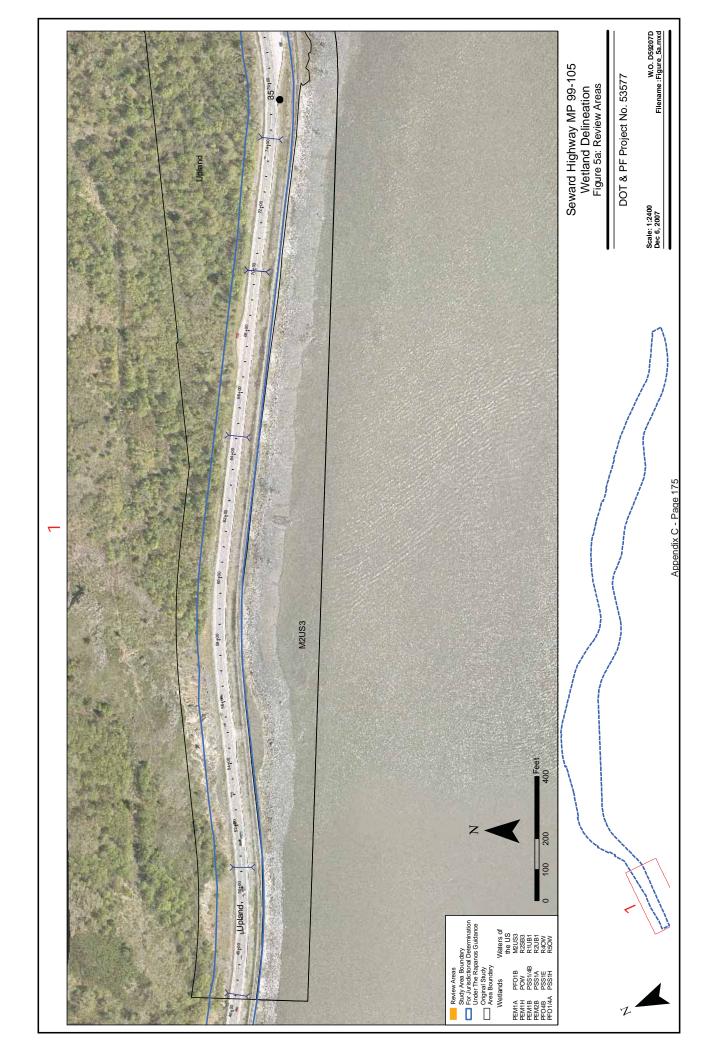
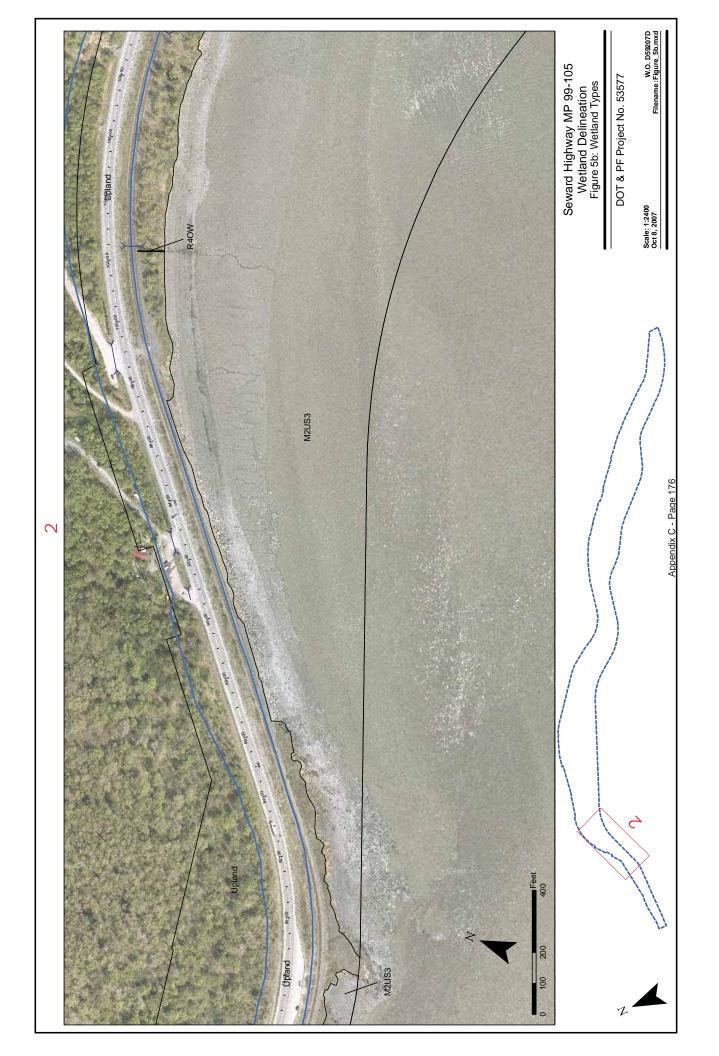
