



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

Nomination Form
Anadromous Waters Catalog



Region Southeast USGS Quad(s) Craig A-3

AWC Number of Water Body 103-40-10540 - 2030

Name of Water body Dunbar Inlet Unnamed Stream 2 USGS Name Local Name

Addition Deletion Correction Backup Information

For Office Use

Nomination # <u>150053</u>	<u>James J. Harbouch</u> Fisheries Scientist	<u>5/8/2015</u> Date
Revision Year: <u>2016</u>	<u>[Signature]</u> Habitat Operations Manager	<u>5/8/15</u> Date
Revision to: Atlas _____ Catalog _____ Both <input checked="" type="checkbox"/>	<u>[Signature]</u> AWC Project Biologist	<u>30 Apr 15</u> Date
Revision Code: <u>B-2, A-2</u>	<u>TJ</u> GIS Analyst	<u>5/13/15</u> Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Coho salmon	June 26, July 10 & 17, Sept 3, 2014	X	X		<input checked="" type="checkbox"/>
Pink salmon	Sept. 3, 2014	X			<input checked="" type="checkbox"/>
Chum salmon	Sept 3, 2014	X		X	<input checked="" type="checkbox"/>
Dolly Varden	June 26, July 10 & 17, 2014			X	<input type="checkbox"/>
Rainbow trout	June 26, July 10 & 17, 2014			X	<input type="checkbox"/>

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 rearing / spawning to 103-40-10540
Add coho, pink, and chum salmon spawning and chum salmon present to 103-40-10540
Add new stream 103-40-10540-2030 w/coho salmon rearing

Name of Observer (please print): Tony Sanderson

Signature: [Signature]

