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

Nomination Form
Anadromous Waters Catalog

Region: Southeast

USGS Quad(s): Craig A-2

Anadromous Waters Catalog Number of Waterway: 105-21-10270 10262

Name of Waterway: Keete Inlet Unnamed Stream 6

USGS Name Local Name

x Addition Deletion Correction Backup Information

For Office Use

Nomination #	140040	Fisheries Scientist	4/25/14 Date
Revision Year:	2015	Habitat Operations Manager	4/25/14 Date
Revision to:	Atlas ____ Catalog ____ Both x	AWC Project Biologist	5/29/14 Date
Revision Code:	A-2	Cartographer	5/19/14 Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Coho salmon	6/18 and 7/11 of 2013		X	X	X
Rainbow trout	6/18 and 7/11 of 2013			X	
Dolly Varden	6/18 and 7/11 of 2013			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 attached supplemental information.

This application was prepared by Cathy Needham, who may be reached at (907)723-4436 or cathy@kaienvironmental.com.

Add New stream w/ Coho sm/mor rearing

Name of Observer (please print): Tony Sanderson

Signature: Tony Sanderson Date: 1-9-14

Agency: Hydaburg Cooperative Association

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

02/08 Revision

Supplemental information for Keete Inlet Stream 6

Five baited minnow traps were soaked for 2-4 hours in Stream 6 in Keete Inlet on June 18 and July 11, 2013. The attached figure shows the trap locations. Stream 6 in Keete Inlet is not listed in the Anadromous Waters Catalog. This current nomination is to include the presence and rearing of coho salmon in a newly mapped anadromous stream. 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.

Stream mapping and survey data was collected by the Hydaburg Cooperative Association Stream Survey crew for Stream 6 below on July 11, 2013. Data was taken on seven reaches (reach numbers in the tables correspond to a master dataset; see attached figure for locations). Reaches 1-3 and 7 were surveyed as part of the mainstem to the stream, and Reaches 4-6 are a tributary. The stream survey data are in the following tables:

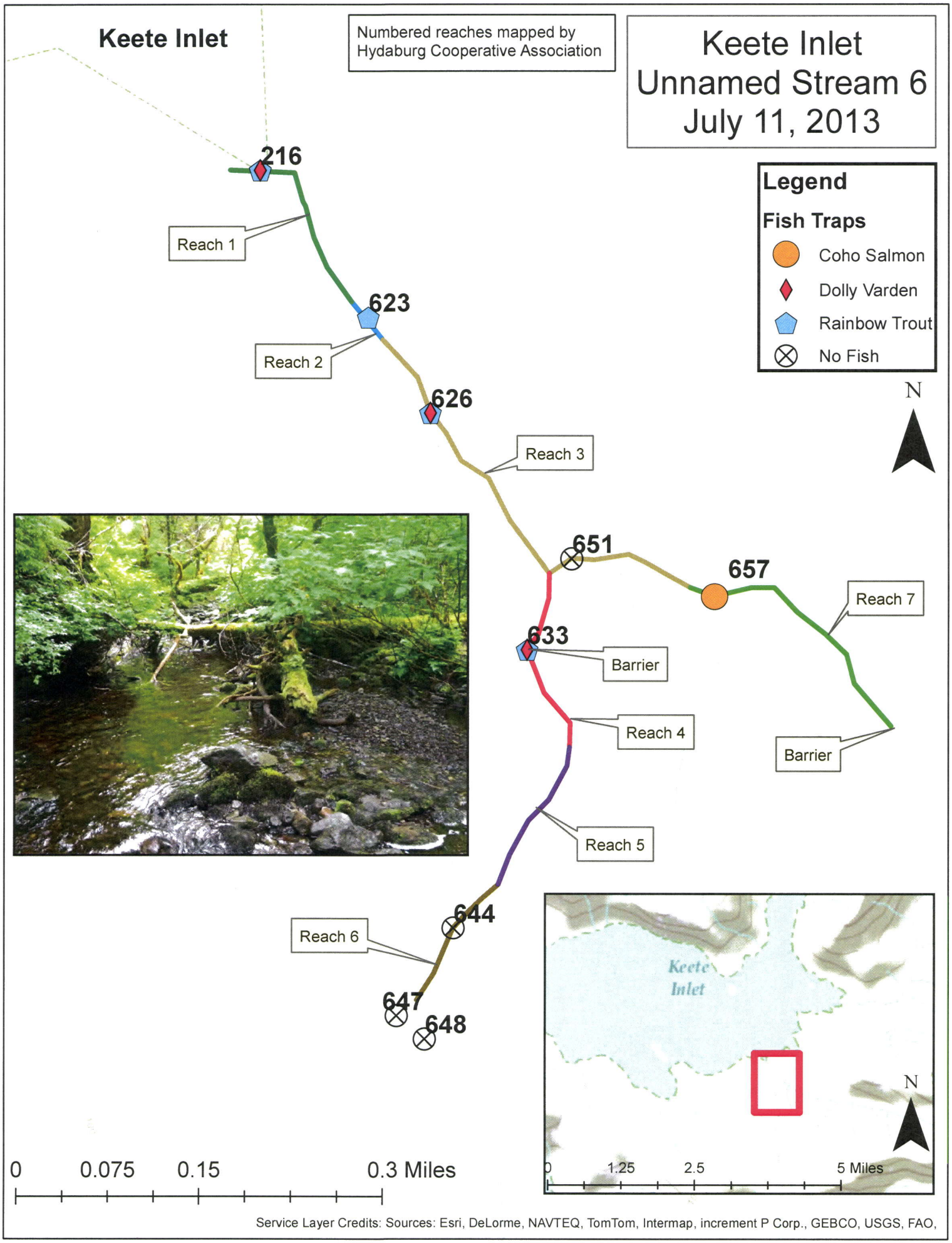
	Reach 1	**Reach 2**	**Reach 3**	**Reach 7**
Average stream gradient	1.275	6.1	0.85	7.875
Average bankfull width	8.2	8.5	9.7	5.5
Average channel bed width	8	4.9	6.96	5.02
Average incision depth	0.73	1.2	0.75	0.64
Bank composition	Mix Alluvial/Bedrock	Bedrock	Organic	Organic
Dominant substrate	Small cobble	Bedrock	Small cobble	Small cobble
Sub-dominate substrate	Very course gravel and Large cobble	Large and Small boulder	Large cobble and Very course gravel	Very course gravel and Large cobble
Large wood count	31	5	107	86
Key wood count	20	5	59	36
Macro-pool count	19	7	36	383

