State of Alaska
Department of Fish and Game
Sportfish Division

Nomination Form
Fish Distribution Database

Region: Southwestern

USGS Quad(s): Unimak A-5

Fish Distribution Database Number of Waterway: 302-16-10100-(0010)(2005)

Name of Waterway: ☐ USGS Name ☐ Local Name

☑ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

Nomination #: 06-383	ADF&G Fisheries Scientist	Date: 10/19/06
Revision Year: 2007	ADNR OHMP Operations Mgr.	Date: 10/19/06
Revision to: Atlas ___ Catalog ___ Both X	FDD Project Biologist	Date: 10/13/06
Revision Code: A-2	Cartographer	Date: 10/1/06

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Coho salmon	August 20-28, 2005		X		☑
Pink salmon	August 20-28, 2005			X	☑
					☐
					☐
					☐

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments: Juvenile coho salmon were collected as part of Akutan Airport Mast Plan Anadromous Fish Stream Survey August 2005 by HDR. Approximately 20 adult pink and one sockeye salmon were visually observed in 302-12-10100.

Add new stream 302-12-10100 w/coho salmon rearing and pink salmon presence

Add new lake 302-12-10100-0010 w/coho salmon rearing

Add new stream 302-12-10100-2005 w/coho salmon rearing.

Add new stream 302-16-10100 w/Coho salmon rearing & pink salmon present

Add lake 302-16-10100-0010 w/ coho salmon rearing

Add stream 302-16-10100-2005 w/coho salmon rearing

Name of Observer (please print): ERIN CUNNINGHAM

Signature: erin cunningham

Date: 10 OCT 2006

Agency: HDR-Alaska

Address: 2525 C Street, Suite 305
Anchorage, alaska 99503

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Fish Distribution Database.

Signature of Area Biologist: Reviewed by Forrest Bowers Date: Revision 02/05 Dutch Harbor AMB

Name of Area Biologist (please print).

J Johnson

From: Forrest R Bowers [forrest_bowers@fishgame.state.ak.us]
Sent: Tuesday, October 17, 2006 12:05 PM
To: j_johnson@fishgame.state.ak.us
Subject: Re: Akun Island

Sorry I didn't get back to you sooner. I have no objections to them.

Forrest

----- Original Message -----
From: J Johnson <j_johnson@fishgame.state.ak.us>
Date: Tuesday, October 17, 2006 10:06 am
Subject: Akun Island

> Forrest
>
>
>
> What do you think the stream addition proposed by HDR?
>
>
>
> J. Johnson
>
> ADF&G
>
> Fish Distribution Database
>
> Project Biologist
>
> 907-267-2337
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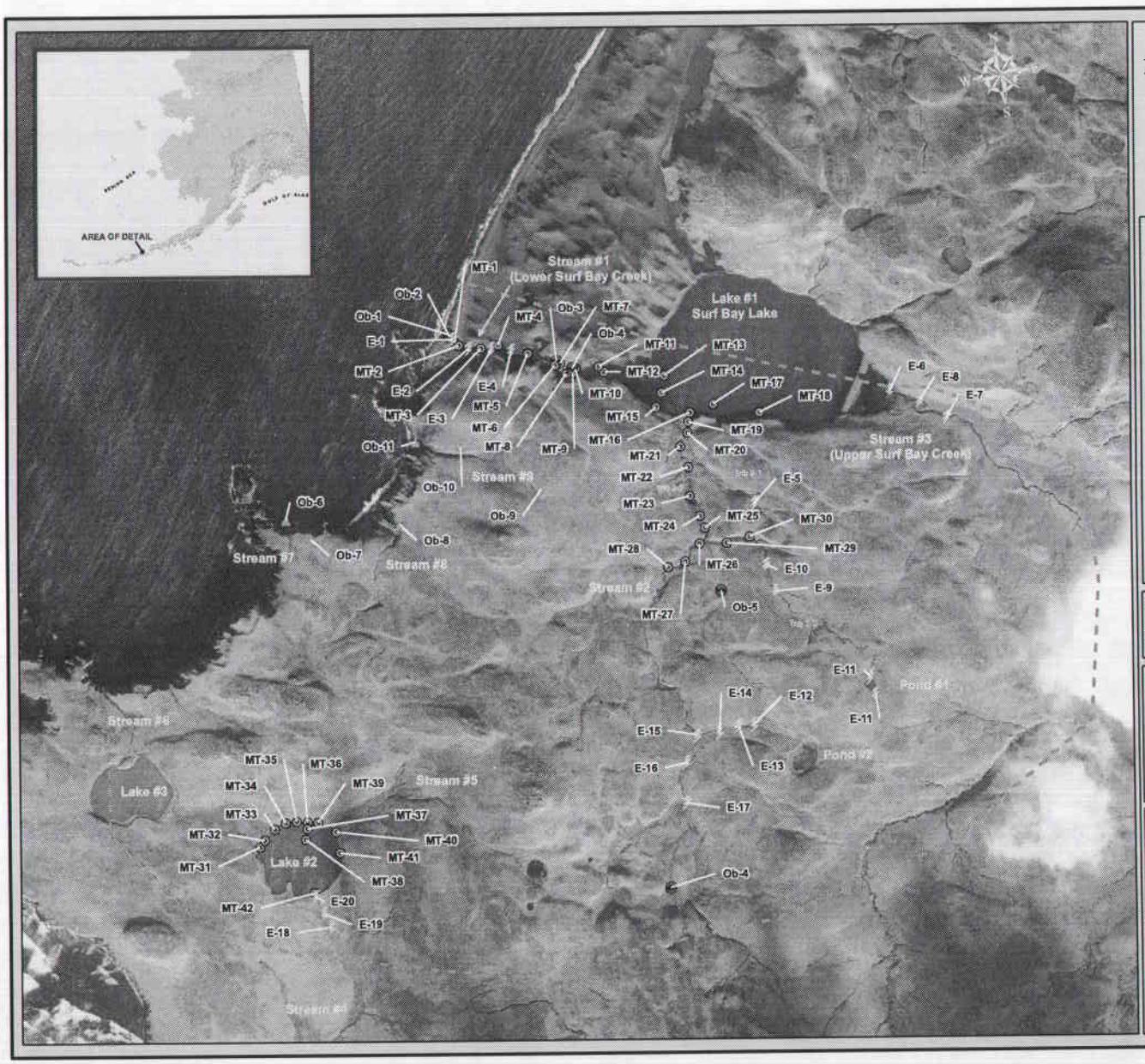


Akun Island Airport Fisheries Field Report

Akun Island Fisheries Study Sample Sites

LEGEND

- Electrofish Locations
- Minnow Trap Locations
- Observation Points-No Fish
- Observation Points-Fish
- study area boundary

DATE: December 2005

DATA SOURCE: USGS, ADOT&PF, HDR

MAP NOTES:

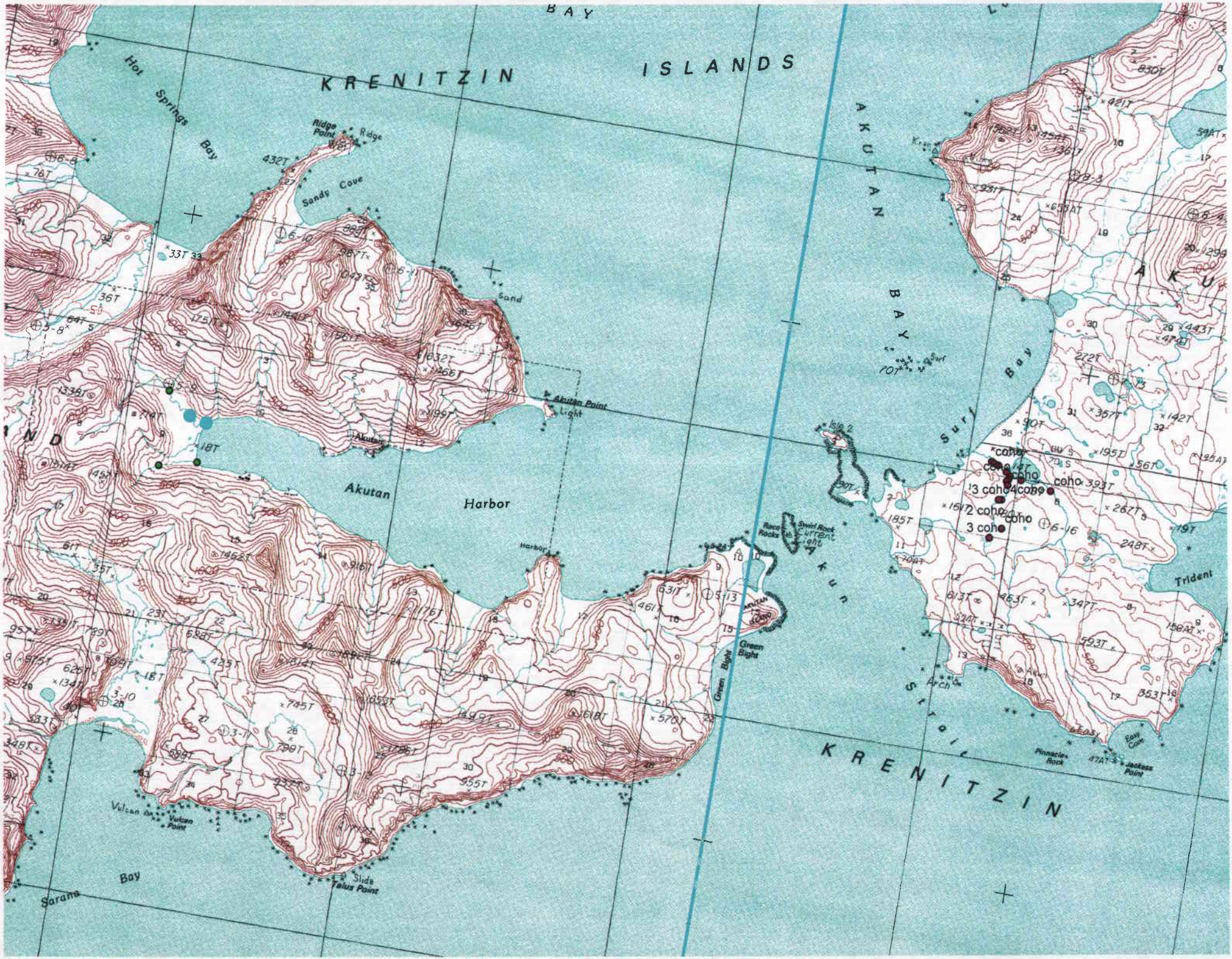
0 200 400 600
Feet

0 50 100 150 200
Meters

PREPARED FOR:

FIGURE

1



KRENITZIN ISLANDS
BAY
Hot Springs Bay
Ridge Point
Ridge
Sandy Cove
Sand
Akutan Point
Light
Akutan
Harbor
AKUTAN BAY
Surf Bay
Isle 2
Race Rocks
Swirl Rock
Current Light
Green Bight
Akun Strait
Trident
Pinnacle Rock
Easy Cove
Jackass Point
KRENITZIN
Vulcan
Vulcan Point
Slide
Talus Point
Sarana Bay
coho
3 coho
4 coho
2 coho
3 coho

LOCATION	N2	DATE	N4	N5	N6	lat	long	SPECIES
Stream #1	Surf Bay Creek	8/20/2005	N/A	8/21/2005	11:15am	54.15058	-165.60579	coho
Stream #1	Surf Bay Creek	8/20/2005	N/A	8/21/2005	N/A	54.15036	-165.60514	coho
Stream #1	Surf Bay Creek	8/20/2005	N/A	8/21/2005	12:30pm	54.15018	-165.60386	2 coho
Lake #1	Surf Bay Lake	8/20/2005	N/A	8/21/2005	1:27pm	54.14940	-165.60138	2 coho
Lake #1	Surf Bay Lake	8/20/2005	N/A	8/21/2005	1:40pm	54.14877	-165.60022	coho
Lake #1	Surf Bay Lake	8/20/2005	N/A	8/21/2005	1:57pm	54.14848	-165.59705	6 coho
Stream #2	Surf Bay Trib					54.14825	-165.60048	3 coho
Stream #2	Surf Bay Trib	8/21/2005	3:18 PM	8/25/2005	11:54am	54.14792	-165.60090	4coho
Stream #2	Surf Bay Trib	8/21/2005	3:30 PM	8/25/2005	12:14pm	54.14735	-165.60045	coho
Stream #2	Surf Bay Trib	8/21/2005	4:07 PM	8/25/2005	2:17pm	54.14490	-165.60144	2 coho
Stream #2	Surf Bay Trib	8/21/2005	4:00pm	8/25/2005	2:30pm	54.14482	-165.60225	3 coho
				8/28/2005		54.14040	-165.60014	coho
				8/28/2005		54.13862	-165.60306	3 coho
				8/28/2005		54.14757	-165.58856	coho

Stream 1: Looking toward Surf Bay; mouth of Stream 1 visible.

Stream 1: Riffle habitat, sand dunes/vegetated banks visible, looking downstream.

Stream 1: Looking upstream; photo taken on dunes near E-3; area of MT-6-8 visible.