Agency: Hydaburg Cooperative Association

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

Date: 12-8-14

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FISH & GAME

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): _____

Dunbar Inlet Unnamed Stream 2

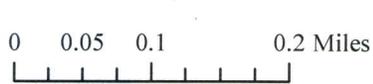
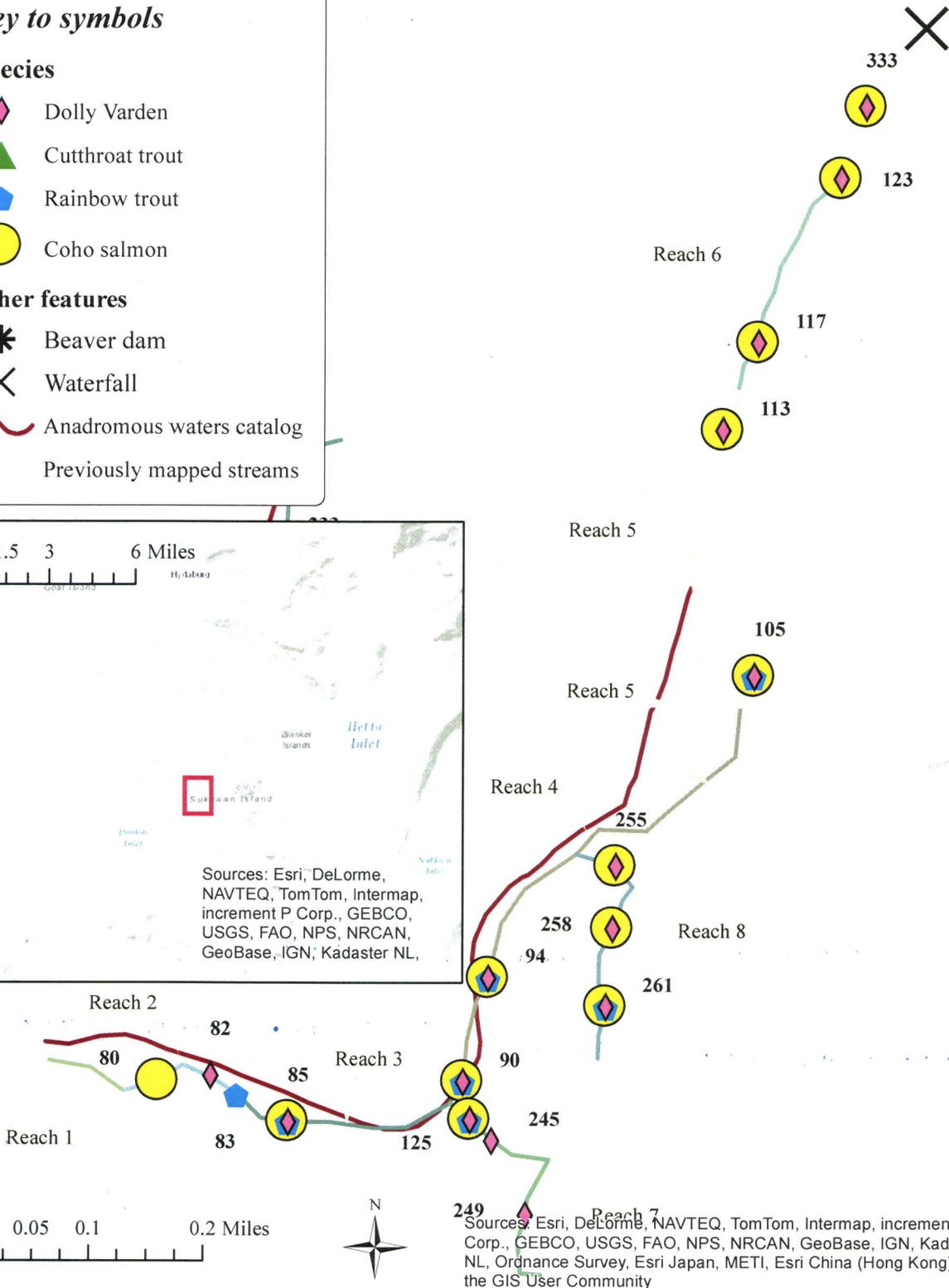
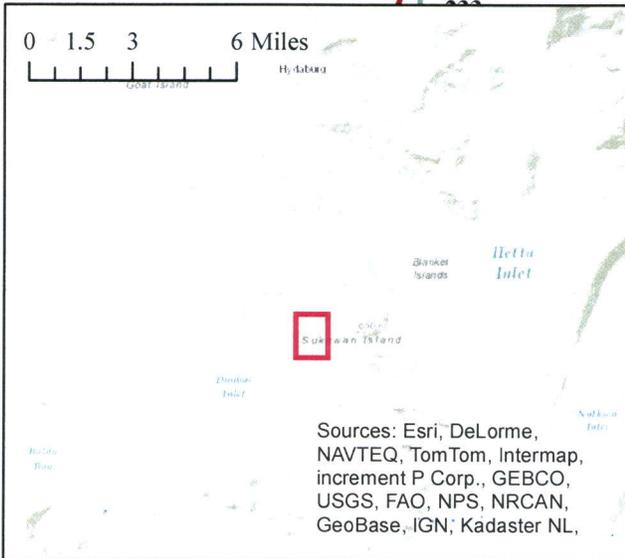
Key to symbols

Species

-  Dolly Varden
-  Cutthroat trout
-  Rainbow trout
-  Coho salmon

Other features

-  Beaver dam
-  Waterfall
-  Anadromous waters catalog
-  Previously mapped streams



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

Supplemental information for Dunbar Inlet Stream 2

Ten baited minnow traps were soaked for 1-10 hours in Stream 2 in Dunbar Inlet on June 26th and July 10th & 17th, 2014. The attached figure shows the trap locations. Stream 2 in Dunbar Inlet is listed in the Anadromous Waters Catalog (103-40-10540) for Coho and pink salmon present. This current nomination is to include the spawning and rearing of Coho salmon, spawning of pink salmon, and spawning and presence of chum salmon. It is also noted that rainbow trout and Dolly Varden 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 3rd, 2014 and adult pink salmon and chum salmon and Coho salmon were observed through reach 5 (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 2 below on June 26th and July 10th and 17th of 2014. Data was taken on twelve (reach numbers in the tables correspond to a master dataset; see attached figure for locations). Reaches 1-6, 11 and 12 were surveyed as part of the main stem to the stream, and Reaches 7-10 are tributaries. The stream survey data are in the following tables:

	Reach 1	Reach 2	Reach 3	Reach 4
Average stream gradient	2.6	3.4	3.5	4
Average bankfull width	9.5	9.5	7.8	13.8
Average channel bed width	9	9	8.3	8.8
Average incision depth	0.89	0.8	1.1	0.8
Bank composition	Organic	Organic	Bedrock	Organic
Dominant substrate	Large Cobble	Small cobble	Bedrock	Very Course gravel
Sub-dominate substrate	Small cobble and Very course gravel	Large coble and Small boulder	Large cobble and sand/silt	Small cobble and course gravel
Large wood count	5	0	5	61
Key wood count	7	7	13	46
Macro-pool count	11	9	17	45

