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

Nomination Form
Anadromous Waters Catalog

Region: Southeast

USGS Quad(s): Craig B-3

Anadromous Waters Catalog Number of Waterway: 103-40-10350 - 2070 - 3031

Name of Waterway: Natzuhini River

[X] USGS Name [X] Local Name

[x] Addition [ ] Deletion [ ] Correction [ ] Backup Information

For Office Use

Nomination #	140089	James J Hasbrouck, Fisheries Scientist	9/3/2014 Date
Revision Year:	2015	Habitat Operations Manager	9/3/14 Date
Revision to: Atlas ____ Catalog ____ Both ✓		AWC Project Biologist	5/30/14 Date
Revision Code:	A-2, B-2, C-9	Cartographer	9/16/14 Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Coho Salmon	August 23, 2013		x		[x]
Dolly Varden	August 23, 2013			x	[ ]
					[ ]
					[ ]
					[ ]

Ref nom#
14-088
14-085
14-090
14-086
14-087

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 supplemental information.

This application was prepared by Cathy Needham, who may be reached at 907-723-4436 or cathy@kaienvironmental.com Revise hydrography and add coho salmon rearing to 103-40-10350; add new streams 103-40-10350-2070 & 2070-3031 w/ coho salmon rearing

Name of Observer (please print): Tony Sanderson

Signature: Tony Sanderson

Date: 5/16/14

Agency: Hydaburg Cooperative Association

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

ALASKA DEPT. OF FISH & GAME
MAY 19 2014

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: _____

02/08 Revision

Supplemental information for Natzuhini River (Unnamed Tributary J)

Five baited minnow traps, soaked for 1-5 hours, were set in an unnamed tributary of the Natzuhini River in August of 2013. The attached figures show the trap locations. This tributary to the Natzuhini River mainstem is not currently listed or mapped in the Anadromous Waters Catalog. The portion of the river in this packet is being nominated for rearing of coho salmon. This current nomination is to add an additional tributary to the river as coho rearing habitat, as shown by the number of juvenile coho salmon caught throughout the survey area. It is also noted that Dolly Varden were present in traps along the tributary. An ADFG fish trapping permit datasheet is attached to this nomination packet for further details on fish trapping efforts.

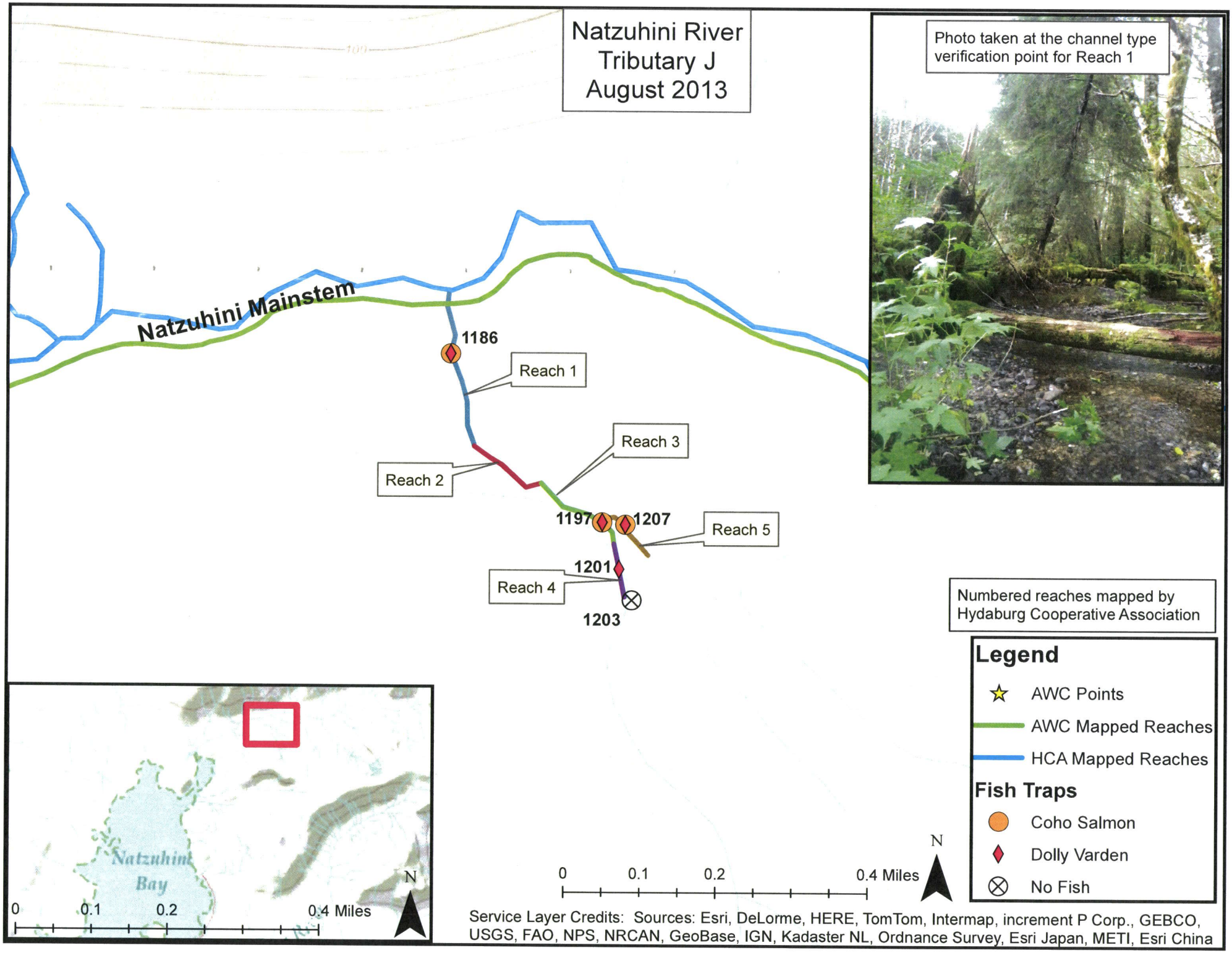
Stream mapping and survey data was collected by the Hydaburg Cooperative Association Stream Survey crew for this tributary of the Natzuhini River on August 23, 2013. Data was taken on five reaches (reach numbers in the tables correspond to a master dataset; see attached figures for locations). The stream crew reached the upper extent of fish habitat and completed mapping the southernmost reach (Reach 4) of this tributary, however, upper extent was not established along Reach 5 (see attached Figure). Stream survey data taken are included in the following table:

	Reach 1	**Reach 2**	**Reach 3**
Average stream gradient	3.5	7	7
Average bankfull width	6.5	4.6	4.3
Average channel bed width	4.1	3.8	3.1
Average incision depth	0.45	0.43	0.45
Bank composition	Organic	Organic	Organic
Dominant substrate	Very Coarse Gravel	Very Coarse Gravel	Very Coarse Gravel
Sub-dominate substrate	Small Cobble	Small Cobble	Small Cobble
Large wood count	52	25	22
Key wood count	20	7	10
Macro-pool count	25	8	16

	Reach 4	**Reach 5**
Average stream gradient	14.4	9.2
Average bankfull width	3.2	2.6
Average channel bed width	2.3	3.1
Average incision depth	0.55	0.45
Bank composition	Organic	Organic
Dominant substrate	BR	Very Coarse Gravel
Sub-dominate substrate	LMB	Small Cobble
Large wood count	3	15
Key wood count	6	9
Macro-pool count	9	7

All five of the reaches were classified as a MM1 (small moderate gradient mixed control channel). The upper extent of fish habitat was determined to be a waterfall along Reach 4; the barrier had a height of 1.5 m, a pool 0.5 m deep and the gradient was 90%. The following is a picture of the waterfall.

Photo 1: Waterfall at the upper extent of fish passage along Reach 4.


Natzuhini River
Tributary J
August 2013
Photo taken at the channel type verification point for Reach 1
Natzuhini Mainstem
1186
Reach 1
Reach 2
Reach 3
1197
1207
Reach 5
1201
Reach 4
1203
Numbered reaches mapped by Hydaburg Cooperative Association
Legend
AWC Points
AWC Mapped Reaches
HCA Mapped Reaches
Fish Traps
Coho Salmon
Dolly Varden
No Fish
Natzuhini Bay
0
0.1
0.2
0.4 Miles
N
Service Layer Credits: Sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China