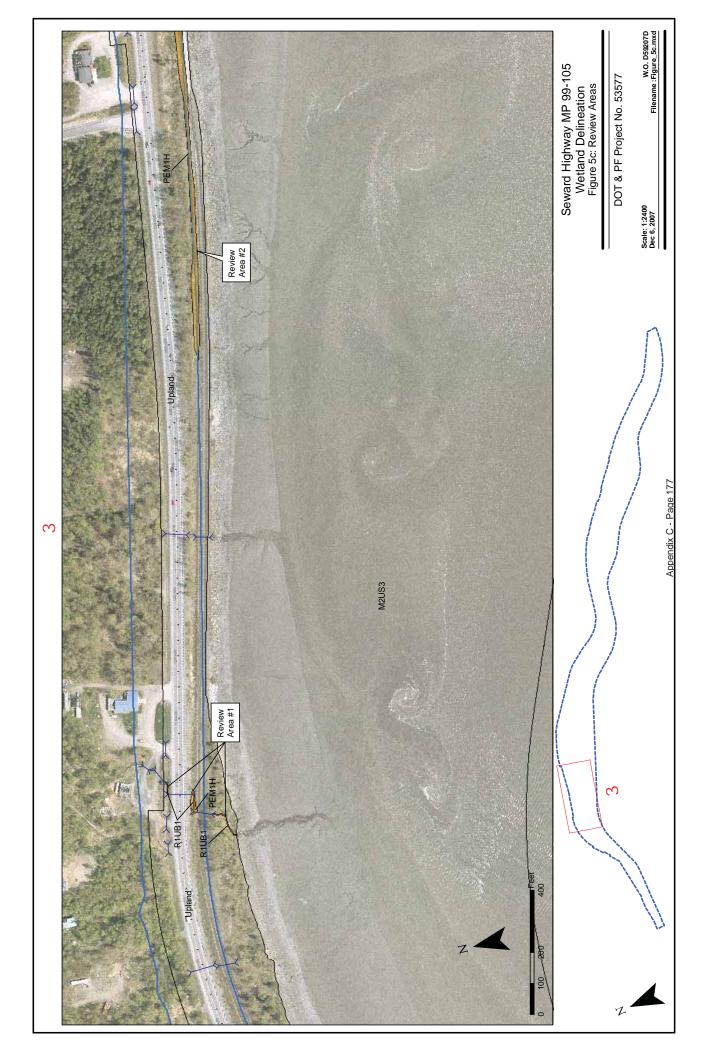
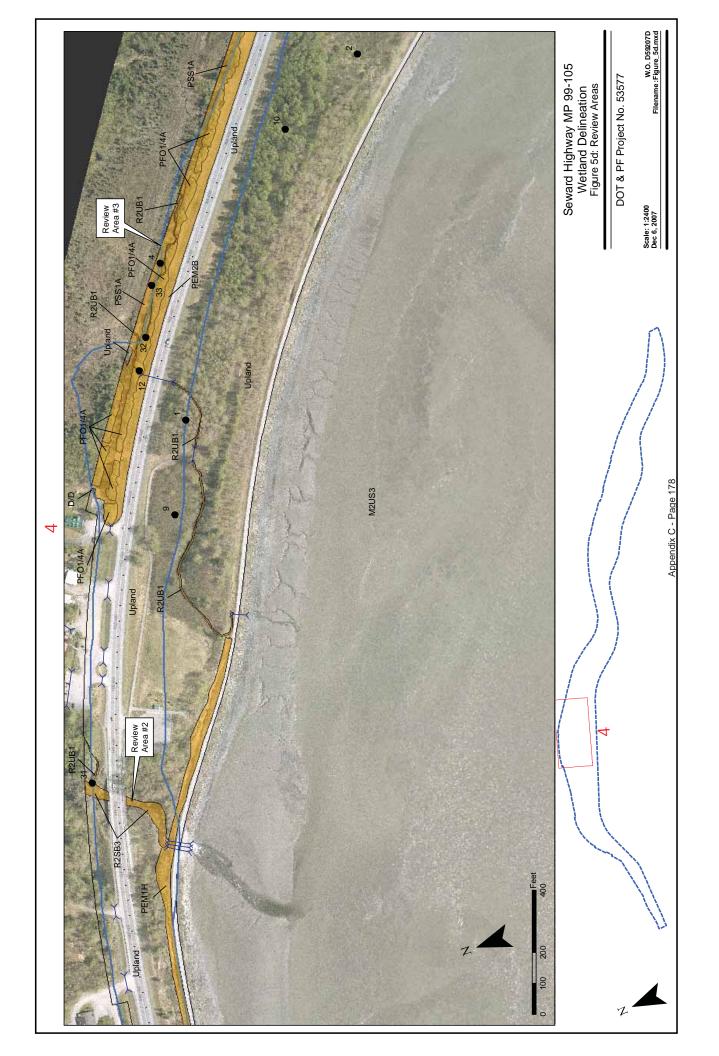
APPENDIX D

