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: 103-21-10220 -2040

Name of Waterway: Keete Inlet Unnamed Stream 3

USGS Name | Local Name

x Addition | Deletion | Correction | Backup Information

For Office Use

| | | | |
|---|---|---|---|
| Nomination # | 140037 | [signature] Fisheries Scientist | 4/25/14 Date |
| Revision Year: | 2015 | [signature] Habitat Operations Manager | 4/25/14 Date |
| Revision to: | Atlas ___ Catalog ___ Both x | [signature] AWC Project Biologist | 3/24/14 Date |
| Revision Code: | C-9, B-2, A-2 | [signature] Cartographer | 5/20/14 Date |

OBSERVATION INFORMATION

| Species | Date(s) Observed | Spawning | Rearing | Present | Anadromous |
|---|---|---|---|---|---|
| Coho salmon | July 18, 2013 | | X | | X |
| Dolly Varden | July 18, 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.

Update hydrography, reposition upper pt & add coho salmon
Add - new stream 103-21-10220-2040 Ready to stream w/coho salmon rearing

Name of Observer (please print): Tony Sanderson

Signature: [signature] 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.

ALASKA DEPT. OF FISH & GAME

Signature of Area Biologist: _____ Date: JAN 10 2014 Revision

02/08

**Supplemental information for Keete Inlet Stream 3**

Eight baited minnow traps were soaked for 2-4 hours in Stream 3 in Keete Inlet on July 18, 2013. The attached figure shows the trap locations. Stream 3 in Keete Inlet is listed in the Anadromous Waters Catalog (102-31-10220) for the presence of coho and pink salmon. This current nomination is to include the rearing of coho 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.

Stream mapping and survey data was collected by the Hydaburg Cooperative Association Stream Survey crew for Stream 3 below the lake in Keete Inlet on July 18, 2013. Data was taken on seven reaches (reach numbers in the tables correspond to a master dataset; see attached figure for locations). Reaches 1-6 were surveyed as part of the mainstem to the stream, and Reach 7 is a tributary. The stream survey data are in the following tables:

| | **Reach 1** | **Reach 2** | **Reach 3** | **Reach 4** |
|---|---|---|---|---|
| **Average stream gradient** | 1.3 | 6.55 | 3.05 | 9.6 |
| **Average bankfull width** | 9.8 | 7.9 | 11.4 | 3.3 |
| **Average channel bed width** | 6.76 | 6.6 | 6.93 | 4 |
| **Average incision depth** | 0.74 | 0.46 | 1.3 | 1.5 |
| **Bank composition** | Organic | Mixed Alluvial/Bedrock | Organic | Bedrock |
| **Dominant substrate** | Small cobble | Bedrock | Very course gravel | Bedrock |
| **Sub-dominate substrate** | Very course gravel and Large cobble | Large and small boulder | Small cobble and course gravel | Large and small boulder |
| **Large wood count** | 169 | 13 | 121 | 17 |
| **Key wood count** | 52 | 8 | 32 | 6 |
| **Macro-pool count** | 44 | 16 | 46 | 12 |

