State of Alaska
Department of Fish and Game
Division of Sport Fish

Nomination Form
Anadromous Waters Catalog

X

Region	Southeast	USGS Quad(s)	Craig A-3
AWC Number of Water Body	103-40-10440 -0010 (-2031)		
Name of Water body	Klakas Nephew	☐ USGS Name	☒ Local Name

☒ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

Nomination #	150061	James J Hasbrouck Fisheries Scientist	5/8/2015 Date
Revision Year:	2016	Habitat Operations Manager	5/8/15 Date
Revision to:	Atlas ___ Catalog ___ Both ✓	AWC Project Biologist	29 Apr 15 Date
Revision Code:	B-2, A-2	GIS Analyst	5/13/15 Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Coho salmon	July 1, 2, 8 and Sept 8, 2014	X	X		☒
Pink salmon	September 8, 2014	X			☒
Chum salmon	September 8, 2014	X		X	☒
Dolly Varden	July 1, 2, and 8, 2014			X	☐
Rainbow and Cutthroat trout	July 1, 2, and 8, 2014			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

See supplemental information attached. This package was prepared by Cathy Needham and Melanie Kadake. For questions or more information contact Ms. Kadake at 907-285-2666 or mjkadake13@gmail.com or Ms. Needham at 907-723-4436 or cathy@kaienvironmental.com

Add coho salmon Reading to 103-40-10440 add new lake 103-40-10440-0010 w/ coho and pink salmon present, add new Creek 103-40-10440-2031 w/coho salmon Reading

ALASKA DEPT. OF FISH & GAME
1 2014

Name of Observer (please print): Tony Sanderson

Signature: Tony Sanderson

Date: 12-9-14

Agency: Hydaburg Cooperative Association

Address: P.O. Box 349
Hydaburg, AK 99922

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 Anadromous Waters Catalog.

Signature of Area Biologist: ______________________ Date: ____________

Revision 11/13

Name of Area Biologist (please print):

Supplemental information for Klakas Nephew Stream 1

Thirteen baited minnow traps were soaked for 1-4 hours in Stream 1 in Klakas Nephew on July 1st, 2nd, & 8th 2014. The attached figure shows the trap locations. Stream 1 in Klakas Nephew is listed in the Anadromous Waters Catalog (103-40-10440). This current nomination is to include the presence and rearing of Coho salmon, spawning of pink salmon, and spawning and presence of chum salmon. It is also noted that dolly Varden, cutthroat and rainbow trout were present this section of the stream. An ADFG fish trapping permit datasheet is attached to this nomination packet for further details on fish trapping efforts. Adult foot counts were performed on September 8th, 2014 and adult pink salmon, chum salmon and Coho salmon were observed through reach 11 and were not present in reach 12 (see map for reach locations; adult foot count data sheets are attached).

Stream mapping and survey data was collected by the Hydaburg Cooperative Association Stream Survey crew for Stream 1 below on July 1st, 2nd, and 8th of 2014. Data was taken on thirteen reaches (reach numbers in the tables correspond to a master dataset; see attached figure for locations). Reaches 1-7 were surveyed as part of the mainstem to the stream, and Reaches 8-13 are a tributary. The stream survey data are in the following tables:

	Reach 1	**Reach 2**	**Reach 3**	**Reach 4**
Average stream gradient	2.6	2.6	1.75	3.1
Average bankfull width	8.5	12.2	9.9	11.4
Average channel bed width	7.4	9.2	8.5	9.8
Average incision depth	0.55	0.4	0.45	1.1
Bank composition	Mixed	Alluvium	Mixed	Mixed
Dominant substrate	Very Coarse gravel	Small cobble	Small cobble	Large cobble
Sub-dominate substrate	Small cobble and coarse gravel	Large cobble and very coarse gravel	Very coarse gravel and large cobble	Small, med, large boulder
Large wood count	0	22	6	40
Key wood count	0	14	4	12
Macro-pool count	2	18	8	17

	Reach 5	**Reach 6**	**Reach 7**	**Reach 8**
Average stream gradient	5.7	2.1	4.8	3.1
Average bankfull width	7.2	7.1	7.3	6.5
Average channel bed width	5.9	6.7	6.6	3.9
Average incision depth	0.63	0.56	0.6	0.51
Bank composition	Bedrock	Mixed	Mixed	Mixed
Dominant substrate	Bedrock	Bedrock	Small cobble	Very coarse gravel
Sub-dominate substrate	Small, Med, Large boulder	Small and large cobble	Very coarse gravel and large cobble	Small cobble and coarse gravel
Large wood count	15	27	69	17
Key wood count	8	19	42	10
Macro-pool count	18	14	25	8