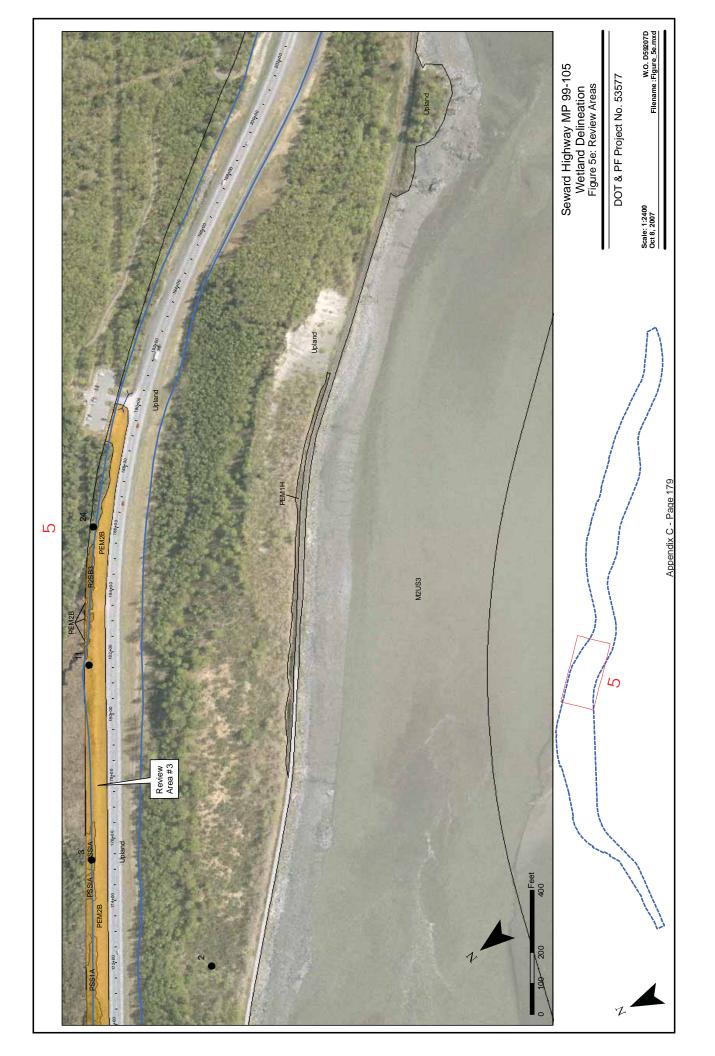
Preliminary Jurisdictional Determination