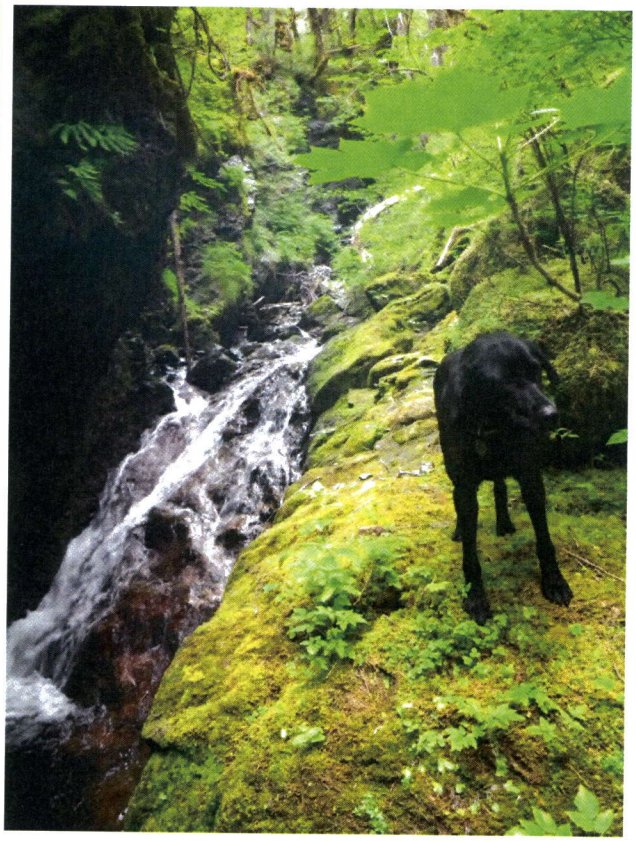
| | **Reach 5** | **Reach 6** | **Reach 7** |
|---|---|---|---|
| **Average stream gradient** | 4.35 | 7.45 | 6.1 |
| **Average bankfull width** | 6.3 | 5.9 | 5.9 |
| **Average channel bed width** | 3.53 | 4.7 | 4.43 |
| **Average incision depth** | 0.95 | 0.75 | 0.61 |
| **Bank composition** | Bedrock | Bedrock | Organic |
| **Dominant substrate** | Bedrock | Small cobble | Small cobble |
| **Sub-dominate substrate** | Large and small boulder | Very course gravel and Large cobble | Large cobble and Very course gravel |
| **Large wood count** | 13 | 43 | 47 |
| **Key wood count** | 4 | 11 | 23 |
| **Macro-pool count** | 24 | 40 | 18 |

Reach 1 was classified as MMS (moderate gradient mixed control). The reach had a large side channel, as well as a tributary (Reach 7 discussed below) coming into it. Reach 2 was classified

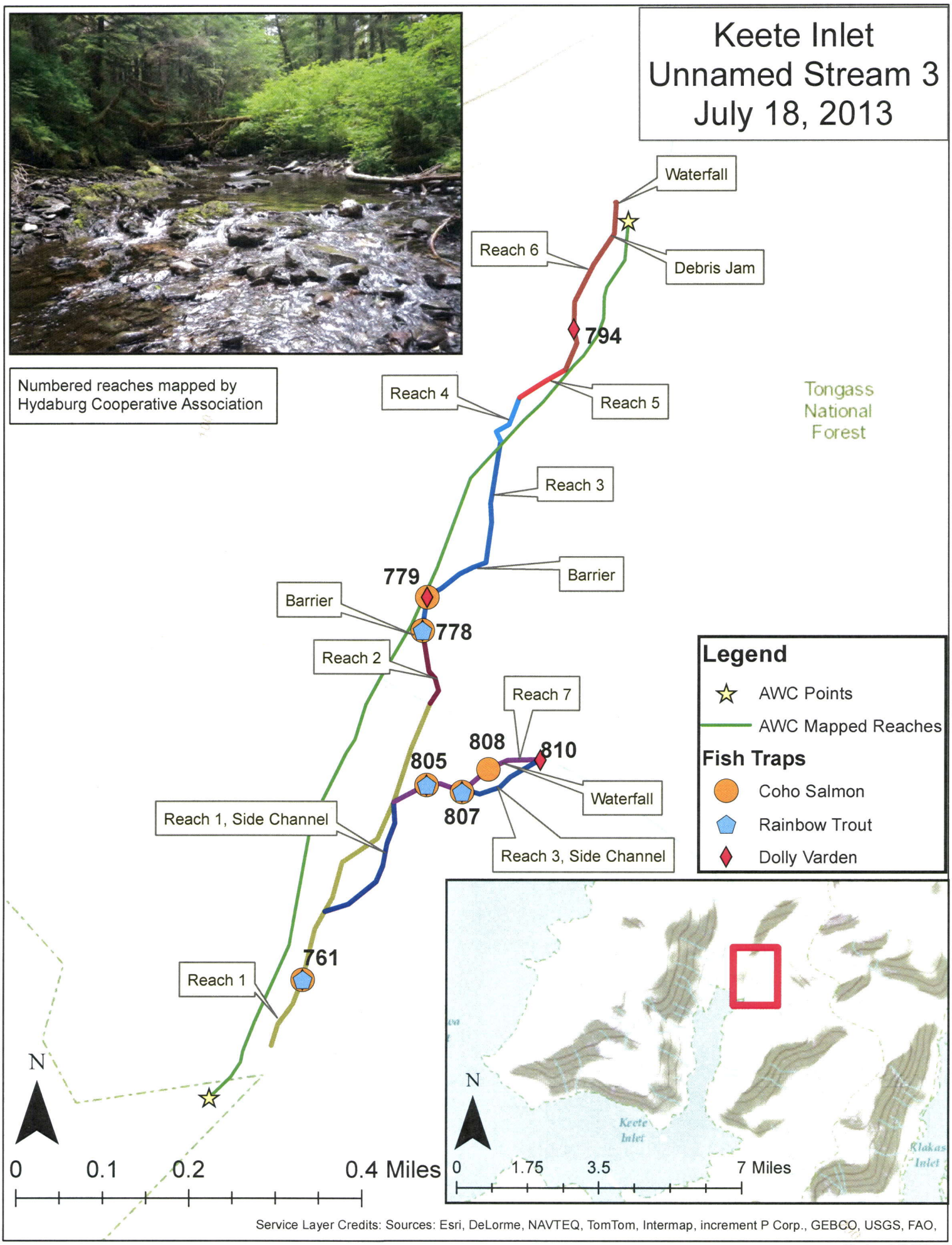
as HCL (high gradient low incision depth contained) with a barrier documented at the top of the reach. The barrier had a height of 1.5 meters, a pool depth of 0.4 meters and a 90% gradient. Trap 779 (see figure) was placed above the barrier and juvenile coho and Dolly Varden were present, therefore the waterfall is not a complete impediment to fish passage. The following photo is the barrier in Reach 2.