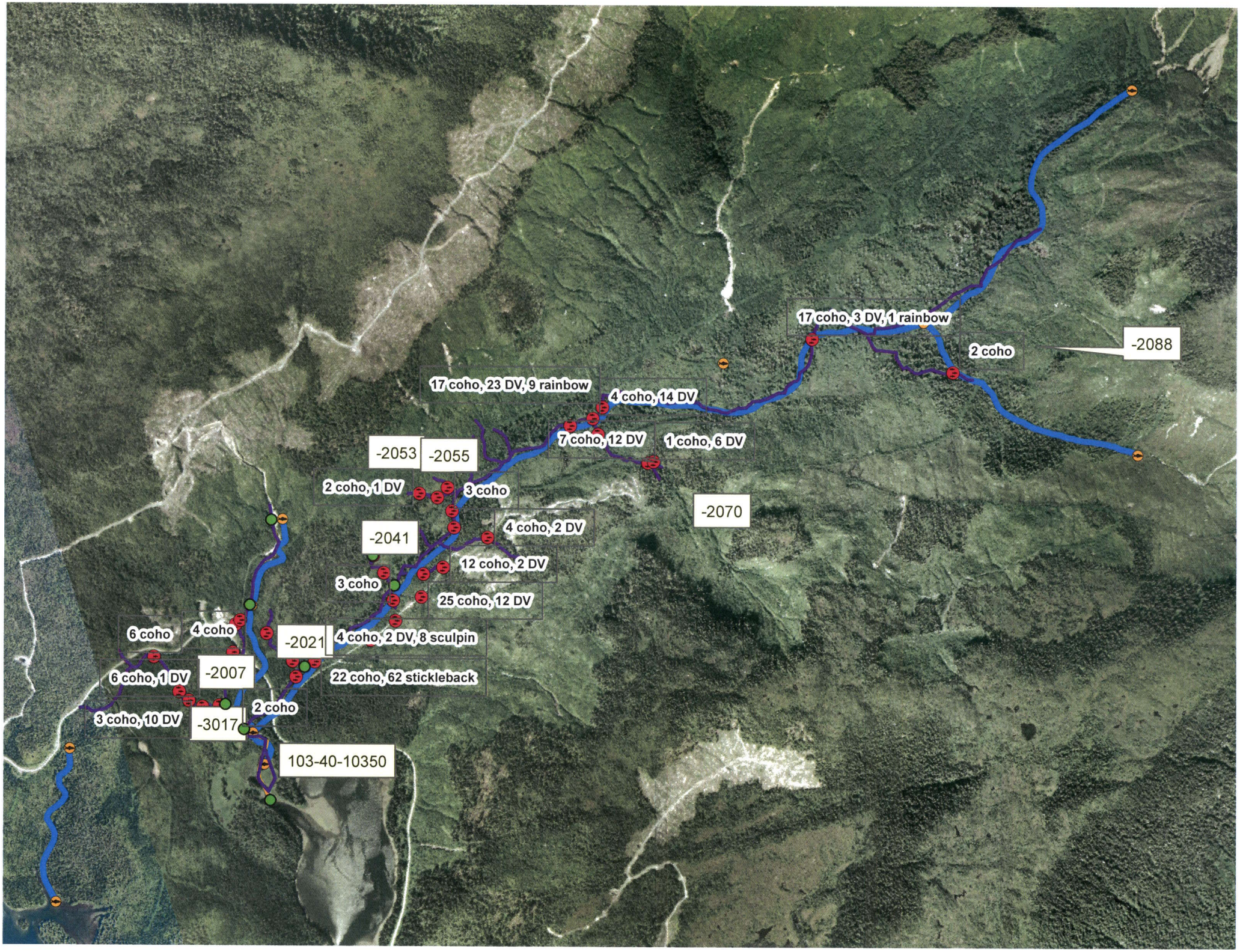
ADF&G permit no. SF2013-208

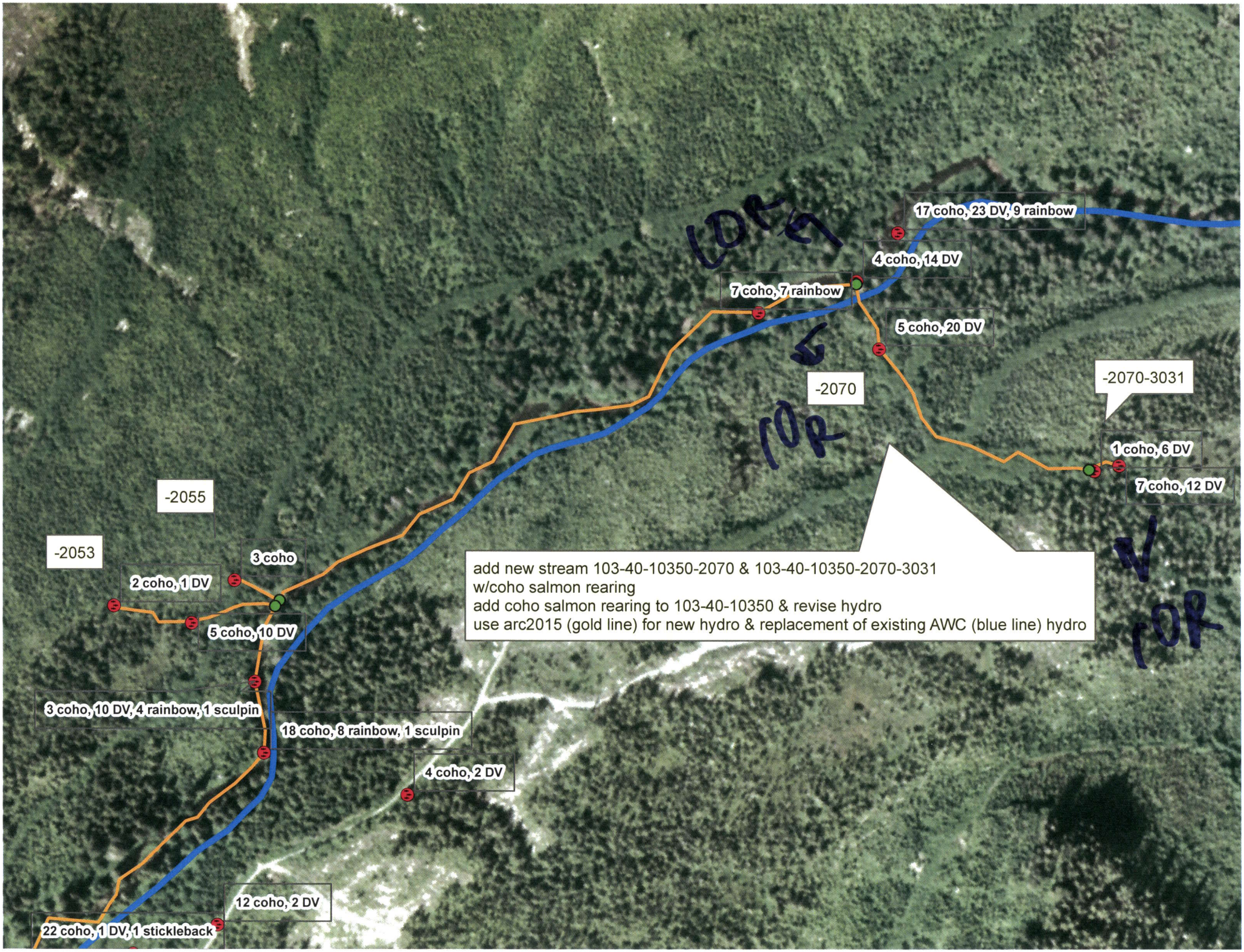
Summary report of fish collection activity.