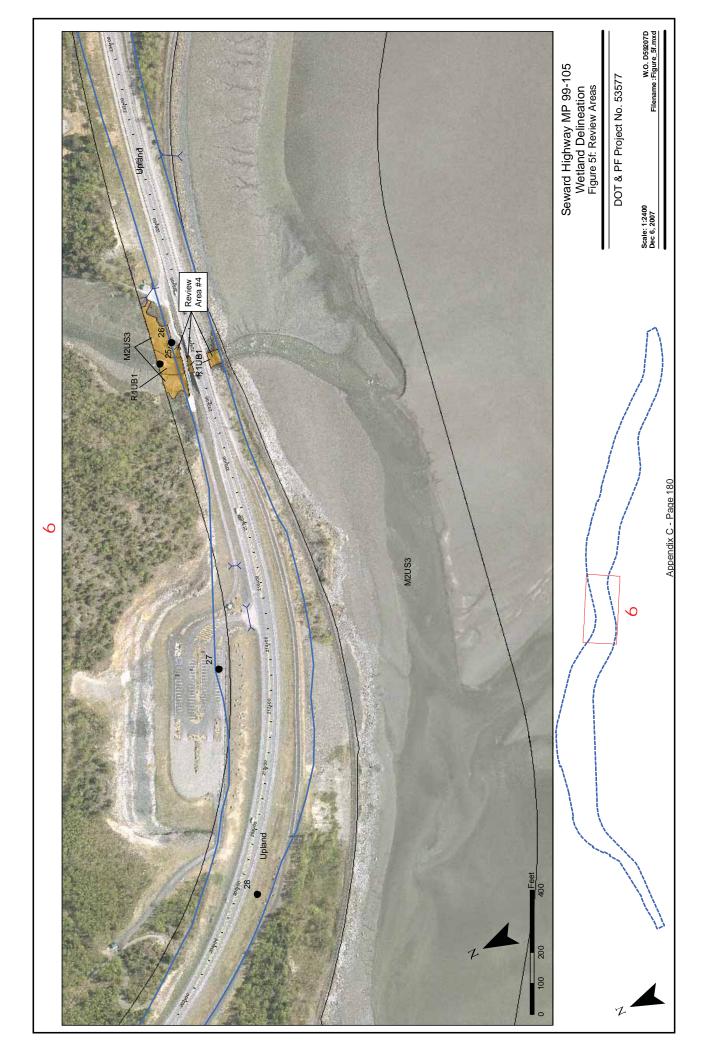


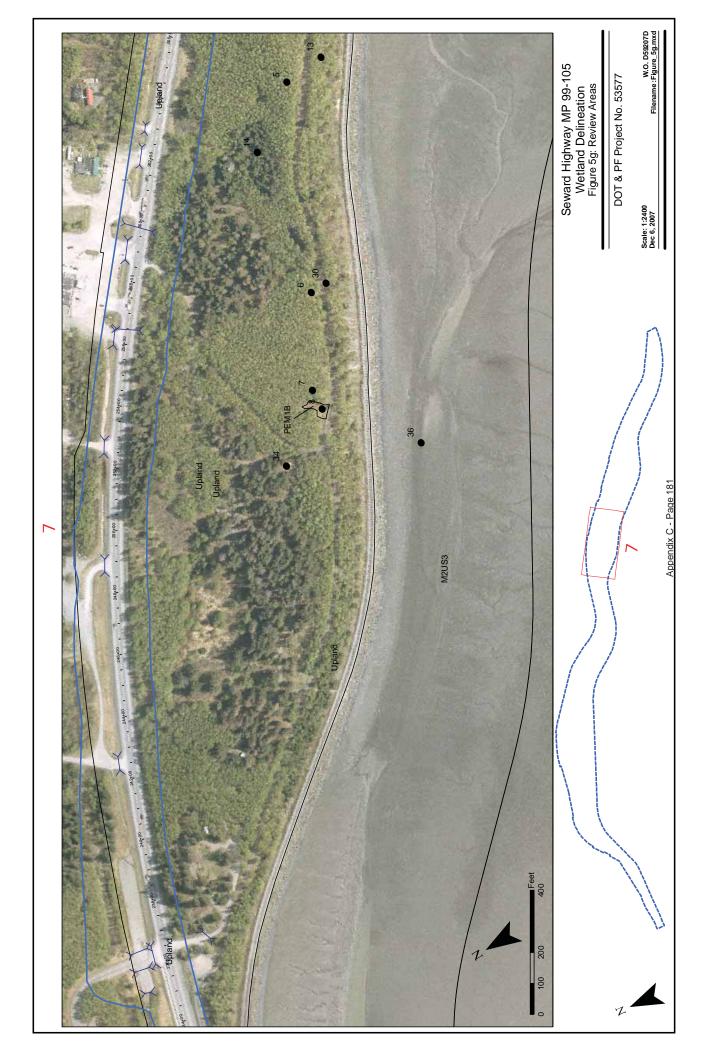


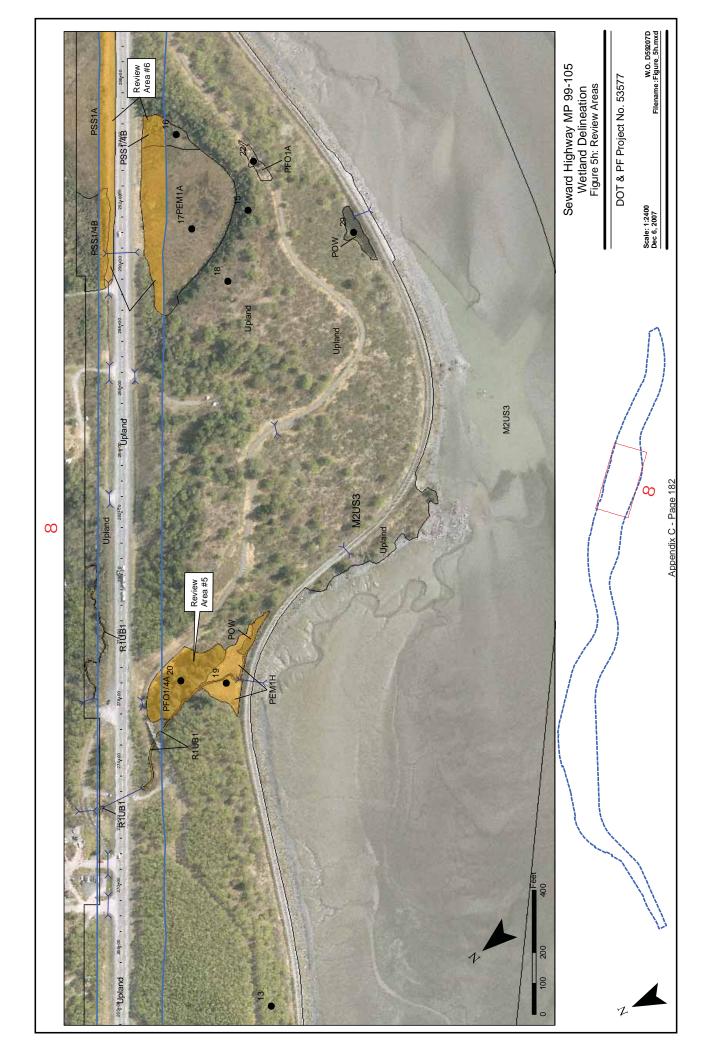


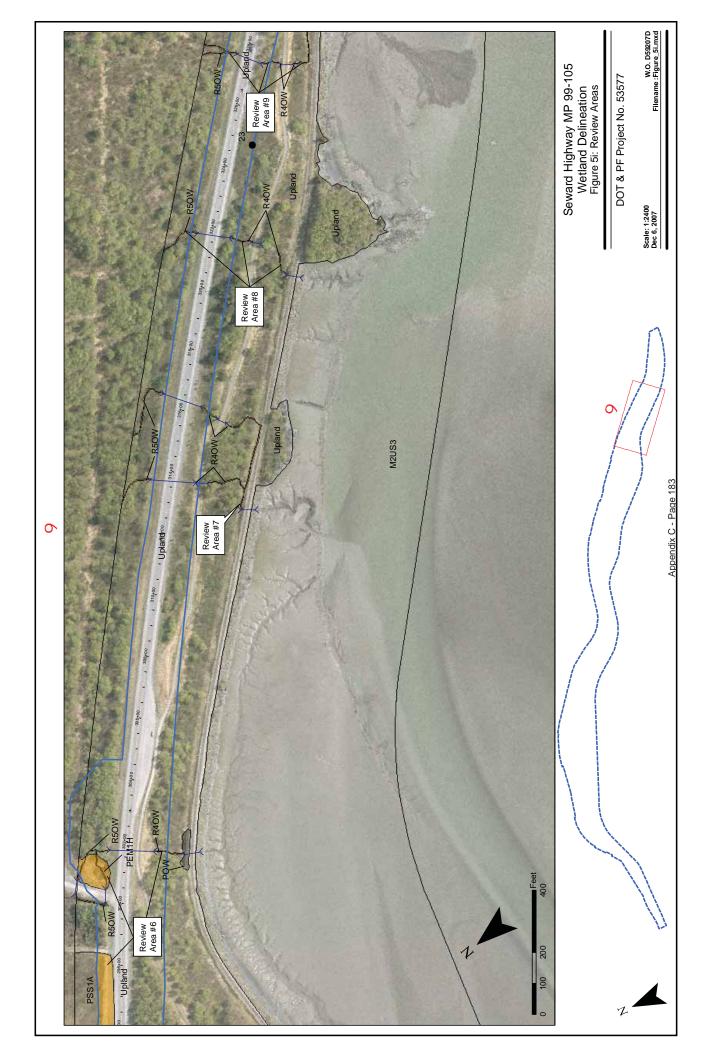


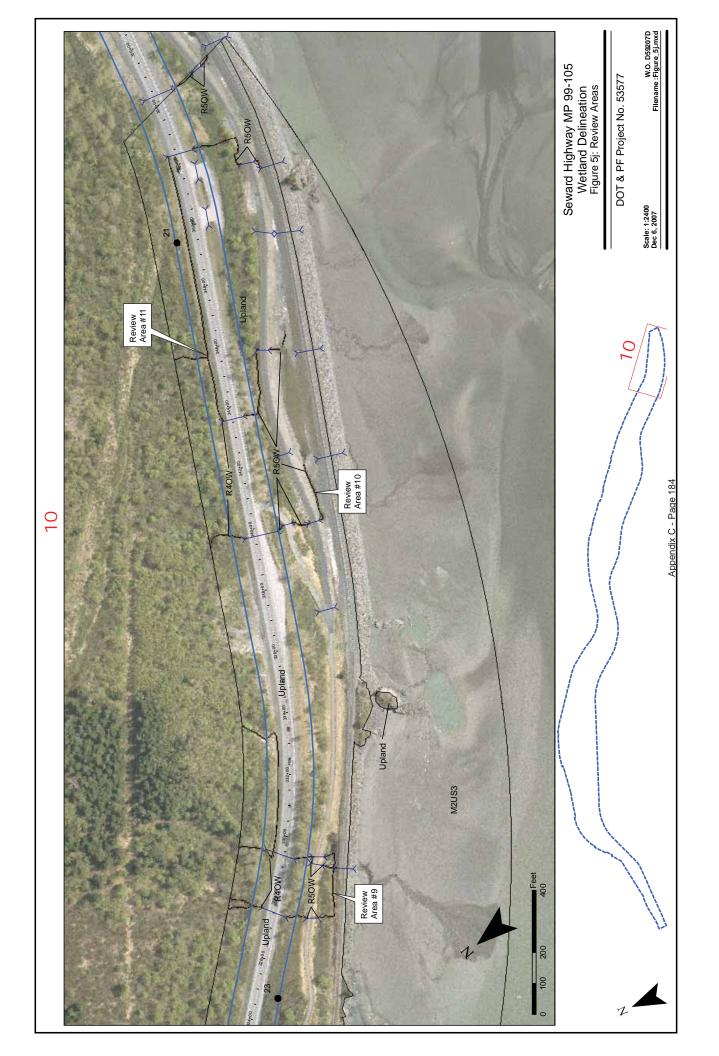












Pot 65						small trickle at outlet		0.05 of material				0.9' of dibdis	35' upstream of culvert under bise path		0.7 of debots in 3' of the outlet	500000000000000000000000000000000000000	0.3 of material	0.8 of debris; 0.05' standing water	material fils to stainline	0.2 of material	0.4 of material	0.15 of material		0.9' of material; intet of culvert under RR is 5 downstream of outlet		0.2 of material	water fowing at outlet that has percolated through holes in the pipe, also flow under the culvert at outlet-links to RR culvert 3' downstream of outlet, thy rap rock: at outlet.		almost completely dogged (18) with soil, rock and debris	pipe goes under RR as well with a stand pipe between the RR and road, emples onto rip-rap embarkment at the cosan	0.2' of material, mainly leaves; appears clear 5' back; 20' downstream is cliff at side of RR track	1.1' of sol with grass and equizetum plugging up culvert, less material inside	empties onto a steep embankmen undecut2-3	throught emplies onto rocky and steep embankment	empties onto a steep embankment	0.02' of coarse sand; drains onto a steep sandrock slope	falls onto rocks (no plungs pod); RR outvert inte is about 12 downstream of outlet	empties into dich between RR and road embarkment	RR culvert is 10' downstream of outlet	projects 2.9' from bank, emplies onto steep slope of rock	1' of material and then clears
Othernote	0.4' sedment, projecting from fill; cascade into plunge pod (6' deep		0.1' of material	0.1' of material							0.5 of material	0.7 of debris and then dear	debris in inlet 4' downstream then dear; 0.7' of material	4' downstraam of inlet large rock removed	inlet invert 1' above ditch invert		D2' of material	0.3' of debris		0.5' of material	0.1" of material	0.4" of material	0.5' of material at inlet but clear beyond 1'						0.05' of debris then clear 1' back	0.05' of material	0.7' of course sand	0.9 of coarse sandand debris; mostly dear 4' back	0.4 d'salland debris	0.6' of material	1.2 of material but mostly clear, material stoing off steep hilstope is plugging the inlet	0.2' of dift, grass and rods	02' of material	water ponded in didn; mostly desi with only 0.1" of material	1.f of material; mitered infet	0.3' of material	0.8' of material and then clear 2' back