	Reach 9	Reach 10	Reach 11	Reach 12
Average stream gradient	5.7	12.3	1.3	3.9
Average bankfull width	4.5	2.5	2.8	5.8
Average channel bed width	3.5	3.5	4.2	3.6
Average incision depth	0.51	0.7	0.79	0.52
Bank composition	Mixed	Mixed	Organic	Organic
Dominant substrate	Small cobble	Small boulder	Sand/silt	Sand/silt
Sub-dominate substrate	Very coarse gravel and large cobble	Small and large cobble	Very fine gravel and organic	Coarse gravel and organic
Large wood count	25	31	56	27
Key wood count	21	12	7	8
Macro-pool count	17	22	12	10

	Reach 13
Average stream gradient	5.3
Average bankfull width	5.5
Average channel bed width	2.7
Average incision depth	0.7
Bank composition	Mixed
Dominant substrate	Small cobble
Sub-dominate substrate	Very coarse gravel and organic
Large wood count	17
Key wood count	17
Macro-pool count	26

Reach 1 was classified as ESSC (Narrow Large, substrate estuarine), Reach 2 was classified as FPM (low gradient, multiple channel flood plain streams), Reach 3 & 6 were classified as LCS (Small low gradient contained channel), Reach 4 was classified as MCM (medium moderate gradient), Reach 5 was classified as MCS (Small moderate gradient), Reach 7, 8, 9, & 13 were classified as MMS (Small moderate gradient missed control channel), Reach 10 was classified as HCL (Low incision, high gradient), Reach 11 was classified as PAB (Beaver dam/pond), and Reach 12 was classified as PAS (low gradient, placid flow) There were no barrier features in Reaches 1-6 that were noted by the stream survey crew, and anadromous fish were found above these reaches. In the top of the main stem, the stream survey crew documented a Waterfall at waypoint 176, with a barrier height of 2 meters, barrier pool depth of 2 meters and barrier gradient of 75%. The stream crew documented a waterfall at the end of tributary 1 at waypoint 198, with a barrier height of 15 meters, barrier pool depth of 0.7 meters and barrier gradient of 85%. The stream crew didn't document a barrier on tributary 2 and fish habitat is present at the end of the tributary. The crew did not map or fish trap beyond this point, so it is unknown if the upper extent of fish habitat was reached.