	Reach 4	**Reach 5**	**Reach 6**
Average stream gradient	3.475	3.025	3.025
Average bankfull width	6.7	7.1	5.7
.Average channel bed width	5.96	5.0	2.6
Average incision depth	0.61	0.35	0.93
Bank composition	Organic	Organic	Organic
Dominant substrate	Small cobble	Small cobble	Small cobble
Sub-dominate substrate	Large cobble and Very course gravel	Very course gravel and Large cobble	Large cobble and Very course gravel
Large wood count	71	31	40
Key wood count	31	14	8
Macro-pool count	40	24	17

Reach 1 was classified as LCS (low gradient contained), Reach 2 was classified as HCL (high gradient low incision contained) and Reach 3 was classified as PAS (narrow placid flow channel). There were no barrier features in Reaches 1-3 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 4-6 below). Reach 7, the upper portion of the mainstem of Stream 6, was classified as HCL. Coho salmon were found in trap 657 within this reach. At the top of the reach, the crew documented a barrier with a barrier height of 0.75 meters, a pool depth of 0.65 meters and a gradient of 90%. The crew did not map or fish trap beyond this point, so it is unknown if the upper extent of fish habitat was reached.

Reach 4 was classified as MCS (moderate gradient contained). A barrier was noted by the crew in Reach 4 with a barrier height of 1.5 meters, a pool depth of 0.35 meters and a gradient of 90%. There were three fish traps placed in the upper portion of the tributary, and no fish were caught. This barrier may be an impediment to fish passage. Reach 5 was classified as MMS (moderate gradient mixed control) and Reach 6 was classified as MCS (moderate gradient contained). The following picture shows the barrier documented in Reach 4.


Keete Inlet
Numbered reaches mapped by Hydaburg Cooperative Association
Keete Inlet
Unnamed Stream 6
July 11, 2013
Legend
Fish Traps
Coho Salmon
Dolly Varden
Rainbow Trout
No Fish
N
216
Reach 1
623
Reach 2
626
Reach 3
651
657
Reach 7
633
Barrier
Reach 4
Barrier
Reach 5
644
Reach 6
647
648
0
0.075
0.15
0.3 Miles
Keete Inlet
N
0
1.25
2.5
5 Miles
Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO,

