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

Nomination Form
Anadromous Waters Catalog

M G

Region: Interior

USGS Quad(s): ITM quads: Big Delta (95) A-4 and A-5

Anadromous Waters Catalog Number of Waterway: 334-40-11000-2490-3370, 334-40-11000-2490-3370-~~4030~~ 4036 and -4040

Name of Waterway: Clear Creek (a.k.a. Richardson Clearwater River)

[x] USGS Name [ ] Local Name

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

4036 - 5022
3370 - 4101

For Office Use

| | | | |
|---|---|---|---|
| Nomination # | 140034 | 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 | 2/4/14 Date |
| Revision Code: | A-2 B-2 A-1 C-9 | Cartographer | 4/29/14 Date |

OBSERVATION INFORMATION

| Species | Date(s) Observed | Spawning | Rearing | Present | Anadromous |
|---|---|---|---|---|---|
| coho salmon | 11/07/2013 | Yes | n/a | Yes | [x] |
| | | | | | [ ] |
| Add new stream 334-40-11000-2490-3370-4036 & 4036-5022 w/ Coho salmon spawning | | | | | [x] |
| Extend 3370-4040 w/ coho salmon spawning | | | | | [ ] |
| Revise mouth for 334-40-11000-2490-3370, extend Coho salmon spawning in same | | | | | |

**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:** Coho salmon spawning was observed from an R-44 helicopter during annual upper Tanana River aerial surveys in the following locations.
COs_01 64° 11.003040' N 146° 7.165320' W - 17 adult coho salmon
COs_02 64° 10.230000' N 146° 5.881560' W - 42 adult coho salmon
COs_03 64° 10.290300' N 146° 3.620160' W - 29 adult coho salmon
COs_04 64° 9.326880' N 146° 3.097680' W - 20 adult coho salmon
COs_05 64° 10.480680' N 146° 2.729820' W - 10 adult coho salmon
COs_06 64° 10.275300' N 146° 2.290380' W - 20 adult coho salmon
COs_07 64° 9.843240' N 145° 58.719360' W - 6 adult coho salmon

Names preceding Lat/Long correspond to locations provided on the attached map. Please note coho salmon were observed spawning throughout all the surveyed forks and much of the mainstem. The above waypoints are for the larger concentrations and furthest extent of observed spawning. Total coho salmon counts by tributary are in attached AYK Salmon Escapement Observations form.

Name of Observer (please print): Andrew Padilla
Signature: Andrew Padilla
Date: 12/06/2013
Agency: Alaska Department of Fish and Game- CF
Address: 1300 College Road
Fairbanks, Alaska 99701

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: Bonnie M Baker Date 2/6/13 Revision

02/08

E-MAILED
AJP 12-11-13
COPY

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

Nomination Form
Anadromous Waters Catalog

Region: Interior

USGS Quad(s): ITM quads: Big Delta (95) A-4 and A-5

Anadromous Waters Catalog Number of Waterway: 334-40-11000-2490-3370, 334-40-11000-2490-3370-4030 and -4040

Name of Waterway: Clear Creek (a.k.a. Richardson Clearwater River)

☒ USGS Name ☐ Local Name

☒ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

| | | |
|---|---|---|
| Nomination # _____ | _____ Fisheries Scientist | _____ Date |
| Revision Year: _____ | _____ Habitat Operations Manager | _____ Date |
| Revision to: Atlas _____ Catalog _____ Both _____ | _____ AWC Project Biologist | _____ Date |
| Revision Code: _____ | _____ Cartographer | _____ Date |

OBSERVATION INFORMATION

| Species | Date(s) Observed | Spawning | Rearing | Present | Anadromous |
|---|---|---|---|---|---|
| coho salmon | 11/07/2013 | Yes | n/a | Yes | 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:** Coho salmon spawning was observed from an R-44 helicopter during annual upper Tanana River aerial surveys in the following locations:

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Names preceding Lat/Long correspond to locations provided on the attached map. Please note coho salmon were observed spawning throughout all the surveyed forks and much of the mainstem. The above waypoints are for the larger concentrations and furthest extent of observed spawning. Total coho salmon counts by tributary are in attached AYK Salmon Escapement Observations form.