Stream 1: Looking upstream; collapsing streambank (dunes) visible.

Stream 2: near the mouth at Lake 1; water level exceeds bank-full width; near MT-21.

Stream 2 Tributary: near E-5; 132 mm Dolly Varden captured; looking upstream.

Stream 2: near MT-25 (114mm and 146mm Dolly Varden captured), looking downstream.

Stream 2: near MT-25, looking upstream; cobble substrate visible.

Lake 1: MT-15 visible.

Lake 2 in the center; Lake 3 visible in background.

Electrofishing Results - Akun Island, August 2005

Stream #1	GPS Location		Date	Species	Size (mm)	ID#
Stream #1	54.15078923	-165.61251635	8/20/2005	Dolly Varden	75	E-1
				Dolly Varden	163	E-1
				Sculpin	50	E-1
				Dolly Varden	100	E-2
	54.15047407	-165.61182780		Dolly Varden	100	E-2
				Dolly Varden	125	E-2
	54.15036760	-165.61082065		Dolly Varden	59	E-3
	54.15022980	-165.60992579		Dolly Varden	53	E-4
				Dolly Varden	56	E-4
				Flounder	89	E-4
Stream #2	**GPS Location**		**Date**	**Species**	**Size (mm)**	**ID#**
Trib #2-1	54.14525910	-165.59986428	8/28/2005	Dolly Varden	132	E-5
Stream #2	**GPS Location**		**Date**	**Species**	**Size (mm)**	**ID#**
Trib #2-3	54.14288635	-165.59947176	8/28/2005	Dolly Varden	210	E-9
	54.14360588	-165.59972207		Dolly Varden	42	E-10
				Dolly Varden	68	E-10
				Dolly Varden	105	E-10
				Dolly Varden	110	E-10
				Dolly Varden	140	E-10
				Dolly Varden	144	E-10
				Dolly Varden	200	E-10
Stream #2	**GPS Location**		**Date**	**Species**	**Size (mm)**	**ID#**
Trib #2-4	54.13951649	-165.60139214	8/28/2005	Dolly Varden	94	E-12
				Dolly Varden	95	E-12
				Dolly Varden	98	E-12
				Dolly Varden	110	E-12
				Dolly Varden	132	E-12
				Dolly Varden	135	E-12
	54.13953527	-165.60212052		Coho	78	E-13
				Dolly Varden	68	E-13
	54.13946745	-165.60303249		Dolly Varden	65	E-14
				Dolly Varden	95	E-14
				Dolly Varden	158	E-14
Stream #2	**GPS Location**		**Date**	**Species**	**Size (mm)**	**ID#**
Stream #2 MC	54.13947802	-165.60404560	8/28/2005	Dolly Varden	118	E-15
				Dolly Varden	125	E-15
				Dolly Varden	138	E-15
				Dolly Varden	146	E-15
				Dolly Varden	150	E-15
				Dolly Varden	164	E-15
Stream #2 MC	54.13879885	-165.60470062	8/28/2005	Dolly Varden	42	E-16
				Dolly Varden	78	E-16
				Dolly Varden	84	E-16
				Dolly Varden	95	E-16
				Dolly Varden	125	E-16
				Dolly Varden	165	E-16
Stream #2 MC	54.13775235	-165.60503558	8/28/2005	Coho	56	E-17
				Coho	73	E-17
				Dolly Varden	73	E-17
				Dolly Varden	77	E-17
				Dolly Varden	165	E-17
Stream #3	**GPS Location**		**Date**	**Species**	**Size (mm)**	**ID#**
Upper Surf Bay Creek	54.14764436	-165.59292535	8/28/2005	Dolly Varden	45	E-6
	54.14671064	-165.59053834		Dolly Varden	105	E-7
	54.14726823	-165.59163688		Dolly Varden	100	E-8
	54.14671064	-165.59053834		Coho	49	E-7

HDR | ONE COMPANY *Many Solutions*℠

Transmittal

Attention: Tammy Davis	Date: 1/31/06	Job No: 3940-19
To: Alaska Department of Fish and Game Division of Sport Fish		Phone: 644-2000

Regarding: Fisheries Data Submittal per Fish Resource Permit SF-2005-104 (expiration date: 12/31/2005)

We are sending you: ☒ **Attached** ☐ **Under separate cover via _____ the following items**

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change Order ☒ Other memo, figure, data table

Copies	Date	No.	Description
1	1/31/06	1	Fisheries Dad Submittal Memo
1	1/31/06	1	Figure 1: Akun Island Fisheries Study Sample Sites
1	1/31/06	11	Akun Fish Data

These are transmitted as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☒ For review/comment ☐ Other _____
☐ For bids due _____ ☐ Prints returned after loan to us

Remarks Copies of this Fisheries Data Submittal have been e-mailed to both Tammy Davis and Len Schwarz. If you have any questions please contact Erin Cunningham at HDR 644-2115.

Copy to Len Schwarz Signed Kate Pearson, HDR Alaska.

If enclosures are not as noted, please notify us at once

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Stream #1	08/20/05	11:20am	8/20/2005	4:45pm	54.15068514	-165.61243775	MT-1	Dolly Varden	79				Trap #1 set down stream of LWD on RB
Surf Bay Creek								Dolly Varden	93				Width: 10m, Depth: 1m; substrate: sand 95% gravel 5%
								Dolly Varden	94				Gradient ~1%; vegetation: herbaceous (grasses)
								Dolly Varden	106				Side of under cut banks/sand w/some vegetation and LWD
								Dolly Varden	113				
								Dolly Varden	122	6	0	0	
Stream #1	08/20/05	11:20am	8/20/2005	4:35pm	54.15059887	-165.61227531	MT-2	Dolly Varden	112				Width 2.5m, depth 0.5m; substrate: sand; gradient: ~2%;
Surf Bay Creek								Dolly Varden	122				Trap#2 set at upstream end of LB of LWD
								Dolly Varden	124				Water quality taken upstream of LWD/dam of trap #2 on RB
								Dolly Varden	132	4	0	0	
Stream #1	08/20/05	N/A	8/20/2005	6:02pm	54.15043329	-165.61129443	MT-3	3-spine stickleback	49				Trap set at bend, sandy banks unstable
Surf Bay Creek								Dolly Varden	59				Herb. Veg. (grasses, yarrow, sedges, juncus, lupine, dock)
								Dolly Varden	71				Over hanging vegetation not abundant
								Dolly Varden	93				Trap set at LB looking up; flow-less than 1 cfs
								Dolly Varden	119	4	0	1	
Stream #1	08/20/05	N/A	8/20/2005	6:12pm	54.15044540	-165.61047853	MT-4	3-spine stickleback	50				
Surf Bay Creek								Dolly Varden	74				
								Dolly Varden	131				
								Dolly Varden	133	3	0	1	
Stream #1	08/20/05	N/A	8/21/2005	11:00am	54.15010282	-165.60918153	MT-5	Dolly Varden	67				Width: 2.5m, Depth: 1m; substrate: sand/silt; Gradient-less than 1%
Surf Bay Creek								Dolly Varden	105				Vegetation: grasses & sedges; Flow 1cfs+
								Dolly Varden	124	3	0	0	Trap set at RB, sand dunes at LB-8m high
													Fished for approximately twenty hours
Stream #1	08/20/05	N/A	8/21/2005	11:10am	54.14968472	-165.60803799	MT-6	3-spine stickleback	49				Set RB at start of large pond
Surf Bay Creek								3-spine stickleback	52				Width: > 20m, Depth: > 1m; substrate: sand/silt; gradient 1-2%;
								3-spine stickleback	54				Vegetation: yarrow, grasses etc.; flow is almost nonexistent
								3-spine stickleback	71	0	0	4	Pond complex opens with various sedges/wetland vegetation
													Approximatetly 10 adult pink salmon present in pool complex
													Juveniles present
													Bank steepness varies from 0-75 degrees
Stream #1	08/20/05	N/A	8/21/2005	11:15am	54.14972087	-165.60777135	MT-7	3-spine stickleback	38				Trap set on the RB upstream of trap #6 in pool
Surf Bay Creek								3-spine stickleback	43				Herbaceous vegetation (grasses/sedges) -bank at ~85 degrees
								3-spine stickleback	44				Substrate: sand/silt with organic/muck layers
								3-spine stickleback	45				Pond has abundant aquatic vegetation
								3-spine stickleback	46				Photo taken of coho juvenile with digital camera
								3-spine stickleback	46				
								3-spine stickleback	47				
								3-spine stickleback	47				
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								3-spine stickleback	56				

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Stream #1	08/20/05	N/A	8/21/2005	11:15am	54.14972087	-165.60777135	MT-7	3-spine stickleback	57				
Surf Bay Creek								3-spine stickleback	57				
								3-spine stickleback	58				
								3-spine stickleback	58				
								3-spine stickleback	59				
								3-spine stickleback	59				
								3-spine stickleback	62				
								3-spine stickleback	67				
								Coho	72				
								Sculpin (spp)	104	0	1	49	
Stream #1	08/20/05	N/A	8/21/2005	1:00pm	54.14942651	-165.60756900	MT-8	3-spine stickleback	40-60				Set at LB center
Surf Bay Creek								3-spine stickleback	40-60				Photo #15 looking downstream at trib
								3-spine stickleback	40-60				Width: > 20m; depth: 1+m in pools; substrate: sand/silt; gradient: 1-2%
								3-spine stickleback	40-60				vegetation: grasses, sedges, wetland plants, flow < 1cfs
								3-spine stickleback	40-60				Photo #14 looking up at pond complex
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	60+	0	0	10	
Stream #1	08/20/05	N/A	8/21/2005	12:05pm	54.14942566	-165.60726651	MT-9	3-spine stickleback	53				Channel widens into wetland complex w/ little flow. Banks 0-85 degrees
Surf Bay Creek								Dolly Varden	80				1 adult pink salmon and multiple juveniles (unsp) observed
								Dolly Varden	81	2	0	1	Complex joins with small trib on RB with steep gradient and flow
Stream #1	08/20/05	N/A	8/21/2005	N/A	54.14950068	-165.60711907	MT-10	3-spine stickleback	33				Trap set at LB of complex within aquatic vegetation~ 0.3m deep
Surf Bay Creek								3-spine stickleback	40				Photo taken with digital camera
								3-spine stickleback	42				Upper pond complex opens into the wetted area; lake just upstream.
								3-spine stickleback	43				
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								3-spine stickleback	51				

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Stream #1	08/20/05	N/A	8/21/2005	N/A	54.14950068	-165.60711907	MT-10	3-spine stickleback	51				
Surf Bay Creek								3-spine stickleback	51				
								3-spine stickleback	51				
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								3-spine stickleback	60				
								3-spine stickleback	61				
								3-spine stickleback	61				
								3-spine stickleback	63				
								Coho	79				
								Dolly Varden	61				
								Dolly Varden	62				
								Dolly Varden	150	3	1	80	
Stream #1	08/20/05	N/A	8/21/2005	12:25	54.14947374	-165.60604764	MT-11	3-spine stickleback	0-40				Trap set at LB of upper end of complex
Surf Bay Creek								3-spine stickleback	0-40				Width: 4m, depth: 1m; Substrate: sand/silt
								3-spine stickleback	0-40				Gradient: ~2%; flow: less than 1cfs (minimal)
								3-spine stickleback	0-40				Juveniles observed
								3-spine stickleback	0-40				Dolly Varden=53mm at mouth of large open complex/pond
								3-spine stickleback	0-40				
								3-spine stickleback	0-40				
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								3-spine stickleback	0-40				
								3-spine stickleback	0-40				
								3-spine stickleback	0-40				
								3-spine stickleback	0-40				
								3-spine stickleback	0-40				
								3-spine stickleback	0-40				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Stream #1	08/20/05	N/A	8/21/2005	12:25	54.14947374	-165.60604764	MT-11	3-spine stickleback	40-60				
Surf Bay Creek								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								Dolly Varden	60				
								Dolly Varden	91	2	0	92	
Stream #1	08/20/05	N/A	8/21/2005	12:30pm	54.14931159	-165.60584058	MT-12	3-spine stickleback	40-60				Trap set on LB of the complex at the edge of reed grass
Surf Bay Creek								3-spine stickleback	40-60				Depth: 0.5m; substrate: sand/silt; flow less than 1cfs
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ie stickleb	Comments
Stream #1	08/20/05	N/A	8/21/2005	12:30pm	54.14931159	-165.60584058	MT-12	3-spine stickleback	40-60				
Surf Bay Creek								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								Coho	68				
								Coho	79				
								Dolly Varden	66				
								Dolly Varden	77				
								Dolly Varden	80				
								Dolly Varden	104				
								Dolly Varden	109				
								Dolly Varden	111	6	2	69	
									MT Totals:	**33**	**4**	**307**	

Waterbody	Set Date	Set Time	Pick Date	Pick Time	Location		Trap Site #	Fish Species	Size (mm)	DV Totals	Coho Totals	3-Spine T	Comments
Lake #1	8/20/05	N/A	8/21/2005	1:27pm	54.14896405	-165.60311529	MT-13	3-spine stickleback	40-60				Shoreline is vegetated and marshy
Surf Bay Lake								3-spine stickleback	40-60				Trap #13 set at west side of pond within grass/vegetated mats.
								3-spine stickleback	40-60				Trap #13 set ~ 25m towards center of lake