Reach 3 was classified as MMM (moderate gradient mixed control medium width). A barrier was documented partially up Reach 3, with a barrier height of 1.3 meters, pool depth of 0.9 meters and 90% gradient. Only one trap was set above this barrier (Trap 794 in reach 6), and it only contained Dolly Varden. The crew continued to map the stream because the barriers in Reach 2 and 3 were not significantly different than one another and anadromous fish were found in between. It is unknown if the barrier in Reach 3 impedes fish passage. The following photo depicts the barrier documented in Reach 3.

Reach 4 was classified as HCM (high gradient moderate incision contained), with no significant features mapped. Reach 5 was classified as MCS (moderate gradient small contained), with no significant features mapped. Reach 6 was HCM (high gradient moderate incision contained). The crew documented a debris jam in the upper portion of the reach. The debris jam had a barrier height of 2 meters, a pool depth of 0.42 meters and barrier gradient of 90%. Fish trapping did not occur above the debris jam, so it is unknown if it is a barrier to fish passage. At the top of the reach, the crew documented a waterfall. The barrier height was 2 meters with a pool depth of 1.4 meters and a gradient of 31.7%. This barrier and the subsequent steepening shown on the topographic map indicate that the top of Reach 6 may be the upper extent of fish habitat in Stream 3 of Keete Inlet. The following photo depicts the debris jam and waterfall in Reach 6.



Reach 7 was the tributary into the mainstem of Stream 3 of Keete Inlet. Reach 7 was classified as MMS (moderate gradient mixed control). Reach 7 contained a small waterfall with a barrier height of 3.5 meters, a pool depth of 0.7 and a 60% gradient. Coho salmon were trapped below the waterfall, and Dolly Varden were trapped above. However, as the map shows, there is also a side channel on Reach 7, which stems off the main channel above the waterfall and reconnects below the waterfall. Therefore, if the waterfall were an impediment to fish passage, fish could move upstream through the side channel given flow is present. Therefore the top of Reach 7 may not be the upper extent of fish habitat on the Tributary to Stream 3. The photo below shows the waterfall on Reach 7.