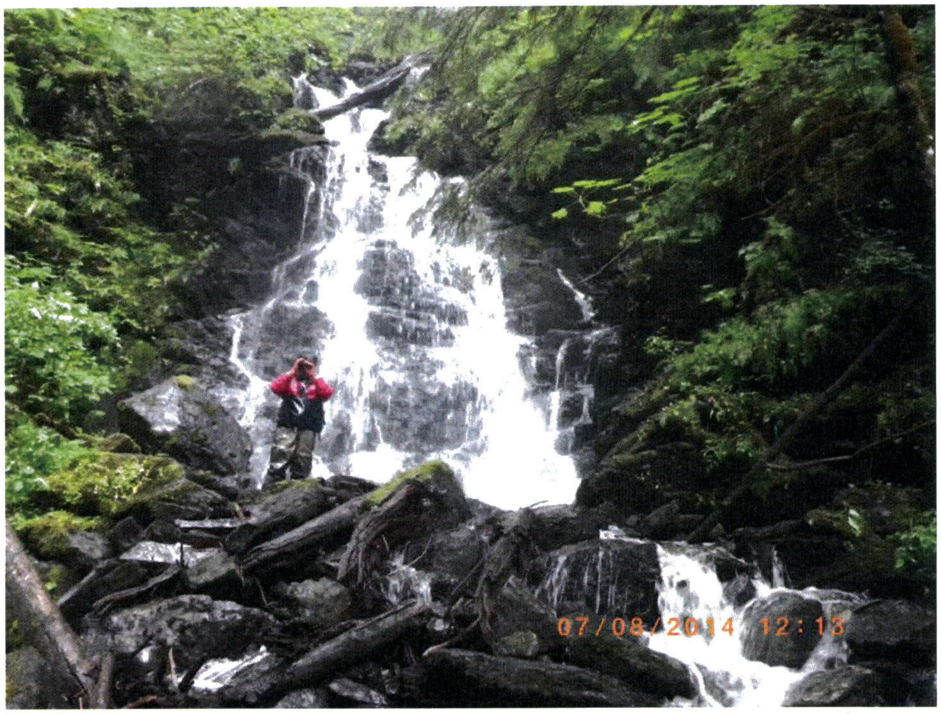
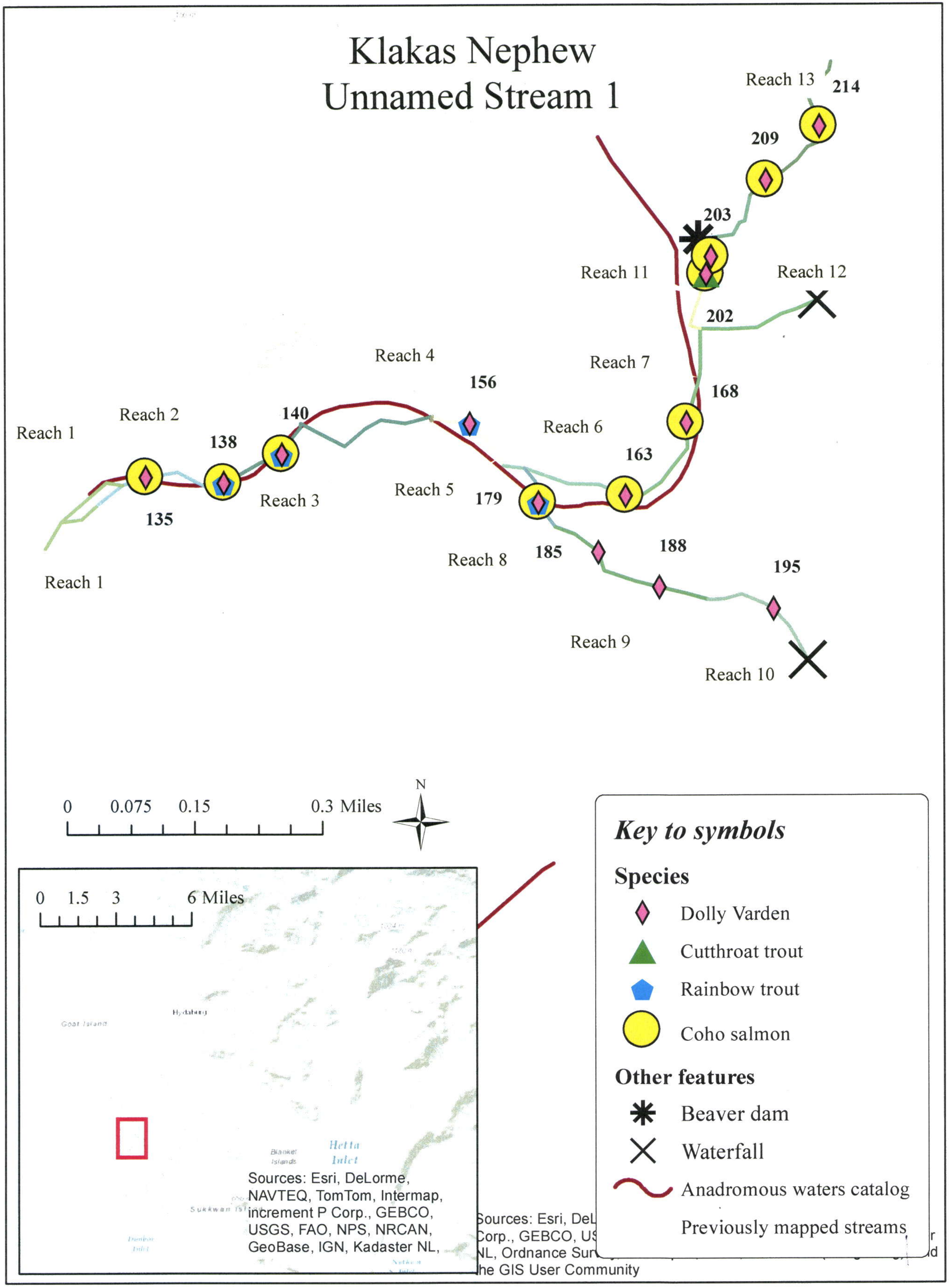


Photo 1: Tony Sanderson taking the downward gradient by th waterfall on trib. 1

Photo 2: Waterfall at the top of Reach 7 on stream 1 at Klekas Nephew

Klakas Nephew
Unnamed Stream 1



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL,

Sources: Esri, DeL
Corp., GEBCO, US
NL, Ordnance Sur
he GIS User Community

ADF&G permit no. SF2014-154

Summary report of fish collection activity.

The area biologist was contacted on: 6/9/14 at 10:35 a.m.