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Lake #1	8/20/05	N/A	8/21/2005	1:27pm	54.14896405	-165.60311529	MT-13	3-spine stickleback	40-60				Photo 2: Trap #14-looking west at south end of lake
Surf Bay Lake								3-spine stickleback	40-60				also visible: Trap #13 overlooking vista and pond facing north
								3-spine stickleback	40-60				Two Swans in observed in lake
								3-spine stickleback	40-60				Temp taken at mouth of trib and at trap #16
								3-spine stickleback	40-60			

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Lake #1	8/20/05	N/A	8/21/2005	1:27pm	54.14896405	-165.60311529	MT-13	Dolly Varden	124				
Surf Bay Lake								Dolly Varden	138	2	0	74	
Lake #1	8/20/05	N/A	8/21/2005	1:27pm	54.14853514	-165.60336104	MT-14	3-spine stickleback	50				
Surf Bay Lake								3-spine stickleback	51				
								3-spine stickleback	51				
								Coho	75				
								Coho	78				
								Dolly Varden	65	1	2	3	
Lake #1	8/20/05	N/A	8/21/2005	1:27pm	54.14817700	-165.60371697	MT-15	3-spine stickleback	0-40				
Surf Bay Lake								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								Dolly Varden	46	1	0	28	
Lake #1	8/20/05	N/A	8/21/2005	1:40pm	54.14790363	-165.60219389	MT-16	Coho	59				
Surf Bay Lake								Dolly Varden	65				
								Dolly Varden	75				
								Dolly Varden	110				
								Sculpin	100				
								Sculpin	100				
								Sculpin	110				
								Sculpin	110	3	1	0	
Lake #1	8/20/05	N/A	8/21/2005	1:50pm	54.14802820	-165.60107582	MT-17	Sculpin	100	0	0	0	Trap set ~ 10-15m off shore in pond
Surf Bay Lake													
Lake #1	8/20/05	N/A	8/21/2005	1:57pm	54.14761890	-165.59902354	MT-18	3-spine stickleback	62				
Surf Bay Lake								3-spine stickleback	63				
								3-spine stickleback	65				
Lake #1	8/20/05	N/A	8/21/2005	1:57pm	54.14761890	-165.59902354	MT-18	3-spine stickleback	69				
Surf Bay Lake								Coho	63				
								Coho	72				
								Coho	74				
								Coho	75				
								Coho	79				
								Coho	81				
								Dolly Varden	74				
								Dolly Varden	88				
								Sculpin	100+	2	6	4	
									Lake #1 MT total:	9	9	109	

Waterbody	Set Date	Set Time	Pick Date	Pick Time	Location		Trap Site #	Fish Species	Size (mm)	DV Totals	Coho Totals	3-Spine T	Comments
Stream #2	8/20/05	N/A	8/21/2005	2:15pm	54.14766811	-165.60232548	MT-19	Dolly Varden	85				
Surf Bay Trib								Dolly Varden	100				
								Dolly Varden	108				
								Dolly Varden	114				
								Dolly Varden	115				
								Dolly Varden	123				
								Dolly Varden	125				
								Dolly Varden	145				

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Stream #2	8/20/05	N/A	8/21/2005	2:15pm	54.14766811	-165.60232548	MT-19	Dolly Varden	151				
Surf Bay Trib								Dolly Varden	163	10	0	0	
Stream #2					54.14738593	-165.60245354	MT-20	Coho	66				
Surf Bay Trib								Coho	69				
								Coho	114				
								Dolly Varden	75				
								Dolly Varden	75				
								Dolly Varden	77				
								Dolly Varden	78				
								Dolly Varden	83				
								Dolly Varden	85				
								Dolly Varden	88				
								Dolly Varden	94				
								Dolly Varden	94				
								Dolly Varden	101				
								Dolly Varden	102				
								Dolly Varden	104				
								Dolly Varden	109				
								Dolly Varden	115				
								Dolly Varden	120				
								Dolly Varden	120				
								Dolly Varden	124				
								Dolly Varden	124				
								Dolly Varden	130				
								Dolly Varden	135				
								Dolly Varden	145				
								Dolly Varden	149				
								Dolly Varden	161				
								Sculpin	100				
								Sculpin	100	23	3	0	
Stream #2	8/21/05	15:18	8/25/2005	11:54am	54.14705769	-165.60287423	MT-21	Coho	114				Trap set at RB
Surf Bay Trib								Dolly Varden	80				Substrate: sand w/small gravel and cobble
								Dolly Varden	87				Vegetation: herbaceous (grasses & aquatic veg)
								Dolly Varden	92				Flow: < 1cfs; gradient: ~2-4%
								Dolly Varden	95				
								Dolly Varden	96				
								Dolly Varden	100				
								Dolly Varden	100				
								Dolly Varden	102				
								Dolly Varden	103				
								Dolly Varden	104				
								Dolly Varden	104				
								Dolly Varden	109				
								Dolly Varden	109				
								Dolly Varden	110				
								Dolly Varden	111				
								Dolly Varden	115				
								Dolly Varden	122				
								Dolly Varden	124				
								Dolly Varden	125				
								Dolly Varden	129				
								Dolly Varden	130				
								Dolly Varden	132				
								Dolly Varden	136				
								Dolly Varden	138				
								Dolly Varden	139				
								Dolly Varden	140				
								Dolly Varden	163				
								Dolly Varden	165				
								Dolly Varden	189				
								Sculpin	100	29	1	0	
Stream #2	8/21/05	15:30	8/25/2005	12:14pm	54.14648183	-165.60264299	MT-22	Coho	62				Trap set at LB
Surf Bay Trib								Coho	73				Photo #6 taken looking north from trap #22
								Coho	82				Depth: 0.5m, width: 0.5m; Gradient: ~2-4%; flow <1cfs
								Coho	113				Substrate: gravels and small cobbles
								Dolly Varden	75				
								Dolly Varden	86				
								Dolly Varden	86				
								Dolly Varden	89				
								Dolly Varden	89				
								Dolly Varden	98				

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Stream #2	8/21/05	15:30	8/25/2005	12:14pm	54.14648183	-165.60264299	MT-22	Dolly Varden	100				
Surf Bay Trib								Dolly Varden	101				
								Dolly Varden	104				
								Dolly Varden	110				
								Dolly Varden	111				
								Dolly Varden	111				
								Dolly Varden	120				
								Dolly Varden	125				
								Dolly Varden	125				
								Dolly Varden	129				
								Dolly Varden	135				
								Dolly Varden	135				
								Dolly Varden	145				
								Dolly Varden	154				
								Sculpin	100	20	4	0	
Stream #2	8/21/05	15:40	8/25/2005	12:36pm	54.14571977	-165.60277104	MT-23	Sculpin	75	0	0	0	Trap was not completely submerged; set u/s RB
Surf Bay Trib													Width: 1m-2m, Depth: 0.4m; vegetation: aquatic veg
													Substrate: gravel: gradient: ~ 5%; Flow <1cfs;
													Banks are steep ~ 85% slope
Stream #2	8/21/05	15:50	8/25/2005	12:48	54.14515248	-165.60243216	MT-24	none		0	0	0	Width: 1.5m, Depth: 0.4m; banks vegetated w/ grasses/herbs
Surf Bay Trib													Note substrate change: gravel & cobbles; Gradient: 7-10%; Flow >1cfs
													Trap set at RB; in backwater of cutbank, high gradient area
													banks are ~10 m vertical
Stream #2	8/21/05	15:54	8/25/2005	12:59	54.14483122	-165.60229769	MT-25	Dolly Varden	114				Width: 1.5m; depth: 3-4m
Surf Bay Trib								Dolly Varden	146	2	0	0	Substrate: gravel; gradient: 7-10%; flow > 1cfs
													Trap set at RB looking up
													1 photo(#24) looking d/s; 1 photo (#23) look u/s
													steep banks, channel lies in steep area
Stream #2	8/21/05	15:59	8/25/2005	13:23	54.14443558	-165.60264791	MT-26	Dolly Varden	88				Trap set at RB looking up
Surf Bay Trib								Sculpin	75	1	0	0	Width: 0.5m, Depth 0.5m; Gradient: 2-4%; Flow > 1cfs
													Substrate: sand; vegetation: herb/grasses
													Channel climbs up to open meadow; levels w/flat banks into wet areas
Stream #2	8/21/05	16:07	8/25/2005	14:17	54.14403576	-165.60342022	MT-27	Coho	79				Trap partially out of water
Surf Bay Trib								Coho	88	0	2	0	Photo (#22) taken of coh #2 and looking upstream(#21)
													Width: 0.4m; Depth: 0.5m; flow <1cfs; substrate: silt/muck
													Vegetation: grasses, carex ssp., aquatic veg; gradient: 2-4%;
													Wetland area w/ mult drainages feeding main channel from all directions
Stream #2	8/21/05	16:00	8/25/2005	14:30	54.14395842	-165.60423266	MT-28	Coho	65				Trap set near high RB looking up, in deeper pool
Surf Bay Trib								Coho	71				Width: 2m, depth: 1m; flow <1cfs; Substrate: silt/muck
								Coho	97				Vegetation: grasses/shrubs/aquatic; gradient: 2-4%
								Dolly Varden	68				
								Dolly Varden	85				
								Dolly Varden	93	3	3	0	
Trib 2-3	8/25/05	14:05	8/25/2005	14:47	54.14434866	-165.60139683	MT-29	Dolly Varden	60				Depth: 0.15 - 0.2 m
								Dolly Varden	90				Substrate: sand
								Dolly Varden	96				Vegetation: abundant herbaceous veg
								Dolly Varden	96				
								Dolly Varden	115				
								Dolly Varden	124				
								Dolly Varden	129	7	0	0	
Trib 2-3	8/25/05	14:10	8/25/2005	14:57	54.14441360	-165.60030775	MT-30	Dolly Varden	116	1	0	0	Width: 3.5 m; Depth: 0.25 m; Substrate: sand; Veg: over hanging veg,
								Stream #2 MT total:		**96**	**13**	**0**	submerged due to bank full conditions; Trap set in large pool habitat

Water Quality Results - Akun Island, August 2005

Waterbody	Date	Location		Site ID#	Temperature (°C)	Conductivity (uS/cm³)	Conductivity (mS/cm)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	pH	Turbidity (NTU)	ORP
Stream #1	8/20/2005	54.150685	-165.612438	MT-1	13.98	124	0.097	69.5	7.26	7.26	7.23	87.2
Stream #2	8/21/2005	54.147058	-165.602874	MT-21	10.54	154	0.112	80.6	9.01	7.47	11.57	41.3
Stream #2	8/21/2005	54.146482	-165.602643	MT-22	10.78	153	0.112	83.1	9.21	7.46	4.67	40.8
Stream #2	8/21/2005	54.145720	-165.602771	MT-23	10.96	152	0.111	83	9.15	7.48		62.8
Stream #2	8/21/2005	54.145152	-165.602432	MT-24	11.22	151	0.112	82	8.99	7.32	3.28	56.4
Stream #2	8/21/2005	54.144831	-165.602298	MT-25	11.54	152	0.112	81.3	8.85	7.26	2.66	54
Stream #2	8/21/2005	54.144436	-165.602648	MT-26	11.97	152	0.114	80.5	8.66	7.13	2.75	40
Stream #2	8/21/2005	54.144036	-165.603420	MT-27	13.32	151	0.117	80.7	8.44	7.21	1.94	33.1
Stream #2	8/21/2005	54.143958	-165.604233	MT-28	13.77	151	0.118	80	8.29	7.25	3.67	34.8
Trib #2-3	8/25/2005	54.144349	-165.601397	MT-29	12.9	135	0.104	80.9	8.53	7.42	0.57	95.3
Stream #3	8/28/2005	54.147644	-165.592925	E-6	12.34	120-170	0.09-0.116	80.6	8.51	7.19	3.72	181.1

Summary of Water Quality Data

Stream #1							
Temperature (°C)	**Conductivity (uS/cm³)**	**Conductivity (mS/cm)**	**Dissolved Oxygen (%)**	**Dissolved Oxygen (mg/L)**	**pH**	**Turbidity (NTU)**	**ORP**
13.98	124	0.097	69.5	7.26	7.26	7.23	87.2
Stream #2 Drainage							
Temperature (°C)	**Conductivity (uS/cm³)**	**Conductivity (mS/cm)**	**Dissolved Oxygen (%)**	**Dissolved Oxygen (mg/L)**	**pH**	**Turbidity (NTU)**	**ORP**
10.54 - 13.77	135-154	0.111-0.118	80-83.1	8.29-9.21	7.13-7.48	0.57-11.57	33.1-95.3

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Memo

To: Tammy Davis (tammy_davis@fishgame.state.sk.us)
Alaska Department of Fish and Game, Division of Sport Fish HQ
P.O. Box 25526, Juneau, AK 99802-5526

From: Erin Cunningham (erin.cunningham@hdrinc.com)
HDR Alaska, Inc
2525 C Street, Suite 305
Anchorage, AK 99501

Project: Akutan Airport Master Plan Phase V
(Akun Island 2005 Fisheries Study)

CC: Len Schwarz (len_schwarz@fishgame.state.ak.us)
Alaska Department of Fish and Game, Sport Fish Division Area Management Biologist; Kodiak
Paul McLarnon (pmclarno@hdrinc.com)
HDR Alaska Inc, Fish and Aquatic Resource Project Manager; Anchorage

Date: 31 January 2006

Job No: 3940-19

RE: Fisheries Data Submittal per Fish Resource Permit SF-2005-104 (expiration date: 12/31/2005)

This memo presents the field data collected from the southwest portion of Akun Island during the August 2005 fisheries study. The purpose of this study was to characterize waterbodies and identify anadromous and resident fish distributions in the proposed Akun Island Airport study area (Figure 1). Data was collected from eight streams (and associated tributaries), two lakes, and one pond in the study area on 20, 21, 25, and 28 August 2005. Field methods included direct observation, minnow trapping (¼-inch mesh), and electrofishing (Smith-Root Model LR-24).