Keete Inlet
Unnamed Stream 3
July 18, 2013
Numbered reaches mapped by
Hydaburg Cooperative Association
Waterfall
Debris Jam
Reach 6
794
Reach 5
Reach 4
Tongass
National
Forest
Reach 3
Barrier
779
Barrier
778
Reach 2
Reach 7
808
810
805
807
Waterfall
Reach 1, Side Channel
Reach 3, Side Channel
761
Reach 1
Legend
AWC Points
AWC Mapped Reaches
Fish Traps
Coho Salmon
Rainbow Trout
Dolly Varden
N
0
0.1
0.2
0.4 Miles
N
Keete
Inlet
Klakas
Inlet
0
1.75
3.5
7 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 152 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 175 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 98 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 75 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 78 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 115 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 112 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 121 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 112 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 81 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 112 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 70 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 82 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 115 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 82 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 100 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 74 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 112 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 97 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 74 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 90 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 82 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 76 | fork | measured and released |
| 761 | 55.083859 | -132.475161 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 79 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 60 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 55 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 53 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 61 | fork | measured and released |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 55 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 61 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 54 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 55 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 62 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 51 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 49 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 57 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 52 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 47 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 51 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 65 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 57 | fork | measured and released |
| 776 | 55.08674498 | -132.472954 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 45 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | | | ID'ed and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 105 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 101 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 102 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 107 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 133 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 97 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 87 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 83 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 106 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 110 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 52 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 90 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 96 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 96 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 92 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 97 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 81 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 84 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 75 | fork | measured and released |
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 51 | fork | measured and released |