Vegetation		dense brush at outlet				equizatem encreaching inlet: cottonwood, witow and equizatem at outlet				equizetum and abber at outlet	inter obscured by grass and equicetum	Inlet is brushy						outlet overgrown by brush and grass							equizebum at inlet					grasses encroaching on the inlet	willows encroadning at the inlet	grasses, small aspens and equizetum are encroaching the inter			grasses encroaching at the outlet			prass as and equizatum encroaching on the line.		smal cottorwood and grass at irlet	grasses, equizoum, frewed and obtomoods are encreaching on the hilet
Drainage		flow from west from road didn at hist; small histope tributary enters didn 25 west of inter	dains road olich from east and west at inlet; tributery from hill slope provides all the flow	drains road dilth from east and west at inlet	trickle through oulvert, drains road ditch from east and west sides;		drains E and W road dtch and small hillstope trib (trib enters dtch -20-ft W of Irlet).		drains hillstope tributary		drains hibspe tributary and east and west drainage dtches	dans small tributary and road ditch		drains road dtch	drains included road district (6) bing and	Adams a	distressed ditch	data basi sinas d	d'ains road dtch	drains road dich	drains tributary, low gradent, good flow	drains swale extending 50 degrees from highway intet	drains small tributary, outlet flow sources a mail stream that flows east abong the RR and emplies too india? Creek just upstream of RR outvert inter.	drains small tributary	drains road disch and thb of SH22 at high flows	d'ains road diich	drains road disch and small hillabpe tributery		drains road dich	drains road dtch	draine road dtch	drains road dlich	drains road dtch	drains road dich	drains road dich and hillstope tributary, seep entering dich -50 degrees to the east	drains road dildh	drains road ditch and hilbkope tributary that enters ditch 40' to the west from a 15' waterfall	drains road ditch with some seepage from hillstope diff	drains road diich and two tributaries	dains road didh	d ains road dilich
Stainline (h)							0.15		2.5	-	r	1.5	1.1		1.6	2.3				2	1.8		1.25		1.4		1.56		6.0	-		N/A			F		1.5	1.2	1.9		
Stali	1.3		8	8	8		0.55	0.00	2.3	1.8	2	1.5	2		1.8	ks 2.6		1.6	2	1.9	3		1.56	1.8			1.1			-		F					1.7				6.0