Location ID (optional)	Latitude	Longitude	Datum	Coordinate determination method	Name of water body	Date	Observer name (first name, middle initial, last name)	Fish collection method	Species	Life stage	Length (mm) No estimates/ranges	Disposition (1)
135	55.13851	-132.87399	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	110	measured and released
135	55.13851	-132.87399	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	60	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	68	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	87	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	85	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	98	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	72	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	86	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	87	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	75	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	87	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	55	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	102	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	120	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	118	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	85	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	60	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	73	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	85	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	82	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	80	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	105	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	100	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	92	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	90	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	70	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	60	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	75	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	94	measured and released
138	55.13840	-132.87168	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	64	measured and released

140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	120	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	95	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	81	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	94	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	77	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	75	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	87	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout			ID'ed and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	90	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	82	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	72	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	89	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	100	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	50	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	66	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	55	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	80	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	56	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	80	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	92	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	81	measured and released
140	55.13887	-132.86995	WGS84	GPS	Klekass Nephew	7/1/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	50	measured and released
156	55.13935	-132.86435	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	92	measured and released
156	55.13935	-132.86435	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	107	measured and released
156	55.13935	-132.86435	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	128	measured and released
156	55.13935	-132.86435	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	78	measured and released
156	55.13935	-132.86435	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	90	measured and released
156	55.13935	-132.86435	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	135	measured and released
156	55.13935	-132.86435	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	81	measured and released
156	55.13935	-132.86435	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	83	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	82	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	53	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	65	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	50	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	50	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	84	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	70	measured and released

163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	45	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	62	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	57	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	35	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	45	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	51	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	41	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	76	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	67	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	76	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	66	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	50	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	46	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	50	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	60	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	45	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	57	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	40	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	39	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden			ID'ed and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	37	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	64	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	45	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	35	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	35	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	55	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	52	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	40	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	65	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	35	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	50	measured and released
163	55.13809	-132.85974	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	42	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon			ID'ed and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	43	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	105	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	110	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	42	measured and released

168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	65	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	90	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	72	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	61	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	60	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	66	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	60	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	55	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	65	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	35	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	60	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	43	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	60	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	38	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	40	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	40	measured and released
168	55.13932	-132.85791	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	45	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	130	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	75	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	105	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	77	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	77	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	68	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	56	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	75	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	68	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	70	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	67	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	72	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	55	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	70	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	62	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	57	measured and released
179	55.13799	-132.86233	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	60	measured and released
185	55.13714	-132.86057	WGS84	GPS	Klekass Nephew	7/2/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	81	measured and released
185	55.13714	-132.86057	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	105	measured and released
185	55.13714	-132.86057	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	83	measured and released

185	55.13714	-132.86057	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	70	measured and released
185	55.13714	-132.86057	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	67	measured and released
185	55.13714	-132.86057	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	60	measured and released
188	55.13653	-132.85878	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	76	measured and released
188	55.13653	-132.85878	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	87	measured and released
188	55.13653	-132.85878	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	87	measured and released
188	55.13653	-132.85878	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	93	measured and released
188	55.13653	-132.85878	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	64	measured and released
195	55.13614	-132.85541	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	60	measured and released
202	55.14182	-132.85725	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	cutthroat trout	juvenile	185	measured and released
202	55.14182	-132.85725	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	75	measured and released
202	55.14182	-132.85725	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	40	measured and released
202	55.14182	-132.85725	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	165	measured and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	40	measured and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	46	measured and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	68	measured and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	60	measured and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	55	measured and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	61	measured and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	45	measured and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	49	measured and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden			ID'ed and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	40	measured and released
203	55.14212	-132.85710	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	40	measured and released
209	55.14340	-132.85546	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	52	measured and released
209	55.14340	-132.85546	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	71	measured and released
209	55.14340	-132.85546	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	56	measured and released
209	55.14340	-132.85546	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	54	measured and released
209	55.14340	-132.85546	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	70	measured and released
214	55.14430	-132.85384	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	78	measured and released
214	55.14430	-132.85384	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	48	measured and released
214	55.14430	-132.85384	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	45	measured and released
214	55.14430	-132.85384	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	42	measured and released
214	55.14430	-132.85384	WGS84	GPS	Klekass Nephew	7/8/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	52	measured and released