Seven fish species were identified during the surveys, including sockeye (*Oncorhynchus nerka)*, pink (*O. gorbuscha*), and coho salmon (*O. kisutch*), Dolly Varden (*Salvalineus malma*), Sculpin (not keyed to genus), three-spine stickleback (*Gasterosteus aculeatus*), and a left-eyed starry flounder (*Platichythys stellatus*), as summarized in Table 1. GPS coordinates (NAD83 Alaska State Plane 10) for the sample sites are provided within the data spreadsheets that follow, and sample sites are shown on Figure 1. Fish captured were returned live to the stream, with the exception of one juvenile coho salmon.

Table 1. Summary of Fish Presence

Waterbody Name	Fish Presence
Stream #1	Juvenile coho salmon; Dolly Varden; Starry flounder; three-spine stickleback; adult sockeye salmon [1]; adult pink salmon; Sculpin
Stream #2	Juvenile coho salmon; juvenile Dolly Varden
Stream #3	Juvenile coho salmon; juvenile Dolly Varden
Stream #4	No fish observed
Stream #5	No fish observed
Stream #7	No fish observed; *visual survey only
Stream #8	No fish observed; *visual survey only
Stream #9	No fish observed; *visual survey only
Lake #1	Juvenile coho salmon; juvenile Dolly Varden; three-spine stickleback; Sculpin
Pond #1	No fish observed
Lake #2	No fish observed

[1]Adult sockeye salmon was observed in the lower reaches just upstream from the mouth. No other sockeye salmon were observed.

JD Johnson

To: Cunningham, Erin E.

Subject: RE: Akun Island Field Data

Erin
The attached pdf consists on a nomination form, map, and data form I created that summarizes coho salmon catch info.
Nomination would add 2 new streams and lake to FDD w/coho salmon rearing in all and pink salmon presence.
Look the packet over and sign if all looks OK to you. I'm holding off adding Dolly Varden until I can confirm anadromous fish use by area staff.
Also, could you mark on map the upper extent of the pink salmon observations. Return the nom form and map via mail at your earliest convenince.
Give me a call if you have any ??????
thx

J. Johnson
Alaska Department of Fish and Game
FDD Project Biologist
333 Raspberry Rd
Anchorage, AK 99518
907-267-2337 office
907-267-2464 FAX
j_johnson@fishgame.state.ak.us

-----Original Message-----
From: Cunningham, Erin E. [mailto:Erin.Cunningham@hdrinc.com]
Sent: Tuesday, May 16, 2006 9:08 AM
To: j_johnson@fishgame.state.ak.us
Subject: RE: Akun Island Field Data

groovy - thanks j.

From: JD Johnson [mailto:j_johnson@fishgame.state.ak.us]
Sent: Tuesday, May 16, 2006 9:02 AM
To: Cunningham, Erin E.
Subject: RE: Akun Island Field Data

Erin
I'll put the nom forms together and get them to you
NBD

J. Johnson
Alaska Department of Fish and Game
FDD Project Biologist
333 Raspberry Rd
Anchorage, AK 99518
907-267-2337 office
907-267-2464 FAX
j_johnson@fishgame.state.ak.us

-----Original Message-----
From: Cunningham, Erin E. [mailto:Erin.Cunningham@hdrinc.com]
Sent: Tuesday, May 16, 2006 9:01 AM

Complex
Lake
Ps
DV
DV
BERM
South
STREAM
END CO_P
DV
PS
CO
NORTH
STREAM
(10300)
ADD SPECIES
CO_P TO
302-16-10300

JD Johnson tammy data

From: Tammy J. Davis [tammy_davis@fishgame.state.ak.us]
Sent: Tuesday, January 31, 2006 2:39 PM
To: j_johnson@fishgame.state.ak.us
Subject: Report for SF2005-104

-----Original Message-----
From: Pearson, Kate L. [mailto:Kate.Pearson@hdrinc.com]
Sent: Tuesday, January 31, 2006 1:22 PM
To: tammy_davis@fishgame.state.ak.us
Cc: len_schwarz@fishgame.state.ak.us
Subject: Akun Island 2005 Fisheries Study

Hello-

Attached you will find a Fisheries Data Submittal per Fish Resource Permit SF-2005-104. If you have any questions or comments please contact Erin Cunningham at HDR, by e-mail at erin.cunningham@hdrinc.com or by phone at 907-644-2115.

Thank you for your help.
Kate

Table 1. Summary of Fish Presence and Habitat Types

Waterbody Name	Fish Presence	Habitat Notes
Stream #1 (Surf Bay Creek)	Juvenile coho salmon Dolly Varden Starry flounder Three-spine stickleback Adult sockeye salmon [1] Adult pink salmon Sculpin	• Channel is 2.5 meters to 20 meters wide and 0.2 m to 1.3 m deep • Low gradient, riffle and pool-dominated stream • Incised channel, undercut banks, aquatic vegetation • Unstable banks in places due to sand dunes • Large woody debris located in the lower reach near the beach • Sand-dominated substrate; gravels and cobbles in lower reach near beach
Stream #2	Juvenile coho salmon Juvenile Dolly Varden	• Channel is 0.5 m to 2.0 m wide and 0.3 m to 1.0 m deep • Lower reaches: low gradient, deeply incised, over bank-full capacity, aquatic vegetation, sand-dominated substrate • Upstream reaches: medium to high gradient, deeply incised, narrow, sand and cobble substrate; unstable banks common in steeper areas • Wetland complexes common between upstream reaches; fish observed
Stream #3	Juvenile coho salmon Juvenile Dolly Varden	• Channel is 2.0 to 3.0 m wide and 0.5 to 1.0 m deep • Low gradient, incised channel; flooded over bank-full capacity • Sand-dominated substrate, abundant aquatic vegetation • Upper reaches not surveyed
Stream #4	No fish observed	• Channel is 0.5 m wide up to 0.5 m deep • Low gradient, incised channel; flooded over bank-full capacity • Sand-dominated substrate, abundant aquatic vegetation
Stream #5	No fish observed	• Channel is 0.5 m wide; shallow depth • Sand-dominated substrate
Stream #7	No fish observed *visual survey only	• Channel is 0.2 m wide and less than 0.1 m deep • Small, high gradient riffle-dominated stream until reaching the beach • Considered too steep for spawning or rearing habitat
Stream #8	No fish observed *visual survey only	• Channel is 0.25 m to 0.75 m • Deeply incised, steep gradient, riffle-dominated stream until reaching the beach; low gradient habitat on beach; log jam present • Fish presence is possible in this stream, especially in lower portion
Stream #9	No fish observed *visual survey only	• Channel is 0.25 m to 0.75 m • Deeply incised, steep gradient, riffle-dominated stream until reaching the beach; low gradient habitat on beach • Fish presence is possible in this stream; especially in lower portion
Lake #1 (Surf Bay Lake)	Juvenile coho salmon Juvenile Dolly Varden Three-spine stickleback Sculpin	• Approximately 55 acres • Shallow, approximately 0.9 m in depth • Fine, sand substrate dominates this lake; some cobbles exist along southern border near location of MT-18 • Vegetated
Pond #1	No fish observed	• Approximately 0.3 acres • Shallow; fine sands and silts with some vegetation near stream outlet
Lake #2	No fish observed	• Approximately 11 acres • Sand, silts, and soft organic layer dominate substrate

[1] Adult sockeye salmon was observed in the lower reaches of the stream a short distance upstream from the ocean. No other sockeye salmon were observed in the drainage.

Stream #1. Due to the high number of three-spine sticklebacks, fork lengths were not measured. Instead, the fish were grouped into size ranges from 0 to 40 mm, 40 to 60 mm, or 60 to 80 mm. Twenty four sticklebacks were between 0 and 40 mm in length, 263 were between 40 and 60 mm, and 20 fish were between 60 and 80 mm. Chart 1 shows the relative abundance of coho salmon and Dolly Varden captured from Stream #1.

Additionally, approximately 20 adult pink salmon were observed in Stream #1. Most adult pink salmon were observed in pool habitat, but some were observed elsewhere within the stream. Additionally, one adult Sockeye salmon was observed approximately 15 meters upstream of the mouth (Figure 1).

Akun Island Airport Fisheries Field Report

Akun Island Fisheries Study Sample Sites

LEGEND

- Electrofish Locations
- Minnow Trap Locations
- Observation Points-No Fish
- Observation Points-Fish
- study area boundary

DATE: December 2005

DATA SOURCE: USGS, ADOT&PF, HDR

MAP NOTES:

0 200 400 600
Feet

0 50 100 150 200
Meters

PREPARED FOR:

FIGURE

1

1.0 INTRODUCTION

1.1 Project Background

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in cooperation with the Federal Aviation Administration (FAA) are proposing to construct a land-based airport on Akun Island, Alaska. The proposed airport location is approximately 6 nautical miles east of the village of Akutan. This report presents the findings of the fisheries study and is based on data collected during the August 2005 field effort.

1.2 Study Purpose

The purpose of this study is to characterize waterbodies and identify anadromous fish streams in the proposed Akun Island Airport study area (Figure 1).

1.3 Study Area

The proposed location for the Akun Island Airport is situated within the southwestern portion of Akun Island. The footprint associated with the proposed runway alignment (including "cleared air space" and access road) would encompass approximately 23 acres. Because the exact runway alignment was not determined at the time of this study, the study area boundary was expanded to encompass an 800 acre area, as shown in Figure 1.

Nine streams, three lakes, and two stream-connected ponds are located in the study area. Prominent waterbodies within this area were visited and fish presence and habitat observations were documented. Discrete sample sites were chosen based on proximity to the preliminary proposed runway alignment. The study area waterbodies and sample sites are shown in Figure 1.

2.0 METHODS

2.1 Review of Existing Information

The Alaska Department of Fish and Game (ADF&G) Anadromous Fish Catalog does not report any anadromous waterbodies on Akun Island (http://gis.sf.adfg.state.ak.us/AWC_IMS/viewer.htm, as viewed on 20 April 2005). No known anadromous fish studies have been conducted on Akun Island. However, local knowledge indicates at least one of the streams (Stream #1; Figure 1) provides habitat for sockeye salmon (*Oncorhynchus nerka)*, pink salmon (*O. gorbuscha*), and coho salmon (*O. kisutch*).

Satellite imagery and topographic data were reviewed to identify which waterbodies (or sections of waterbodies) in the vicinity of the project area are likely to contain resident or anadromous fishes.

2.2 Field Methods

Field methods used to identify fish use in the study area and document general species distribution and relative abundance in both palustrine (stream) and lacustrine (lake) habitats included direct observation (visual surveys), minnow trapping, and electrofishing methods. Study methods were reviewed by ADF&G and a resource permit (SF-2005-104) was issued by ADF&G prior to conducting fieldwork. The sampling plan, permit application, and permit are provided in Appendix A.

Minnow trap surveys were conducted by setting ¼-inch mesh minnow traps baited with cured salmon eggs. Minnow traps were set in various habitats including pools, undercut banks, and other appropriate habitats within project area streams and lakes. Traps were fished for up to 24 hours in most cases. Inclement weather influenced access to Akun Island and as a result, several traps were fished for up to

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Anadromous Fish Stream Survey
DRAFT FIELD REPORT

Prepared for:
State of Alaska
Department of Transportation
and Public Facilities
P.O. Box 196900
Anchorage, AK 99519-6900

Prepared by:

HDR Alaska, Inc.
2525 C Street, Suite 305
Anchorage, AK 99503

December 2005

Chart 1: Relative Abundance of Coho Salmon & Dolly Varden. Stream #1 - Akun Island, August 2005.
(based on fish captured; n=45).