The area biologist was contacted on: 3:09pm on 5/29/13

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	Length method	Disposition (1)
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	63	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	90	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	115	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	76	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	85	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	55	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	60	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	70	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	110	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	108	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	80	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	90	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	78	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	110	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	112	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	120	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	103	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	73	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	59	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	75	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	104	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	107	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	85	fork	measured and released
1186	55.290623	-132.798254	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	77	fork	measured and released
1197	55.288795	-132.795361	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	70	fork	measured and released
1197	55.288795	-132.795361	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	105	fork	measured and released
1197	55.288795	-132.795361	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	95	fork	measured and released
1197	55.288795	-132.795361	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	97	fork	measured and released
1197	55.288795	-132.795361	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	67	fork	measured and released
1197	55.288795	-132.795361	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	88	fork	measured and released
1197	55.288795	-132.795361	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	77	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	95	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	62	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	55	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	75	fork	measured and released

1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	100	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	50	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile		fork	ID'ed and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	75	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	55	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	65	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	60	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	95	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	75	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	52	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	52	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	100	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	85	fork	measured and released
1207	55.28877	-132.794923	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	85	fork	measured and released
1201	55.288287	-132.795035	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	80	fork	measured and released
1201	55.288287	-132.795035	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	110	fork	measured and released
1201	55.288287	-132.795035	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	115	fork	measured and released
1201	55.288287	-132.795035	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	117	fork	measured and released
1203	55.287951	-132.794791	WGS84	GPS	Natzuhini	8/23/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	137	fork	measured and released
								Minnow Trap	no fish collected or observed				


17 coho, 3 DV, 1 rainbow
2 coho
-2088
17 coho, 23 DV, 9 rainbow
4 coho, 14 DV
7 coho, 12 DV
1 coho, 6 DV
-2053
-2055
2 coho, 1 DV
3 coho
-2070
-2041
4 coho, 2 DV
12 coho, 2 DV
3 coho
25 coho, 12 DV
6 coho
4 coho
-2021
4 coho, 2 DV, 8 sculpin
-2007
6 coho, 1 DV
22 coho, 62 stickleback
2 coho
3 coho, 10 DV
-3017
103-40-10350


17 coho, 23 DV, 9 rainbow
4 coho, 14 DV
7 coho, 7 rainbow
5 coho, 20 DV
-2070
-2070-3031
1 coho, 6 DV
7 coho, 12 DV
-2055
-2053
3 coho
2 coho, 1 DV
5 coho, 10 DV
3 coho, 10 DV, 4 rainbow, 1 sculpin
18 coho, 8 rainbow, 1 sculpin
4 coho, 2 DV
12 coho, 2 DV
22 coho, 1 DV, 1 stickleback
add new stream 103-40-10350-2070 & 103-40-10350-2070-3031
w/coho salmon rearing
add coho salmon rearing to 103-40-10350 & revise hydro
use arc2015 (gold line) for new hydro & replacement of existing AWC (blue line) hydro