGM Type: U Photos: yes Functions: wild	at						





(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	ne site?				⊠YES □NO	Community ID	Alder thicket		
Is the site significantly disturbed (At	ypical Situa	tion)?			□YES ⊠NO	Transect ID	-		
Is the area a potential Problem Area?	(If needed, e	xplain o	n reverse)		□YES ⊠NO	Plot ID	Plot	31	
Describe Location: Thicket sou VEGETATION	ıth of wa	ypoii	nt jc4						
Plant Species	Stratum	%	Indicator		Plant Sp	pecies	Stratum	%	Indicator
1. Alnus viridis sinuata *	S	55	FAC	9. 3	Sanguisorba s	tipulata	Н	Tr	
2. Spireaea stevenii	S	5		10.	Equisetum pr	ratense*	Н	15	FACW
3. Picea lutzii*	T	8	NI	11.	Linnaea bore	ealis	S	Tr	
4. Calamagrostis canadensis*	Н	20	FAC	12.	Chamerion a	ngustifolium	Н	tr	
5. Lycopodium annotinum	Н	Tr		13.					
6. Betula papyrifera	T	Tr		14.					
7. Vaccinium vitis-idaea	S	Tr		15					
8. Rubus pedatus	Н	tr 16.							
Percent of Dominant Species that are	OBL, FAC	CW, or	FAC (exclud	ling l	FAC-) 100%				
Remarks: Several dead spruce in ple * Indicates dominants using 50/20 m Describe Vegetation Type: alder thic	ethod.	cill.							
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 Drainage Patterns in Wetlands				
FIELD OBSERVATIONS						image i atterns in	vv ctianas		
Depth of Surface Water n/a (in)					Secondary Indicators (2 or more Required): Oxidized Root Channels in Upper 12 Inches Water-Stained Leaves Local Soil Survey Data				nches
Depth to Free Water in Pit n/a (in)									
Depth to Saturated Soil			0 (ir	n)	=	C-Neutral Test ner (Explain in Re	marks)		

Map Unit Name (S	Series and Phase):	Drainage Class:					
Taxonomy (Subgro	•		Field Observations C	Confirm Mapped Type?	YES NO		
		PROFII	E DESCRIPTION				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-3	Oi				,		
3-7	Oe						
7-21	Oa						
		HYDRIC	SOIL INDICATORS:	•			
Reducing	dor isture Regime		Organic S Listed on Listed	unic Content in Surface L treaking in Sandy Soils Local Hydric Soils List National Hydric Soils Lis plain in Remarks)			
Major root zone: u	pper 7"						
WETLAND DE	TERMINATION	I					
Hydrophytic Vege	etation Present?	YES NO					
Wetland Hydrolog	gy Present?	⊠YES □ NO	Is this Sampling Poi	nt Within a Wetland?	XES NO		
Hydric Soils Prese	ent?	⊠YES □ NO					
Remarks:							
GPS: Trimble plot Topography: flat NWI Class: PSS1 HGM Type: riveri Photos: yes Functions: flood w	/EM1B ne	t, nutrient cycling, strea	am flow regulation, wa	ter quality.			