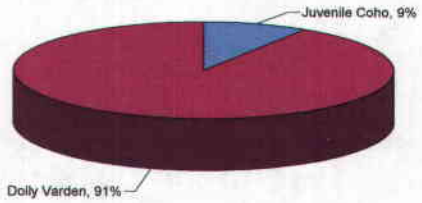
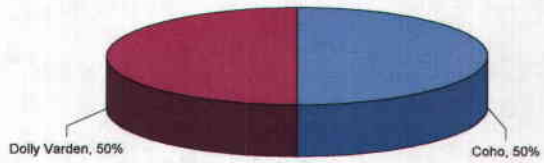


Chart 2: Relative Abundance of Coho Salmon & Dolly Varden. Lake #1 - Akun Island, August 2005.
(based on fish captured; n=18).



3.2 Lake #1 (Surf Bay Lake)

The surface area of Surf Bay Lake is approximately 55 acres. The lake bottom consists mainly of silts and sands. Cobbles were observed in some areas along its southeast bank. Surf Bay Lake is relatively shallow, with the deepest point measured to be approximately 0.9 m at the minnow trap location toward the lake's center (MT-13, Figure 1). The lake is fed primarily by Stream #2 to the south and Stream #3 to the east, and drained by Stream #1 to the west.

Six minnow traps (MT-13 through MT-18) were set for approximately 24 hours within Surf Bay Lake (Figure 1). A total of 9 juvenile Dolly Varden, 9 juvenile coho salmon, 109 three-spine sticklebacks, and 5 Sculpin were captured. The fork lengths measured from captured fish ranged from between 59 and 81 mm and 46 and 138 mm for coho salmon and Dolly Varden, respectively. One stickleback was between 0 and 40 mm in length, 93 fish were between 40 and 60 mm, and 14 were between 60 and 80 mm. Chart 2 shows the relative abundance of coho salmon and Dolly Varden in Lake #1.

3.3 Stream #2 (and Associated Tributaries and Ponds)

Stream #2 drains into Lake #1 from the south. The channel varies from approximately 0.5 m to 2.0 m wide and 0.3 m to 1.0 m deep, with a gradient of 2 to 5 percent and flow of less than 1 cfs. The lower portion of Stream #2 (near the lake) consists of a deeply incised, low gradient channel with sand-dominated substrate. The channel was flooded over bank-full capacity during the survey, as evidenced by the submerged aquatic vegetation (Appendix C). Upstream of the lake, Stream #2 consists of a medium to high gradient, narrow, deeply incised, channel; sand and small cobbles dominate the substrate. Numerous tributaries that feed Stream #2 were included in the survey (Figure 1).

Twelve minnow traps (MT-19 through MT-28) were set in the Stream #2 drainage, from its mouth at Surf Bay Lake, upstream (south) near its headwaters. Traps were fished for between 45 minutes and 72 hours. One fish mortality occurred, presumably due to the extended time period. All other fish were returned to the stream alive. Select areas upstream of trap sites on the main channel of Stream #2 and three tributaries were additionally surveyed using the backpack electrofisher (Figure 1).

A total of 16 juvenile coho salmon ranging in size from 56 to 114 mm and 130 Dolly Varden ranging in size from 42 to 210 mm were captured from the Stream #2 drainage during minnow trapping and electrofishing surveys. Chart 3 shows the relative abundance of coho salmon and Dolly Varden in the Stream #2 drainage.

suggests a fish passage barrier may be present near the point at which Stream #4 empties into Akun Strait. A full reconnaissance of this stream was not possible due to inclement weather.

Stream #5 is approximately 0.5 m wide and drains into Lake #2 from the northeast. Minnow trapping and electrofishing surveys were not conducted in Stream #5. However, a small cascade near the mouth in Lake #2 may act as a fish passage barrier. Stream #5 is not expected to be occupied by fish.

Lake #3 is located approximately 300 m northwest of Lake #2. Lake #3 covers a surface area of approximately 8 acres. The lake is drained into the southern portion of Surf Bay by Stream #6 to the north. The stream and lake were not visited during the August 2005 field effort due to inclement weather and a resulting lack of time. However, review of satellite imagery and topographic maps suggests a fish passage barrier may be present near the point at which Stream #6 empties into Surf Bay.

3.6 Streams #7, #8, and #9

Stream #7 was visually inspected on August 25. Stream #7 is a small, high gradient riffle-dominated stream that cascades into the bay across a bull kelp covered cobble beach. Stream #7 is considered impassable to fish due to its steepness and tidal disconnection to Surf Bay.

Streams #8 and #9, which flow into Surf Bay from the east-southeast, were visually inspected on August 28. Both are small, high gradient riffle-dominated streams that flow across sandy beaches into Surf Bay. They are both fairly deeply incised until reaching the beach, where both streams are approximately 0.25 to 0.5 m wide. Drift wood and other debris are built up within both stream channels approximately 10 to 15 m upstream of the mouths.

No fish were visually observed in either of these streams. Given the steep nature of the terrain just upstream of the mouths, the likelihood that either stream supports a fish population is thought to be low. Water quality data was not recorded from either stream. Photographs of Stream #7 and Stream #9 are included in Appendix C.

4.0 DISCUSSION AND CONCLUSIONS

Eight streams, one lake, and one pond were examined in an effort to determine the presence of anadromous fish species and habitat in the proposed Akun Airport and hovercraft landing area (findings are summarized in Table 1). Three streams (Stream #1, #2, and #3) and one lake (Lake #1) in the Surf Bay drainage were found to support anadromous fish populations. Although other anadromous fish species such as chum salmon are common in the Aleutian region, pink, sockeye, and coho salmon and Dolly Varden were the anadromous species identified during this survey. Of the anadromous fish observed during this survey, pink salmon was the most abundant adult and Dolly Varden was the most abundant juvenile.

Approximately 20 adult pink salmon and one sockeye salmon were observed in Stream #1. The adult sockeye salmon (female) was observed in the lower reaches of Stream #1 while the pink salmon were observed further upstream, closer to Lake #1. In general, sockeye salmon return to their natal streams in mid-summer. It is possible the peak run of sockeye salmon would have already occurred by the time this survey was conducted and perhaps more adult sockeye salmon would be observed in late July and early August. No juvenile sockeye or pink salmon were captured during the survey. Pink salmon fry generally emerge in late winter and out migrate in the spring (Heard 1991) so their presence at the time of this survey was not expected.

Authorized Personnel: The following persons may perform collecting activities under terms of this permit:
Erin Cunningham, Patsy Garcis, Paul McLarnon, Rebecca Moore, Kate Pearson, Isaac Watkins
Employees and volunteers under the direct supervision of, and in the presence of, one of the authorized personnel listed above may participate in collecting activities under terms of this permit.

Permit Stipulations:

1) **Len Schwarz** (486-1880, len_schwarz@fishgame.state.ak.us) Kodiak, Sport Fish Division Area Management Biologist, must be notified within a few days **prior** to engaging in collecting activities within their management areas. These biologists have the right to specify methods for collecting, as well as limiting the collections of any species, and the number of specimens collected by time and area.
2) Electroshocking is currently discouraged, but not prohibited by the department. Electroshockers **may not** be used in waters used by anadromous fish. Backpack electroshockers may not be used in the presence of spawning salmonids, adult trout or adult char. Operators of electroshocking equipment should have formal training.
3) Salmon eggs used as bait in traps must be disinfected prior to use. A 10 minute soak in 1/100 Betadyne solution or some other iodophor disinfectant is adequate.
4) All unattended collecting gear must be labeled with the permittee's name, telephone number, and permit number and all fish collecting traps must be accounted for and removed from the water at the conclusion of sampling.
5) No fish may be transported from the water body where they were captured without a valid Fish Transport Permit (FTP) obtained from the Alaska Department of Fish and Game.
6) *A copy of this permit, including any amendments, must be made available at all field collection sites and project sites for inspection upon request by a representative of the department or a law enforcement officer.*
7) Issuance of this permit does not absolve the permittee from compliance in full with any and all other applicable federal, state, or local laws, regulations, or ordinances.
8) A **report of collecting activities**, referenced to this fish resource permit number, must be submitted to the Alaska Department of Fish and Game, Division of Sport Fish HQ, P.O. Box 25526, Juneau, AK 99802-5526, Attention: Tammy Davis (465-6183; tammy_davis@fishgame.state.ak.us), within 30 days after the expiration of this permit. This report must summarize the number of fish captured by date, by location (provide GPS coordinates and datum or a map), and by species, and the fate of those fish. Fish length, weight, sex, and age data should be included if collected. A report is required whether or not collecting activities were undertaken. A report should also be sent to the Biologist(s) listed under stipulation 1 in the Permit Stipulations section.

PERMIT VALIDATION requires permittee's signature agreeing to abide by permit conditions before beginning collecting activities:

erin cunningham
Signature of Permittee

cc: Len Schwarz, Division of Sport Fish, Kodiak
Steve Honnold, Division of Commercial Fisheries, Kodiak
Stewart Seaberg, ADNR, Office of Habitat Management and Permitting, Anchorage
Fish and Wildlife Protection, Anchorage

I wish to obtain the above fish [finfish, shellfish, amphibians] by means of:

Primarily by means of Minnow Trapping, Backpack Electroshocker, Beach Seining.

(Specify gear type(s): minnow traps, hoop traps, fyke nets, gillnets, dip nets, spat collectors, etc.)

from the following location(s):

Akun Island, see attached map.

(Specify location(s), i.e., X River at latitude/longitude, or ESE of Pt. Barrow, or on Kodiak Island, etc.)

method. All fishes captured in this study will be identified, counted, and measured to fork length before being returned live to the stream.

Stream channel characteristics, including habitat features of known or probable spawning areas, such as channel type (i.e., Rosgen), length, width, depth, substrate composition, gradient, and flow, will be recorded for each sampling site. Additionally, water quality field parameters including temperature, pH, conductivity, and salinity will be recorded from each site to provide basic environmental conditions in the study area. Global positioning system (GPS) locations will be recorded, and photographs will be taken at each sampling station.

Although sampling will occur at all streams and lakes within the project area, sampling intensity may vary between sites. Variance will depend on the proximity to the project and the logical potential for impact. The two streams draining into Surf Bay from an unnamed lake may provide good anadromous fish habitat in the study area. These water systems are located relatively near a proposed hovercraft access area, so will likely be sampled more intensively. As discussed above, discrete sampling sites will be selected after the preliminary survey has been completed.

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Lake #1 Surf Bay Lake	8/20/05	N/A	8/21/2005	1:27pm	54.14896405	-165.60311529	MT-13	Dolly Varden	124				
								Dolly Varden	138	2	0	74	
Lake #1 Surf Bay Lake	8/20/05	N/A	8/21/2005	1:27pm	54.14853514	-165.60336104	MT-14	3-spine stickleback	50				
								3-spine stickleback	51				
								3-spine stickleback	51				
								Coho	75				
								Coho	78				
								Dolly Varden	65	1	2	3	
Lake #1 Surf Bay Lake	8/20/05	N/A	8/21/2005	1:27pm	54.14817700	-165.60371697	MT-15	3-spine stickleback	0-40				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
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								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								Dolly Varden	46	1	0	28	
Lake #1 Surf Bay Lake	8/20/05	N/A	8/21/2005	1:40pm	54.14790363	-165.60219389	MT-16	Coho	59				
								Dolly Varden	65				
								Dolly Varden	75				
								Dolly Varden	110				
								Sculpin	100				
								Sculpin	100				
								Sculpin	110				
								Sculpin	110	3	1	0	
Lake #1 Surf Bay Lake	8/20/05	N/A	8/21/2005	1:50pm	54.14802820	-165.60107582	MT-17	Sculpin	100	0	0	0	Trap set ~ 10-15m off shore in pond
Lake #1 Surf Bay Lake	8/20/05	N/A	8/21/2005	1:57pm	54.14761890	-165.59902354	MT-18	3-spine stickleback	62				
								3-spine stickleback	63				
								3-spine stickleback	65				
Lake #1 Surf Bay Lake	8/20/05	N/A	8/21/2005	1:57pm	54.14761890	-165.59902354	MT-18	3-spine stickleback	69				
								Coho	63				
								Coho	72				
								Coho	74				
								Coho	75				
								Coho	79				
								Coho	81				
								Dolly Varden	74				
								Dolly Varden	88				
								Sculpin	100+	2	6	4	
									Lake #1 MT total:	9	9	109	

Waterbody	Set Date	Set Time	Pick Date	Pick Time	Location		Trap Site #	Fish Species	Size (mm)	DV Totals	Coho Totals	3-Spine T	Comments
Stream #2 Surf Bay Trib	8/20/05	N/A	8/21/2005	2:15pm	54.14766811	-165.60232548	MT-19	Dolly Varden	85				
								Dolly Varden	100				
								Dolly Varden	108				
								Dolly Varden	114				
								Dolly Varden	115				
								Dolly Varden	123				
								Dolly Varden	125				
								Dolly Varden	145				