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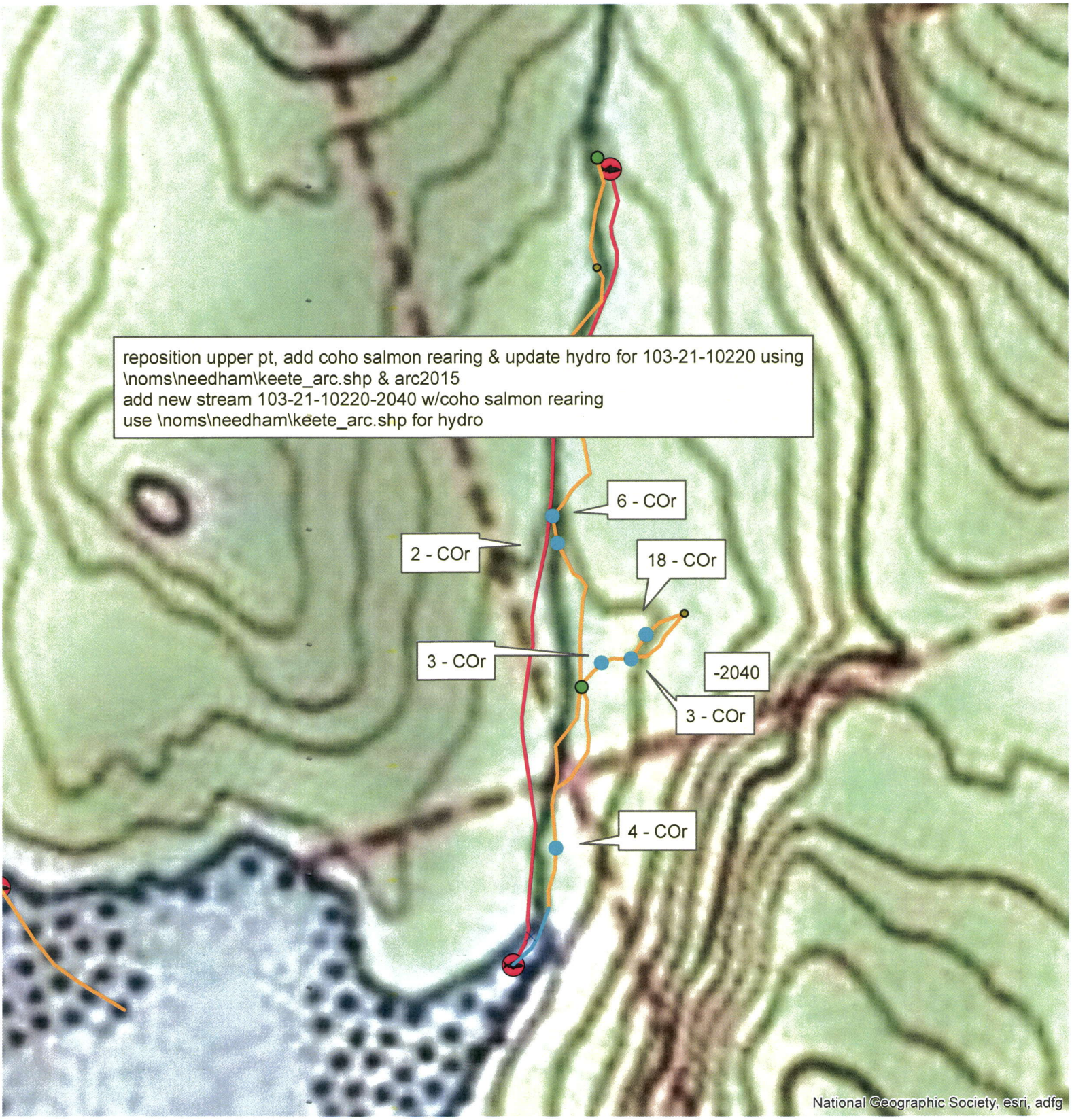
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 778 | 55.08720598 | -132.473166 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 81 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 90 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 100 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 85 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 110 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 80 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 60 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 81 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 87 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 70 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 65 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 75 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 70 | fork | measured and released |
| 779 | 55.08752299 | -132.473087 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 85 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 125 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 100 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 55 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 110 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 75 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 105 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 104 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 84 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 70 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 115 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 95 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 60 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 105 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 90 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 85 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 70 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 85 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 60 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 80 | fork | measured and released |
| 794 | 55.09008399 | -132.470628 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | | | ID'ed and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 180 | fork | measured and released |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 74 | fork | measured and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 75 | fork | measured and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 74 | fork | measured and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 70 | fork | measured and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 80 | fork | measured and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 73 | fork | measured and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 80 | fork | measured and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 77 | fork | measured and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 72 | fork | measured and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 51 | fork | measured and released |
| 805 | 55.08572498 | -132.473093 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | | | ID'ed and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 140 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 113 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 80 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 86 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 92 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 100 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 125 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 122 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 110 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 130 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 72 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 64 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | rainbow trout | juvenile | 77 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 72 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | coho salmon | juvenile | 70 | fork | measured and released |
| 807 | 55.08565701 | -132.4725 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | sculpin-unspecified | juvenile | 72 | fork | measured and released |
| 810 | 55.08596504 | -132.471186 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 83 | fork | measured and released |
| 810 | 55.08596504 | -132.471186 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 75 | fork | measured and released |
| 810 | 55.08596504 | -132.471186 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 95 | fork | measured and released |
| 810 | 55.08596504 | -132.471186 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 70 | fork | measured and released |
| 810 | 55.08596504 | -132.471186 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 54 | fork | measured and released |
| 810 | 55.08596504 | -132.471186 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 71 | fork | measured and released |
| 810 | 55.08596504 | -132.471186 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 69 | fork | measured and released |
| 810 | 55.08596504 | -132.471186 | WGS84 | GPS | Keete | 7/18/2013 | Tony Sanderson | Minnow Trap | Dolly Varden | juvenile | 63 | fork | measured and released |


reposition upper pt, add coho salmon rearing & update hydro for 103-21-10220 using
\noms\needham\keete_arc.shp & arc2015
add new stream 103-21-10220-2040 w/coho salmon rearing
use \noms\needham\keete_arc.shp for hydro
6 - COr
2 - COr
18 - COr
3 - COr
-2040
3 - COr
4 - COr
National Geographic Society, esri, adfg