Date: 1/9/2014

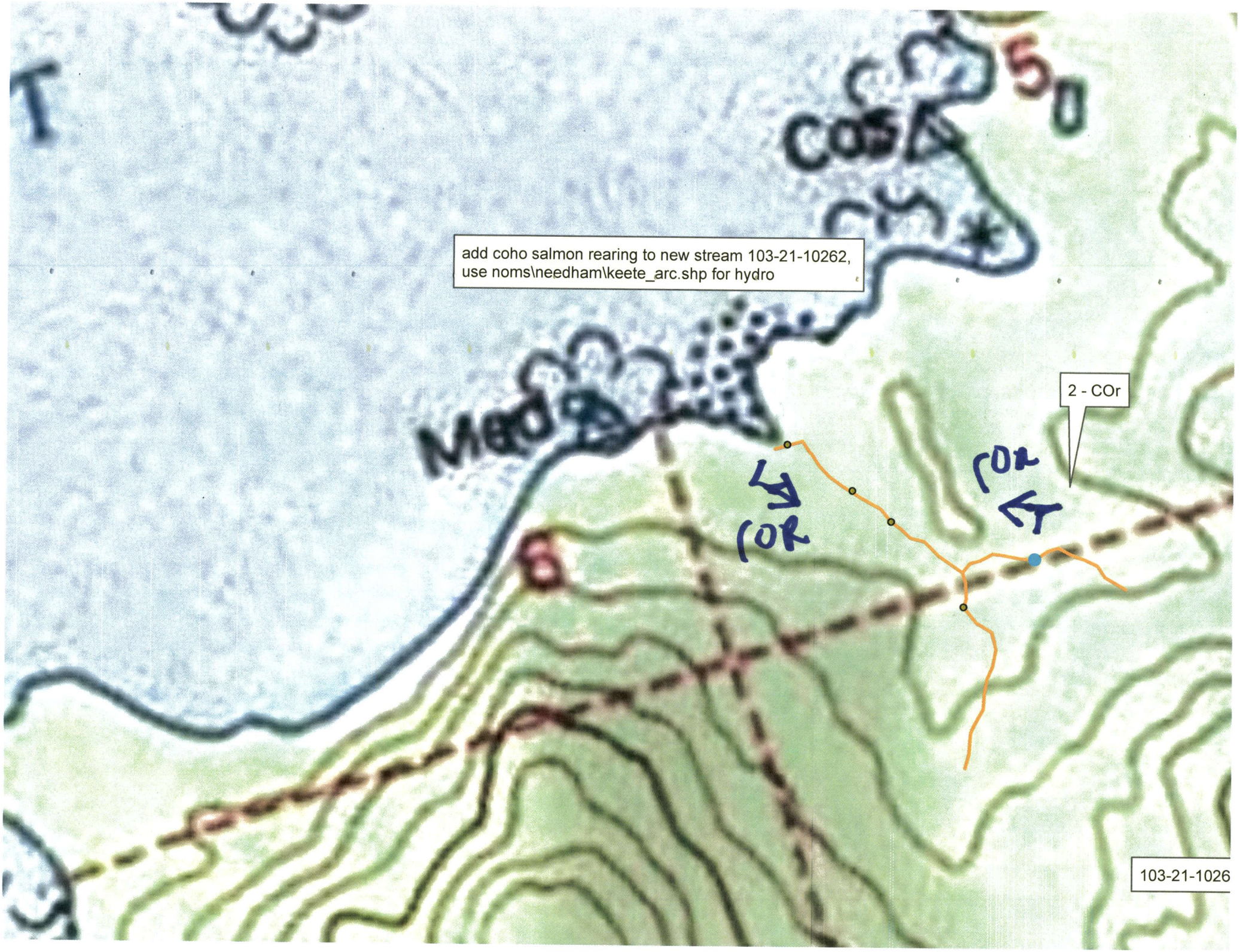
ADF&G permit no. SF2013-208

Summary report of fish collection activity.

The area biologist was contacted on: 3:07pm 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)
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	80	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	133	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	136	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	133	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	86	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	77	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	119	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	112	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	95	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	94	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	101	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	83	fork	measured and released
216	55.04418503	-132.496276	WGS84	GPS	Keete	6/18/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	95	fork	measured and released
623	55.04318699	-132.494995	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	132	fork	measured and released
623	55.04318699	-132.494995	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	132	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	126	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	91	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	131	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	92	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	132	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	127	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	77	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	82	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	127	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	90	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	90	fork	measured and released
626	55.04253999	-132.494255	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	82	fork	measured and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	cutthroat trout	juvenile	155	fork	measured and released

633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	cutthroat trout	juvenile			ID'ed and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	80	fork	measured and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	110	fork	measured and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	90	fork	measured and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	110	fork	measured and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	80	fork	measured and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	90	fork	measured and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	75	fork	measured and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	90	fork	measured and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	86	fork	measured and released
633	55.04093402	-132.493109	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	sculpin-unspecified	juvenile	67	fork	measured and released
657	55.04129503	-132.490895	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	80	fork	measured and released
657	55.04129503	-132.490895	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	coho salmon	juvenile	72	fork	measured and released
648	55.03829699	-132.494319	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	no fish collected or observed				
647	55.03845197	-132.494655	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	no fish collected or observed				
644	55.03904901	-132.493983	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	no fish collected or observed				
651	55.04155302	-132.492578	WGS84	GPS	Keete	7/11/2013	Tony Sanderson	Minnow Trap	no fish collected or observed				


add coho salmon rearing to new stream 103-21-10262,
use noms\needham\keete_arc.shp for hydro
2 - COr
COR
COR
103-21-1026