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Stream #1	08/20/05	N/A	8/21/2005	11:15am	54.14972087	-165.60777135	MT-7	3-spine stickleback	57				
Surf Bay Creek								3-spine stickleback	57				
								3-spine stickleback	58				
								3-spine stickleback	58				
								3-spine stickleback	59				
								3-spine stickleback	59				
								3-spine stickleback	62				
								3-spine stickleback	67				
								Coho	72				
								Sculpin (spp)	104	0	1	49	
Stream #1	08/20/05	N/A	8/21/2005	1:00pm	54.14942651	-165.60756900	MT-8	3-spine stickleback	40-60				Set at LB center
Surf Bay Creek								3-spine stickleback	40-60				Photo #15 looking downstream at trib
								3-spine stickleback	40-60				Width: > 20m; depth: 1+m in pools; substrate: sand/silt; gradient: 1-2%
								3-spine stickleback	40-60				vegetation: grasses, sedges, wetland plants, flow < 1cfs
								3-spine stickleback	40-60				Photo #14 looking up at pond complex
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	60+	0	0	10	
Stream #1	08/20/05	N/A	8/21/2005	12:05pm	54.14942566	-165.60726651	MT-9	3-spine stickleback	53				Channel widens into wetland complex w/ little flow. Banks 0-85 degrees
Surf Bay Creek								Dolly Varden	80				1 adult pink salmon and multiple juveniles (unsp) observed
								Dolly Varden	81	2	0	1	Complex joins with small trib on RB with steep gradient and flow
Stream #1	08/20/05	N/A	8/21/2005	N/A	54.14950068	-165.60711907	MT-10	3-spine stickleback	33				Trap set at LB of complex within aquatic vegetation~ 0.3m deep
Surf Bay Creek								3-spine stickleback	40				Photo taken with digital camera
								3-spine stickleback	42				Upper pond complex opens into the wetted area; lake just upstream.
								3-spine stickleback	43				
								3-spine stickleback	43				
								3-spine stickleback	43				
								3-spine stickleback	44				
								3-spine stickleback	44				
								3-spine stickleback	44				
								3-spine stickleback	45				
								3-spine stickleback	45				
								3-spine stickleback	45				
								3-spine stickleback	46				
								3-spine stickleback	46				
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								3-spine stickleback	50				
								3-spine stickleback	50				
								3-spine stickleback	50				
								3-spine stickleback	50				
								3-spine stickleback	50				
								3-spine stickleback	50				
								3-spine stickleback	51				

Minnow Trapping Results - Akun Island, August 2005

Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ıe stickleb	Comments
Stream #1	08/20/05	N/A	8/21/2005	12:25	54.14947374	-165.60604764	MT-11	3-spine stickleback	40-60				
Surf Bay Creek								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
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								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								3-spine stickleback	60+				
								Dolly Varden	60				
								Dolly Varden	91	2	0	92	
Stream #1	08/20/05	N/A	8/21/2005	12:30pm	54.14931159	-165.60584058	MT-12	3-spine stickleback	40-60				Trap set on LB of the complex at the edge of reed grass
Surf Bay Creek								3-spine stickleback	40-60				Depth: 0.5m; substrate: sand/silt; flow less than 1cfs
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				
								3-spine stickleback	40-60				

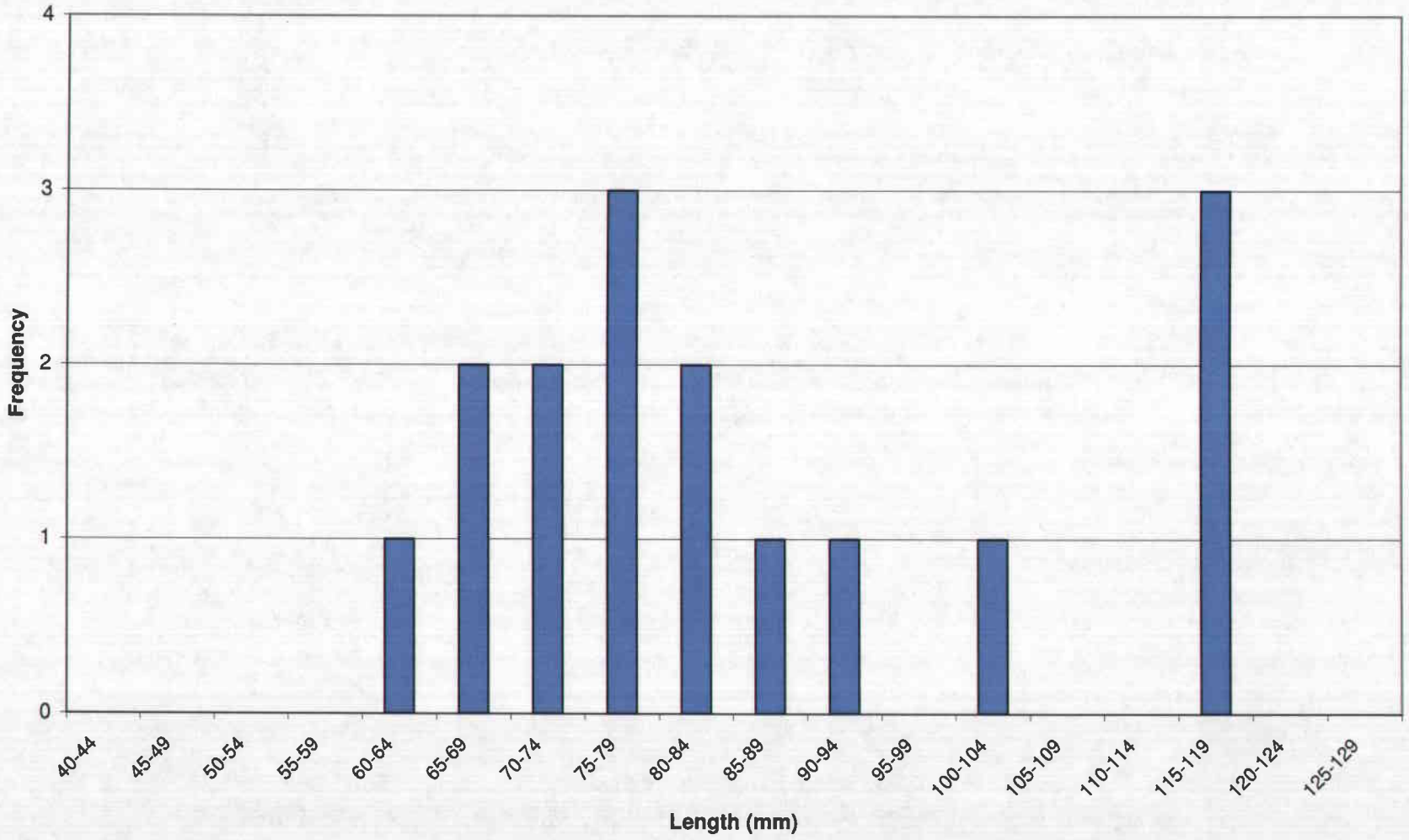
Minnow Trapping Results - Akun Island, August 2005

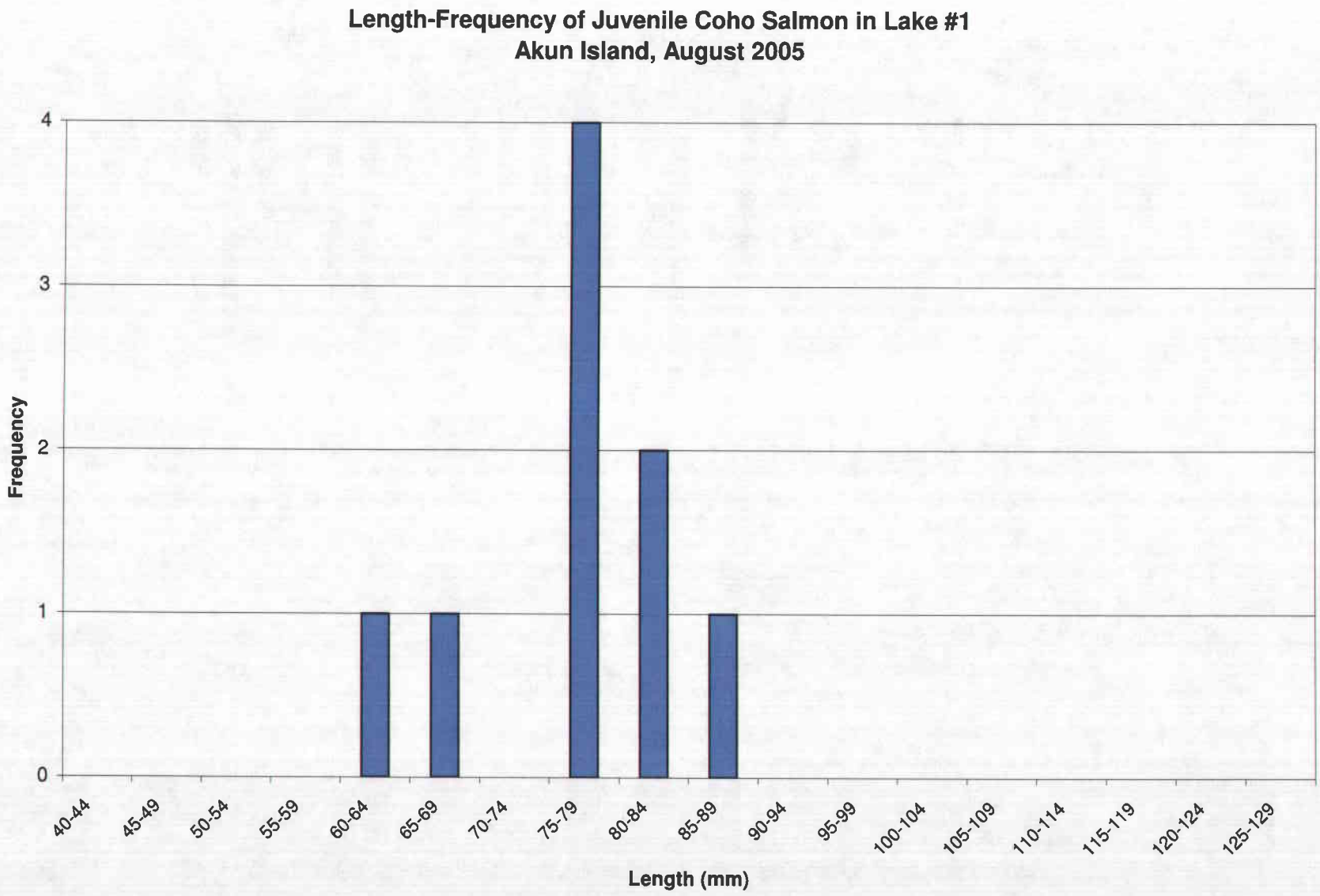
Waterbody	Set Date	S-Time	Pick Date	P-Time	Location		Site #	Species	Size (mm)	DV T	Coho T	ie stickleb	Comments
Stream #2	8/20/05	N/A	8/21/2005	2:15pm	54.14766811	-165.60232548	MT-19	Dolly Varden	151				
Surf Bay Trib								Dolly Varden	163	10	0	0	
Stream #2					54.14738593	-165.60245354	MT-20	Coho	66				
Surf Bay Trib								Coho	69				
								Coho	114				
								Dolly Varden	75				
								Dolly Varden	75				
								Dolly Varden	77				
								Dolly Varden	78				
								Dolly Varden	83				
								Dolly Varden	85				
								Dolly Varden	88				
								Dolly Varden	94				
								Dolly Varden	94				
								Dolly Varden	101				
								Dolly Varden	102				
								Dolly Varden	104				
								Dolly Varden	109				
								Dolly Varden	115				
								Dolly Varden	120				
								Dolly Varden	120				
								Dolly Varden	124				
								Dolly Varden	124				
								Dolly Varden	130				
								Dolly Varden	135				
								Dolly Varden	145				
								Dolly Varden	149				
								Dolly Varden	161				
								Sculpin	100				
								Sculpin	100	23	3	0	
Stream #2	8/21/05	15:18	8/25/2005	11:54am	54.14705769	-165.60287423	MT-21	Coho	114				Trap set at RB
Surf Bay Trib								Dolly Varden	80				Substrate: sand w/small gravel and cobble
								Dolly Varden	87				Vegetation: herbaceous (grasses & aquatic veg)
								Dolly Varden	92				Flow: < 1cfs; gradient: ~2-4%
								Dolly Varden	95				
								Dolly Varden	96				
								Dolly Varden	100				
								Dolly Varden	100				
								Dolly Varden	102				
								Dolly Varden	103				
								Dolly Varden	104				
								Dolly Varden	104				
								Dolly Varden	109				
								Dolly Varden	109				
								Dolly Varden	110				
								Dolly Varden	111				
								Dolly Varden	115				
								Dolly Varden	122				
								Dolly Varden	124				
								Dolly Varden	125				
								Dolly Varden	129				
								Dolly Varden	130				
								Dolly Varden	132				
								Dolly Varden	136				
								Dolly Varden	138				
								Dolly Varden	139				
								Dolly Varden	140				
								Dolly Varden	163				
								Dolly Varden	165				
								Dolly Varden	189				
								Sculpin	100	29	1	0	
Stream #2	8/21/05	15:30	8/25/2005	12:14pm	54.14648183	-165.60264299	MT-22	Coho	62				Trap set at LB
Surf Bay Trib								Coho	73				Photo #6 taken looking north from trap #22
								Coho	82				Depth: 0.5m, width: 0.5m; Gradient: ~2-4%; flow <1cfs
								Coho	113				Substrate: gravels and small cobbles
								Dolly Varden	75				
								Dolly Varden	86				
								Dolly Varden	86				
								Dolly Varden	89				
								Dolly Varden	89				
								Dolly Varden	98				