	Reach 5	Reach 6	Reach 11	Reach 12
Average stream gradient	4.35	6.55	15.4	7.9
Average bankfull width	9.6	8	8.4	12.1
Average channel bed width	6.2	6.1	5.8	6.5
Average incision depth	0.86	0.9	0.61	0.41
Bank composition	Mixed	Mixed	Mixed	Mixed
Dominant substrate	Small cobble	Small cobble	Bedrock	Large cobble
Sub-dominate substrate	Large cobble and very course gravel	Large cobble and bedrock	Large cobble and Small boulder	Small cobble and small boulder
Large wood count	16	31	0	18
Key wood count	52	22	8	24
Macro-pool count	36	32	7	25

	Reach 7	Reach 8	Reach 9	Reach 10
Average stream gradient	7.9	14.5	1.7	3
Average bankfull width	1.5	1.8	2.5	2
Average channel bed width	2.7	1.3	2.6	1.9
Average incision depth	0.65	0.5	0.4	0.6
Bank composition	Mixed	Mixed	Organic	Mixed
Dominant substrate	Small cobble	Small cobble	Course gravel	Course gravel
Sub-dominate substrate	Very course gravel and large cobble	Large cobble and Small boulder	Very course gravel and med. gravel	Very course gravel and med. gravel
Large wood count	20	6	34	39
Key wood count	26	1	12	9
Macro-pool count	28	6	14	12

Reach 1, 2, 5, and 10 were classified as MMS (Small Moderate gradient). Reach 3 was classified as MCS (Small moderate gradient) and Reach 4 was classified as MMM (Medium width moderate gradient). Reach 6 was classified as HCLw (Low incision high gradient wetland phase). Reach 7 & 8 were classified as HCO (Micro High gradient). Reach 9 was classified as LCS (Small low gradient). Reach 11 was classified as HCM (Moderate incision high gradient). Reach 12 was classified as HCV (A steep, upper valley, forested stream). 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. A tributary came into Reach 3 (discussed as Reaches 7 & 8). There was no barrier features that were noted by the stream survey crew and no anadromous fish present either. Another tributary came into Reach 4 (Discussed as reaches 9 & 10), there were no barrier featured but there were anadromous fish found in these reaches. At the top of the 12th reach, the crew documented a waterfall at waypoint 336, with a barrier height of 11 meters, a pool depth of 0.80 meters and a gradient of 90 degrees. Even though the crew did not map or fish trap beyond this point, it is unlikely fish would pass the barrier. Therefore the upper extent of the mainstem of Stream 2 is likely at the end of reach 12.