FISH ESCAPEMENT COUNTS

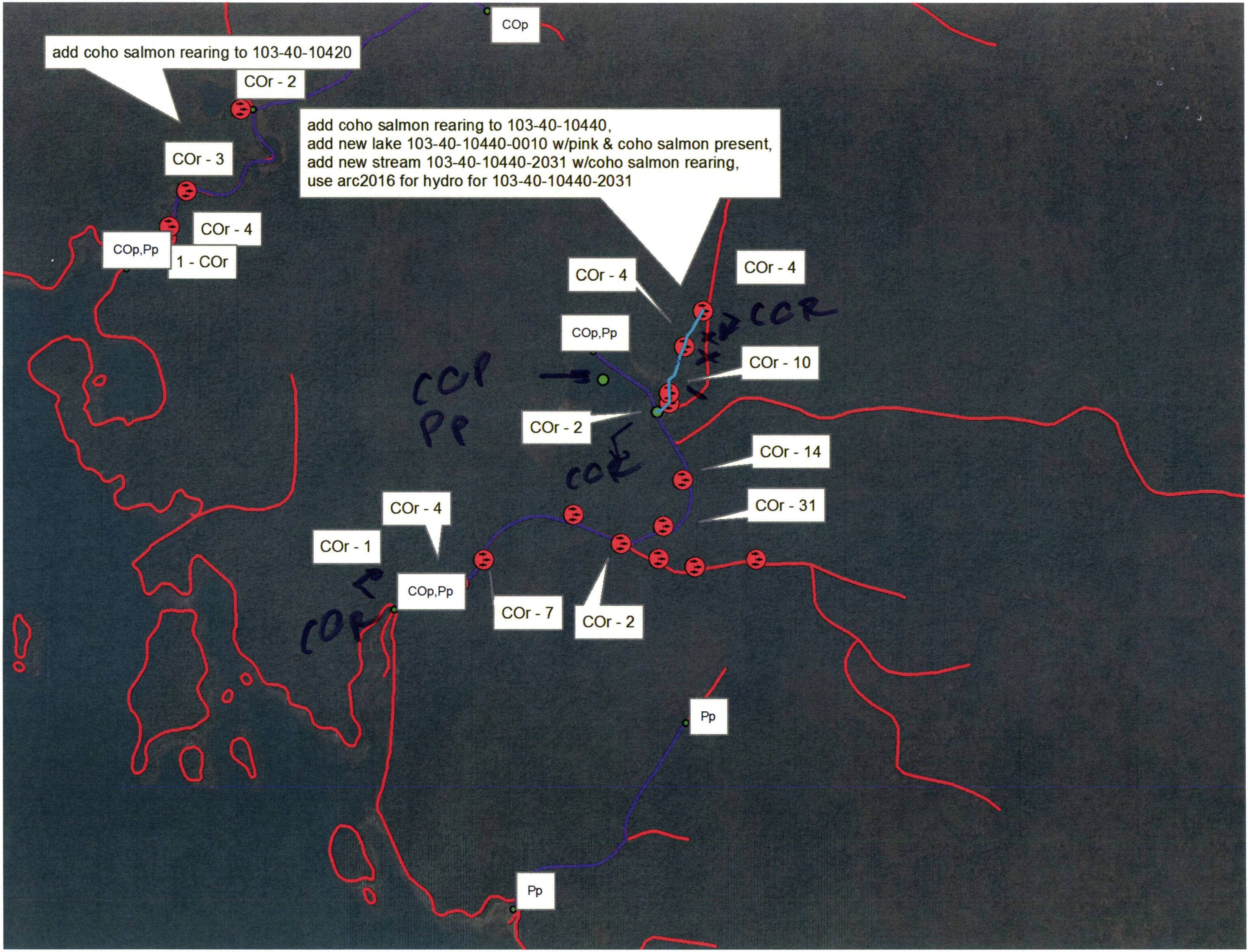
Hydaburg Cooperative Associtition Stream Habitat Surveys

Fish Habitat permit: SF2014-154 (various stream)

Date of Survey	Watershed	Stream/Tributary	Reach	Survey End GPS Point
9-8-14	Klakass Nephew	main stream		481

Index Area	Pink Salmon		Chum Salmon		Coho Salmon		Sockeye Salmon		Other	
	Live	Carcass	Live	Carcass	Live	Carcass	Live	Carcass	Live	Carcass
Mount	0	0	0	0	0	0	0	0	0	0
Intertidal	32	273	2	6	0	0	0	0	0	0
In Stream	2424	1495	10	159	51	3	0	0	0	0
Riparian	0	261	0	35	0	0	0	0	0	0
TOTAL NUMBERS	2456	2029	12	190	51	3	0	0	0	0
Upper GPS Point	482									

Observers	Wind	Weather	Water	Visibility	Bottom	Additional Comments
Tony S Kurt E	NW	clear	clear			No fish in trib I



add coho salmon rearing to 103-40-10420

add coho salmon rearing to 103-40-10440,
add new lake 103-40-10440-0010 w/pink & coho salmon present,
add new stream 103-40-10440-2031 w/coho salmon rearing,
use arc2016 for hydro for 103-40-10440-2031