Fish Passage notes	cascade 15' downstream of outlet		01-06) su throm out of open extends from out of (800-10	steep riprap slope extends from outlet (80-100	drains onto steep slope (80' long, 40 degrees	outet too steep for fish	Second outwert under access road is 50-ft d's roubet. [Channel] drops off steeply dis of acces rd culvart no possible fish access	inlet clogged with fines and small gravel from hillstope failure (40' wide); 3' drop 3' downstre of outlet	steep cascade at outlet for 60 down to blies pa steep cascade 30' upstream of intel	0.8' of debris ologging inter, cascade 6' upstream of inter	teep drop-off downstream and 3' of indision in prevent passage	not too steep but size of stream may be limit		0.7 of material plugging inlet	plunges into steep cascade at outlet	outlet is a barrier because of large rip-rap roc and boush					pas sage barrier for updream juveniles at out of oulvert under bike path		outlet plunges onto rodes and steep cescad										outlet perched 2.1"								
o Brunng	bend in pipe a frind of the way	roots with debris dogging 15% of outlet; slight damage to outlet				inlet squashed attop 0.6			0		erosion at outfall is beginning to undermine oulvert		slightly squashed atinlet	outet is bent	ines damaged u.r. from bottom	outlet being undermined	and seloi	outet squashed and buried	some rim damage at inlet (0.3)					slightly squashed at outlet					inlet rim bent less than 0.8' at the top and side	0.7 of damage to side rim	rim cut and peeledback in places	rim bent 0.6' attop				rim bent 0.5' at the top	rimbent 0.4" at the top	damaged severely at the intel (3' of pipe broken, pulled apart and bent)	fu nos se un sando	rim demage	
Average Streambed Viden		20	2	channel	0.5		2.5	2	3.5	1.5	3.5	es	4	channel channel	2	4.5 (inlet); 5.5 (outet)		paulab on	no defined channel	channel	4 (irlet); 5 (outet)	no defined channel	2	2	1.5 (outlet)	no defined channel	-	channel channel	no defined channel		no defined channel	no defined channel	no defined channel		no defined channel	no defined channel	2.8	1.5	3.5		no defined channel
Plunge Pool OHW Widen	3.5	6					4.5																		2														4		
Plunge Pool Maximum Depth							0.4																		0.4														0.4		
Plunge Pool Length							e																		2.5														9		
Fill Depth (ft.)			4.5			10		0	8	0	_			22	8	10				2.5		4	4	12	100	40		4 (to RR track)	ø	9	9	10	4	4.5	0	9	10	3.5		9.9	ω
	2	2		2.5	60		3	2.4	2.8	2.5	60	13	13	1.	3.5	45		9	4	3	100	4	2.5	10	10		-	6	60	2.5	-		2	2	-	-	 	-	1.5	2	12
Streambed Material in Culvert	*	^	c	c	c	c	c	,	c	c	c	c	c	c	с с	c	>	. >	c	*	>	٨	c	c		c	c	c	c	c	c		c	c	c	c	c	c	c	c	c