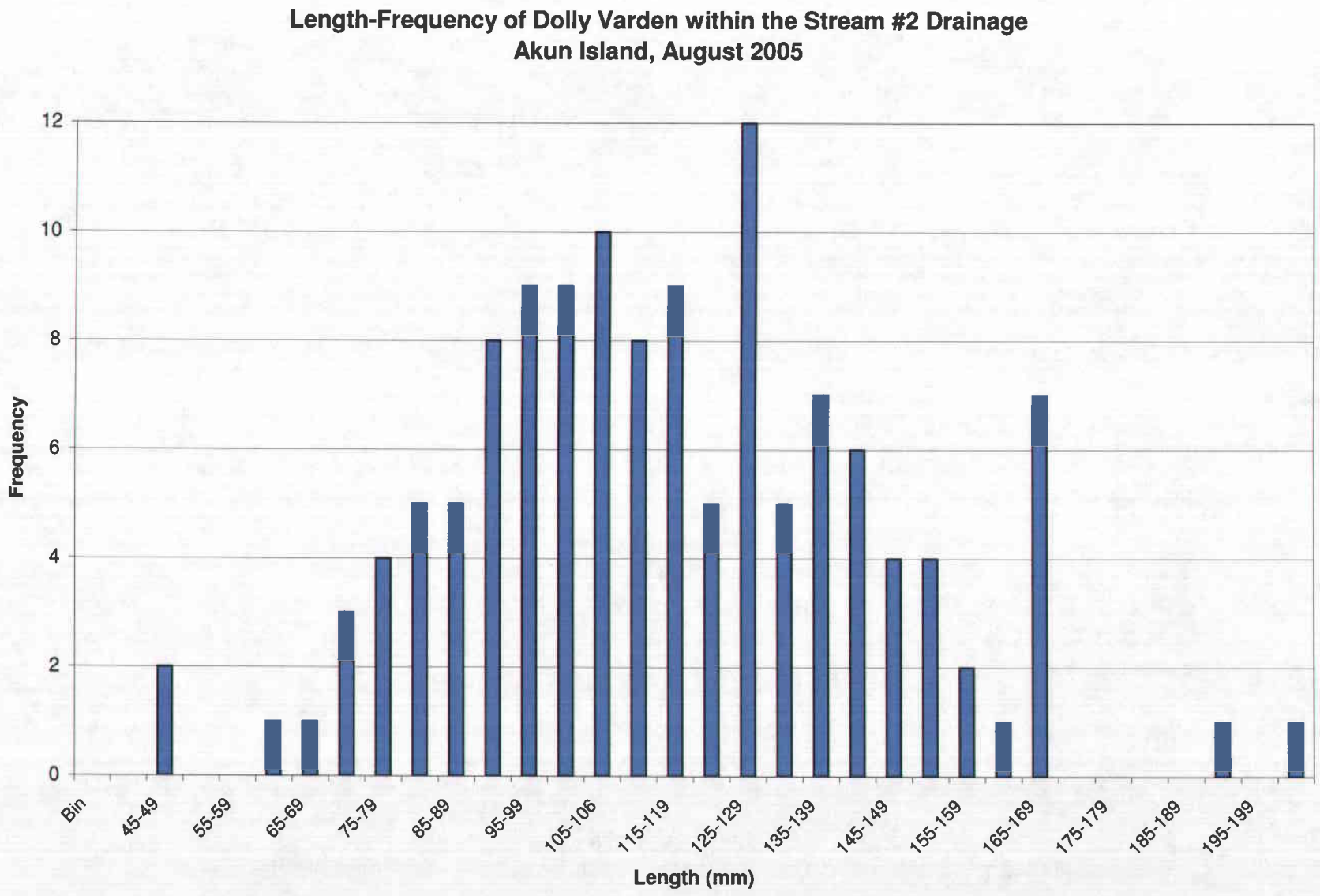
Stream 3: mouth of Stream 3; Lake 1 visible.

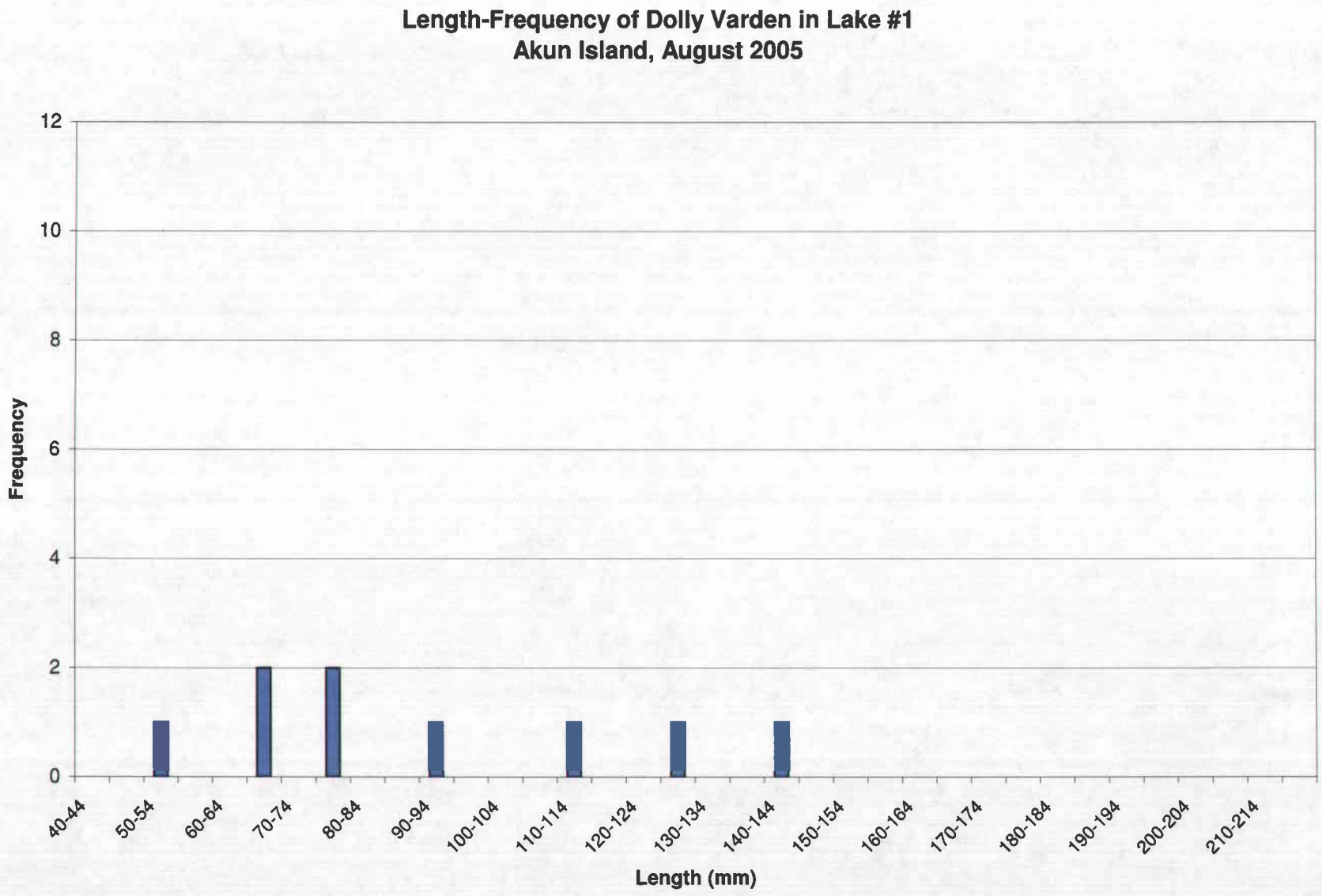
Stream 3: flow exceeds bank-full width; site E-5, looking upstream.

Length-Frequency of Juvenile Coho Salmon within the Stream #2 Drainage
Akun Island, August 2005




Length-Frequency of Juvenile Coho Salmon in Lake #1
Akun Island, August 2005
Frequency
0
1
2
3
4
40-44
45-49
50-54
55-59
60-64
65-69
70-74
75-79
80-84
85-89
90-94
95-99
100-104
105-109
110-114
115-119
120-124
125-129
Length (mm)


Length-Frequency of Dolly Varden within the Stream #2 Drainage
Akun Island, August 2005
Frequency
0
2
4
6
8
10
12
Bin
45-49
55-59
65-69
75-79
85-89
95-99
105-106
115-119
125-129
135-139
145-149
155-159
165-169
175-179
185-189
195-199
Length (mm)


Length-Frequency of Dolly Varden in Lake #1
Akun Island, August 2005
Frequency
0
2
4
6
8
10
12
40-44
50-54
60-64
70-74
80-84
90-94
100-104
110-114
120-124
130-134
140-144
150-154
160-164
170-174
180-184
190-194
200-204
210-214
Length (mm)

LOCATION	N2	DATE	N4	N5	N6	lat	long	SPECIES
Stream #1	Surf Bay Creek	8/20/2005	N/A	8/21/2005	11:15am	**54.15058**	-165.60579	coho
Stream #1	Surf Bay Creek	8/20/2005	N/A	8/21/2005	N/A	**54.15036**	-165.60514	coho
Stream #1	Surf Bay Creek	8/20/2005	N/A	8/21/2005	12:30pm	**54.15018**	-165.60386	2 coho
Lake #1	Surf Bay Lake	8/20/2005	N/A	8/21/2005	1:27pm	**54.14940**	-165.60138	2 coho
Lake #1	Surf Bay Lake	8/20/2005	N/A	8/21/2005	1:40pm	**54.14877**	-165.60022	coho
Lake #1	Surf Bay Lake	8/20/2005	N/A	8/21/2005	1:57pm	**54.14848**	-165.59705	6 coho
Stream #2	Surf Bay Trib					**54.14825**	-165.60048	3 coho
Stream #2	Surf Bay Trib	8/21/2005	3:18 PM	8/25/2005	11:54am	**54.14792**	-165.60090	4coho
Stream #2	Surf Bay Trib	8/21/2005	3:30 PM	8/25/2005	12:14pm	**54.14735**	-165.60045	coho
Stream #2	Surf Bay Trib	8/21/2005	4:07 PM	8/25/2005	2:17pm	**54.14490**	-165.60144	2 coho
Stream #2	Surf Bay Trib	8/21/2005	4:00pm	8/25/2005	2:30pm	**54.14482**	-165.60225	3 coho
				8/28/2005		**54.14040**	-165.60014	coho
				8/28/2005		**54.13862**	-165.60306	3 coho
				8/28/2005		**54.14757**	-165.58856	coho

State of Alaska
Department of Fish and Game
Habitat and Restoration Division

Nomination for Waters Important to Anadromous Fish

ALASKA DEPT. OF FISH & GAME
OCT 13 1999
REGION II HABITAT AND RESTORATION DIVISION

Region: Southwestern

USGS Quad: UNIMAK (A-6)

Anadromous Water Catalog Number of Waterway: 10300 302-16-10300

Name of Waterway: 103 "North Stream"

☐ USGS Name ☒ Local Name

☒ Addition ☐ Deletion ☒ Correction ☐ Backup Information

For Office Use

Nomination #	99 203		11/10/2000
Revision Year:	00	Regional Supervisor	Date
Revision to: Atlas ___ Catalog ___		Ed [illegible]	11/5/99
Both X		AWC Project Biologist	Date
Revision Code:	B-1	J. Arome	2/11/00
		Drafted	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Coho Salmon	8/27/98			Adults (8)	☐
Pink Salmon	8/27/98			Adults (100's)	☐
Dolly Varden	8/27/98			Adults/juv.	☐
					☐
					☐

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments:
See Attached

Name of Observer (please print): Mark T. Schroeder (USFWS)

Signature: Mark T. Schroeder

Date: 9/3/99

Address: 605 W. 4th Ave, Rm G-62
Anchorage AK 99501

10/12/99

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes per AS 16.05.870.

Signature of Area Biologist: _____

Revision 3/97

On August 27, 1998, I surveyed streams at the head of Akutan Harbor for fish. There are three separate water courses; a north stream (identified as stream 10300), a south stream, and a central lake/wetland complex. The central lake complex flows into the inlet via an abrupt cut through the sandy berm at the head of the bay. Refer to annotated aerial photograph for location and additional information.

I used minnow traps and adult fish counts to determine the following information:

South Stream: Two minnow traps set in stream and connected wetlands captured 11 and 6 Dolly Varden and two sticklebacks.

I also observed hundreds of pink salmon upstream at least 1000' from the stream mouth. They likely were found further upstream, beyond where I turned around. Three spawned-out carcasses were observed and photographed.

Central Lake complex: Two minnow traps were set three times. #1 (lake) captured 53 and 18 sticklebacks; #2 (stream) captured 1 Dolly Varden and 1 stickleback; #3 (stream) captured 4 Dolly Varden. Two 6" Dolly Varden were observed in the narrow channel at the base of the slope.