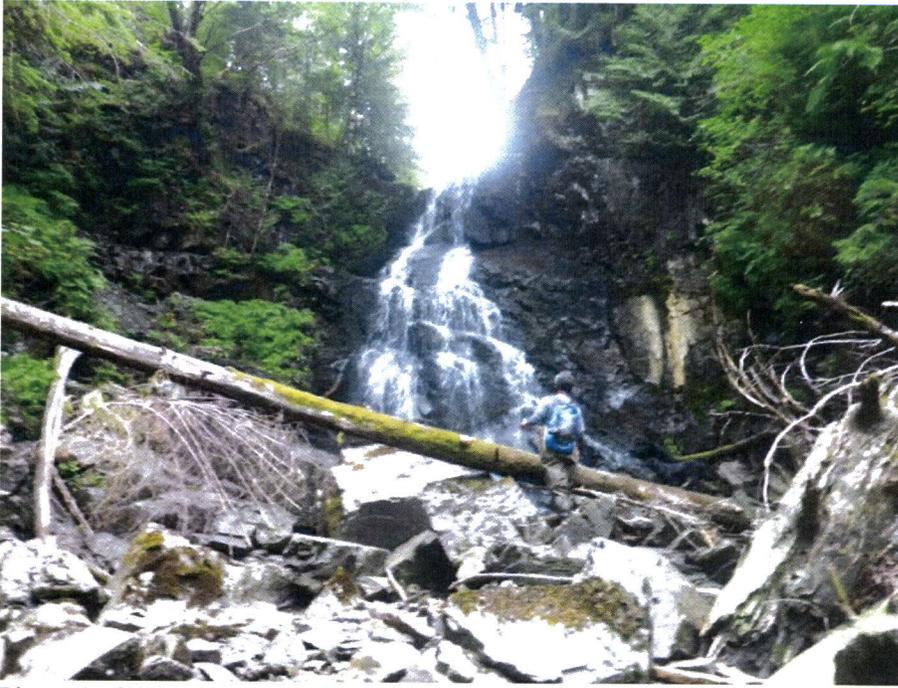


Photo 1: GWF at the top of reach 12 on stream 2



Photo 2: Tony Sanderson setting a minnow trap on Stream 2 Tributary 1.

ADF&G permit no. SF2014-154

Summary report of fish collection activity.

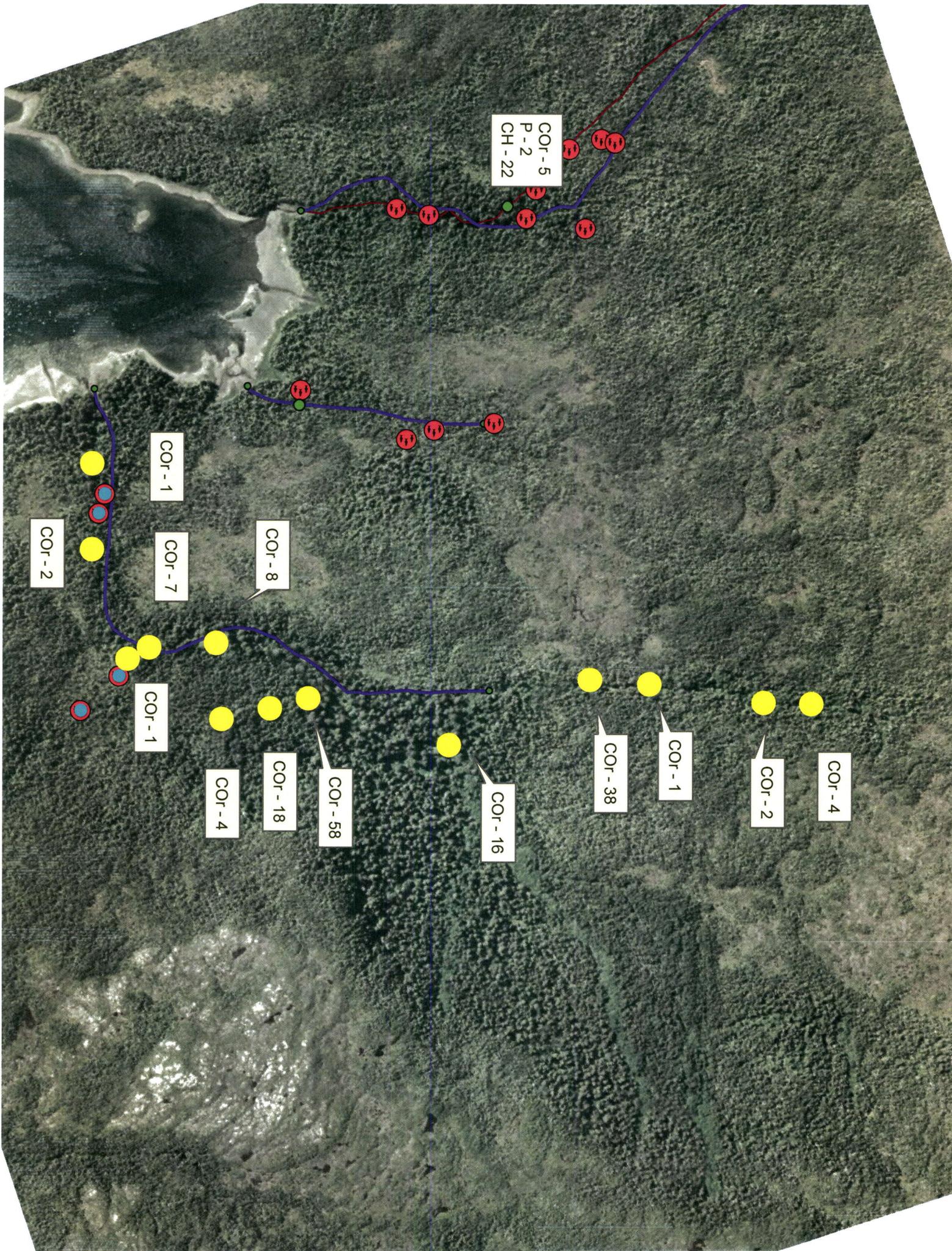
The area biologist was contacted on: 6/9/14 at 10:35 a.m.