Water Depth Inside Outfall Cultert Drop		0 bicke	0.25	0	0.05	0	0.1 2.2	0	0.2 0.9	0.05	0.03 1.3	nler); outler)	0.2 2.2	0	0.03 1.1	0.25 1.4	6	0	0	0	nlet): outlet)	0	0.1	0.3 (mlet); 0.5 (outlet)	0.2 stagnant 0.45 at rilet		outlet)		0	970	0	0		0 0.3	0.0	0	0.15 1.6	0.04 3.3	0.15 3.85	0 2.2	0 nmary Report
Wa Del Ins Cro		98	88	02	8	2	92	92	0 98	99	96	0.1 (nlet): 0.2 (outlet)	122 0	-	132 0.		82	╁		02	102 0.5 (inlet): 0.7 (outlet)	90	b 20	78 03 6	70 stag	72	82 O (inlet): 0.1 (outlet)	92	92	85	28	89	8	9	29	88	99	62 0.	99	72 (68 (
Dia		25	24	24	98	24	24	24	36	24	24	75	98	24	24	89	24	24	24	24	24	24	24 24	24	36	8	24	24	24	24	24	24	24	24	24	24	24	24	36	24	24 drotogic and H
Material	comugated	omugated sted	comugated	oomugated steel	comugated	comugated sted	comugated	sted	oomugated	oomugated	comugated sted	oomugahed steel	comugated	sted	sted compated compated	comigated	comugated	paragraphic	comugated	comugated	sted	oomugated steel	03.26 back = comugated steel	comugated	comugated	sted	oomugated	oomugated sted	comugated	comugated	comugated	comugated	oomugated	comugated sted	comugated	oomugated steel	sted	sted	comugated	comugated sted	sted sted 61 99-105 Hyd
Shape	round	round	round	round	round	round	round	round	round	round	round	round		round	round	round	round	round	round	round	round	round	round	round	round	round	round	round	round	round	round	round	round	round	round	round	_	round	round	round	round way, Milepo
DOT F. 031-2(55) Station (apperce)	806+05	909909	615+20	615+80	616+75	617450	620+70	623+80	631+00	632+80	638+80	644+00	646+80	648+10	658+30	687+75	004260	700+75	703+80	711400	800+60	826+60	station equi	80%20	91+00	96+20	103+60	108+00	109+80	113+05	126+80	131+05	136+20	141+50	143+80	155+40	159+60	161+00	164400	170+50	173+10 lewardHighw
Dowl Preliminary Sett ion (Shown on Figures 5a-5))	1343+89	1341+89	1335+17	1334+87	1333+92	1333+17	1329+32	1326+58	1318494	1317+09	1311+28	1305+85	1303+28	1291+34	1289+84	1262+48	1252461	1249+14	1246+09	1238+56	1148+40	1127+25	1113+87	1105+50	1104+90	1099+84	1092+40.35	1088+92	1082+70	1080+93	1068+45	1064+23	1059+94	1054+68	1062+37	1040+64	1036+54	1035+03	1031+96	1025+59	1022+97 4-Flave, 2007 St
Sheet	21	N	8	z	8	81	8	8	8	8	83	g	82		8 %		16			16	18	8	8	8	8	8	8	34	38	34	8	34	81	26	ы	81	88	84	8	33	35 aded by Inter
Site ID	ž		SH2.4	342.6	\$42.8	SH3	SP 24	8	946	H	\$	8	SH10	SH11	SH13	SH2	843	SH16	SH17	SH18	SH19	SH20	1218	SH22	8+53	SH24	8H25	SH26	3427	8HZ8	8459	SH30	SH31	SH32	8433	SH34	8436	SH36	28437	3H38	SH39 Data colle