North Stream (#10300): Two minnow traps set low in the stream course captured only Dolly Varden.

Large (16"+) Dolly Varden were observed in the stream. Hundreds of pink salmon and 8 Coho salmon were observed. The coho salmon were conspicuously larger than the pinks in mixed schools, typically in pools. They were observed from the bank at close range on multiple occasions.

Submitted to ADFG

Mark Schroeder

10/12/99

JD Johnson

From: Mike Wiedmer [mike_wiedmer@fishgame.state.ak.us]
Sent: Monday, March 13, 2006 4:02 PM
To: J Johnson
Subject: FW: HDR akun island sampling report

J.

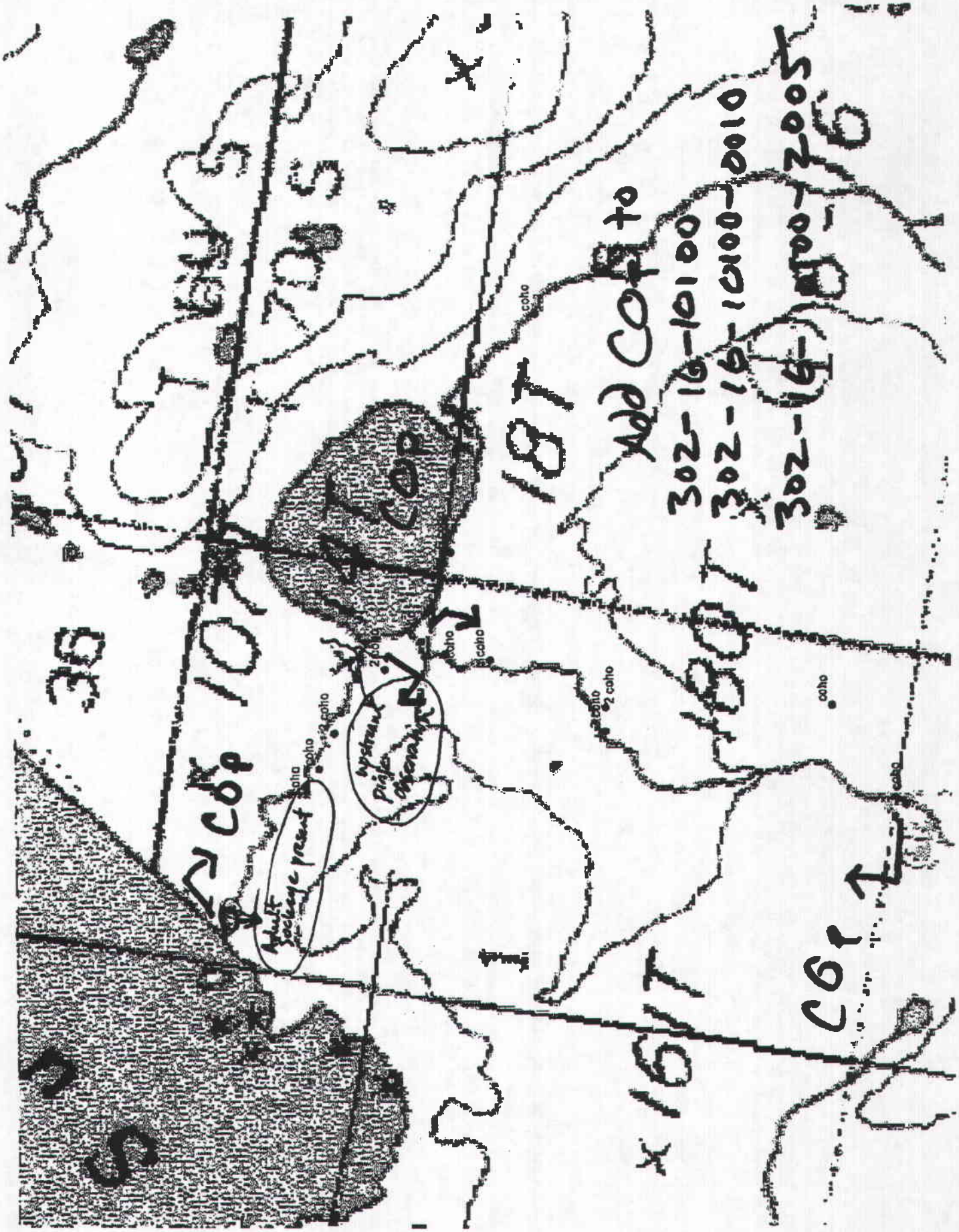
There appear to be several uncataloged streams identified in the attached report.

Mike
-----Original Message-----
From: Ed Weiss [mailto:ed_weiss@dnr.state.ak.us]
Sent: Monday, March 13, 2006 3:22 PM
To: mike_wiedmer@fishgame.state.ak.us
Subject: HDR akun island sampling report

FYI

Here's a report from some Pre NEPA work on an Akun Island site for the airport.

Edward W. Weiss
Habitat Biologist
Office of Habitat Management & Permitting
Alaska Department of Natural Resources
550 W. 7th Ave. Suite 1420
Anchorage, AK 99501
Phone: (907)-269-5901
FAX: (907)-269-5673
ed_weiss@dnr.state.ak.us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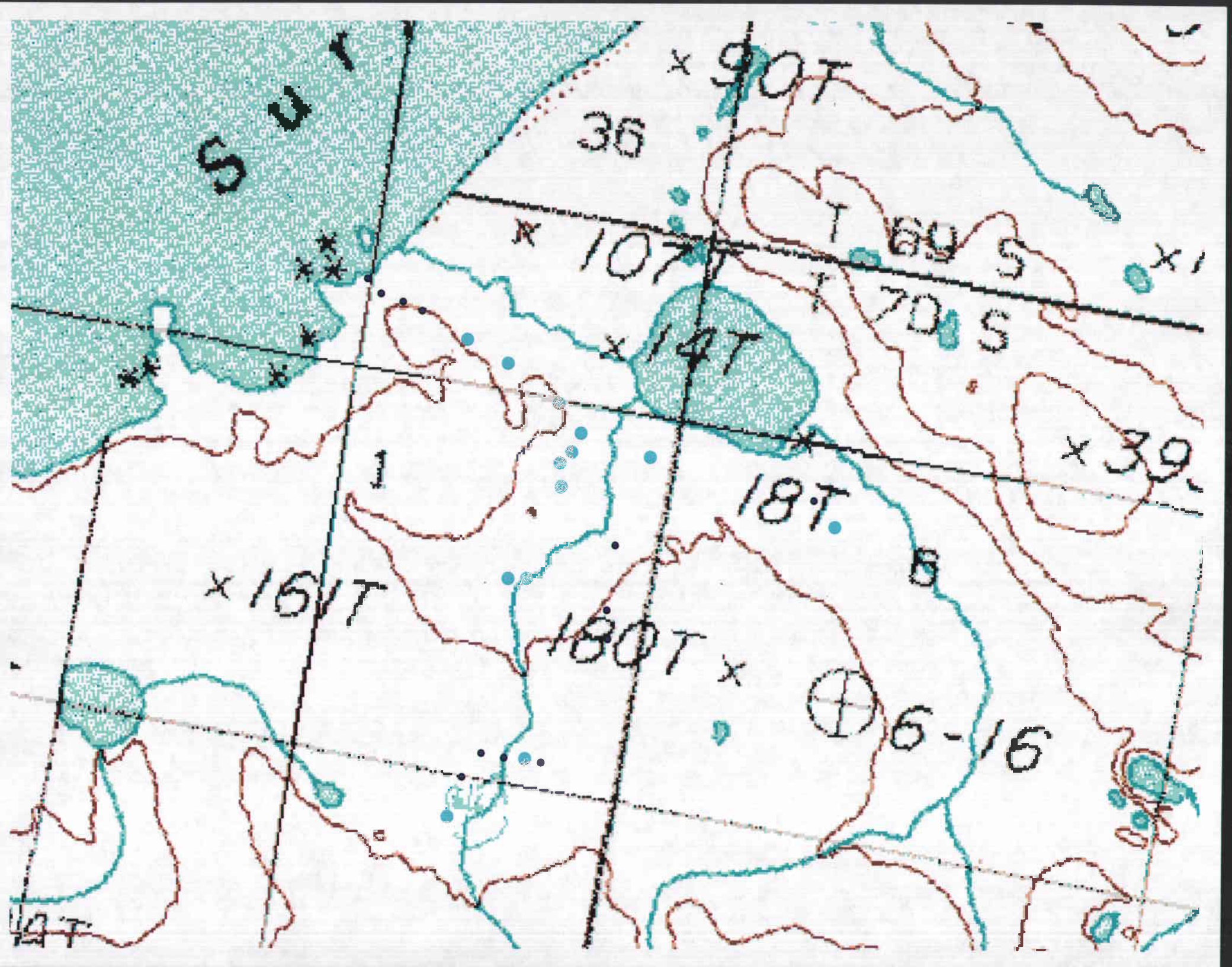
COP
Adult Sockeye present
Upstream Pink observation
coho
2 coho
36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36
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70 S
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180T
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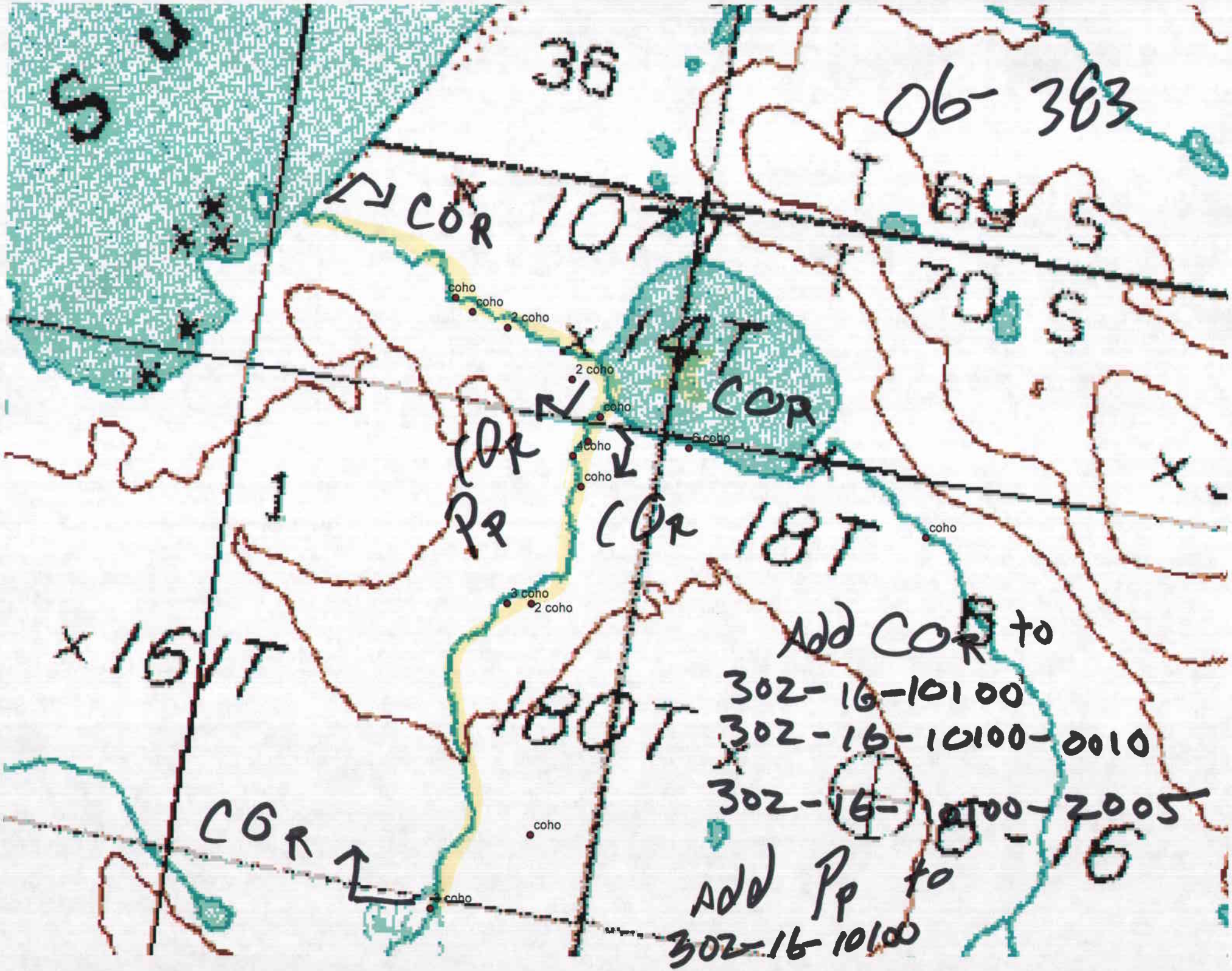

06-383
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T 70 S
COR
107T
coho
coho
2 coho
14T
2 coho
coho
COR
COR
4 coho
6 coho
coho
PP
COR
18T
coho
3 coho
2 coho
161T
180T
Add COR to
302-16-10100
302-16-10100-0010
302-16-10100-2005
18-16
coho
COR
coho
Add PP to
302-16-10100