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)
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	84	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	83	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	97	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	105	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	85	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	67	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	82	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	72	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	54	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	47	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	86	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	73	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	77	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	74	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	65	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	50	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	60	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	72	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	69	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	86	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	52	measured and released
90	55.09004	-132.80044	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	51	measured and released
94	55.09135	-132.79985	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	45	measured and released
94	55.09135	-132.79985	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	153	measured and released
94	55.09135	-132.79985	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	81	measured and released
94	55.09135	-132.79985	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	125	measured and released
94	55.09135	-132.79985	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	128	measured and released
94	55.09135	-132.79985	WGS84	GPS	Dunbar Inlet	6/26/2014	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	128	measured and released

ID ed and released

333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	74	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	68	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	70	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	72	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	87	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	100	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	87	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	71	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	68	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	92	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	62	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	59	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	57	measured and released
333	55.10231	-132.79130	WGS84	GPS	Dunbar Inlet	7/17/2014	Tony Sanderson	Minnow Trap	coho salmon	juvenile	65	measured and released





COR - 5
P - 2
CH - 22

COR - 1

COR - 7

COR - 8

COR - 2

COR - 1

COR - 4

COR - 18

COR - 58

COR - 16

COR - 38

COR - 1

COR - 2

COR - 4

Johnson, J D (DFG)

To: Cathy Needham
Subject: RE: Dunbar Inlet Unnamed Stream 1 - lower wpt 42

Cathy

Since the data sheet indicates observation of a single juv coho salmon there is no need re-do to the nom form as the dept requires documented observations of at least two fish per species/life stage to revise the AWC. I'll note in supplemental data that coho salmon adult observations were not made in this water body. I'll note observation of single juv coho salmon on nom form.

J. Johnson
AWC Project Biologist
907-267-2337

From: Cathy Needham [mailto:cathy@kaienvironmental.com]
Sent: Wednesday, April 29, 2015 7:45 PM
To: Johnson, J D (DFG)
Cc: Melanie Kadake
Subject: RE: Dunbar Inlet Unnamed Stream 1 - lower wpt 42

Hi J, sorry for getting back to you so late in the day, I was at a symposium today.

For Dunbar unnamed stream 1 there were no adult coho in the foot counts. However, now that I've gone back and looked at the packet, there was a juvenile coho trapped in Reach 5 in trap #74. Would you like for us to re-do this nomination package since we did not include coho rearing on the cover sheet or in the supplemental, and since there is an error/confusion with the absence of adult coho? I should be able to fix this tomorrow when I get back to Juneau, the only thing that will take longer is getting a signature (maybe the first signature will count) on the cover sheet.

Thanks! Cheers, Cathy

From: Johnson, J D (DFG) [mailto:j.johnson@alaska.gov]
Sent: Wednesday, April 29, 2015 1:43 PM
To: cathy@kaienvironmental.com
Subject: Dunbar Inlet Unnamed Stream 1 - lower wpt 42

Supplemental info page – states that “Adult foot counts were performed on Sept 4th, 2014 and adult pink, chum, and coho salmon were observed thru reach 3”
However Fish Escapement Counts data sheet lists 0 counts for coho salmon, so were adults observed or not?

FISH ESCAPEMENT COUNTS

Hydaburg Cooperative Association Stream Habitat Surveys

Fish Habitat permit: SF2014-154 (various stream)

Date of Survey	Watershed	Stream/Tributary	Reach	Survey End GPS Point
9-3-14	Watershed	Stream 2		478

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	3	1	0	0	0	0	0	0	0	0
In Stream	2500	83	302	77	169	0	0	0	0	0
Riparian	0	44	0	22	0	0	0	0	0	0
TOTAL NUMBERS	2683	128	302	99	169	0	0	0	0	0
Upper GPS Point										

Observers	Wind	Weather	Water	Visibility	Bottom	Additional Comments
Scott S Gardner	SE 11	Partly				no fish in reach 1-2