Review Area 1

APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

A.	REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):
B.	DISTRICT OFFICE, FILE NAME, AND NUMBER:
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: A LANGE County/parish/borough: MUA City: A received. Center coordinates of site (lat/long in degree decimal format): Lat. Pick List, Long Pick List. Universal Transverse Mercator: Name of nearest waterbody: Cook Inlet Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Cook Inlet Name of watershed or Hydrologic Unit Code (HUC): Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): Office (Desk) Determination. Date: Field Determination. Date(s):
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
The	re Pick List "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:
	CWA SECTION 404 DETERMINATION OF JURISDICTION. Are- re Pick List "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters ² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters Isolated (interstate or intrastate) waters, including isolated wetlands
	b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: linear feet: width (ft) and/or acres. Wetlands: acres.
	c. Limits (boundaries) of jurisdiction based on: Pick List Elevation of established OHWM (if known):
	 Non-regulated waters/wetlands (check if applicable):³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION I: BACKGROUND INFORMATION

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.
² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

3 Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW Identify TNW: COOK Inlet

Summarize rationale supporting determination: Shbject to ebb & fluw of the tide and

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": An area of wetlands within this evaluation area is configuens with RPW and TAW

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: Pick List
Drainage area: Pick List
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

Tributary flows through Pick List tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW. Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are Pick List aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: RPW -> Turnagain Arm -> Cook Inlet Tributary stream order, if known:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

	(0)	Tributary is: Natural Artificial (man-made). Explain: Manipulated (man-altered). Explain:
		Tributary properties with respect to top of bank (estimate): Average width: feet Average depth: feet Average side slopes: Pick List.
		Primary tributary substrate composition (check all that apply): Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Other. Explain:
		Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Presence of run/riffle/pool complexes. Explain: Tributary geometry: Pick List Tributary gradient (approximate average slope): %
	(c)	Flow: Tributary provides for: Pick List Estimate average number of flow events in review area/year: Pick List Describe flow regime: Other information on duration and volume: Wirest data indicates stream dains hillside Surface flow is: Pick List. Characteristics:
		Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:
		Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list): Discontinuous OHWM. Explain:
		If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Oil or scum line along shore objects If ine shell or debris deposits (foreshore) If physical markings/characteristics Itidal gauges Other (list): Mean High Water Mark indicated by: If survey to available datum; If physical markings; If vegetation lines/changes in vegetation types.
(iii)	Cha	emical Characteristics: racterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.) Explain: tify specific pollutants, if known:

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.