Name of Observer (please print): Andrew Padilla
Signature: Andrew Padilla
Date: 12/06/2013
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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: Bonnie M Baker Date 12/6/13 Revision

02/08

## Johnson, J D (DFG)

**From:** Padilla, Andrew J (DFG)
**Sent:** Wednesday, December 11, 2013 10:35 AM
**To:** Johnson, J D (DFG)
**Cc:** Borba, Bonnie M (DFG); Durst, James D (DFG); Brase, Audra L (DFG)
**Subject:** AWC nominations-Interior
**Attachments:** RCR_COsRed_docs_final.pdf; RCR_COsAdd_docs_final.pdf; Kiana_COsAdd_docs_final.pdf

**Categories:** ready_to_do_something

Good Morning Jay,

I understand the 2013 AWC nomination period is closed however I have a few late season nominations. I flew the part of the upper Tanana River in November and observed undocumented coho spawning locations in the Clear River (aka Richardson Clearwater River) and Kiana River drainages. In addition, I have nominated a coho salmon spawning reduction for the SW Fork of Clear Creek. I have attached copies of the AWC nomination forms and all supporting documentation. I sent a hard copy as well this afternoon.

Coho salmon spawning additions
Unnamed Tributary of Kiana Creek: 334-40-11000-2490-3362-4022-XX
Clear Creek and tributaries: 334-40-11000-2490-3370, 334-40-11000-2490-3370-4030 and -4040

Coho salmon spawning reduction
Clear Creek tributary (SW Fork): 334-40-11000-2490-3370-4030

Please let me know if you need further information or documentation. Thank you for your time.

PS Would it possible in the future to have a list of AWC changes for the interior, western, and arctic emailed to area biologists (CF,HAB, SF) annually after the maps are updated? It would be great to see highlights annually as we are generally unaware of this changes otherwise. Thanks again.

Cheers,
Andy

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Andy Padilla
Dept. of Fish and Game

# A -Y - K SALMON ESCAPEMENT OBSERVATIONS

| Latitude (North) | Longitude (West) | Month - Day - Year | Stream/River Name | Drainage |
|---|---|---|---|---|
| Database Use Only | Database Use Only | 11/7/2013 | Richardson Clearwater River | Tanana/Yukon |

| Index Areas | Live Kings | King Carcass | King Redds | Live Chum | Chum Carcass | Live Pink | Pink Carcass | Live Sockeye | Sockeye Carcass | Live Coho | Coho Carcass |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | | | | 130 | 0 | | | | | 574 | 73 |
| 101 | | | | 130 | 0 | | | | | 187 | 54 |
| 102 | | | | 0 | 0 | | | | | 64 | 0 |
| 103 | | | | 0 | 0 | | | | | 60 | 0 |
| 104 | | | | 0 | 0 | | | | | 15 | 6 |
| 105 | | | | 0 | 0 | | | | | 81 | 2 |
| 106 | | | | 0 | 0 | | | | | 80 | 0 |
| 107 | | | | 0 | 0 | | | | | 77 | 11 |
| 108 | | | | 0 | 0 | | | | | 10 | 0 |
| 109 | | | | | | | | | | | |
| 110 | | | | | | | | | | | |
| 111 | | | | | | | | | | | |
| 112 | | | | | | | | | | | |

| Observer (Initials) | Survey Method | Wind | Weather | Water | Visibility | Bottom | Time | Distance Surveyed | Spawn Stage | Rating | Observing Agency |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AJP | 7 | 1 | 1 | 2 | 2 | 2 | 1 | | 1 | 2 | ADF&G |

Comments (1): 101: Mainstem mouth to Southwest Fork, 102: Mainstem slough near Southwest Fork, 103: Mainstem from Southwest Fork to Middle Fork 104: Mainstem from Middle Fork to Southeast Fork 105: Mainstem from Southeast Fork to headwaters, 106: Middle Fork, 107: Southeast Fork 108: Northeast Fork. Observer: Andy Padilla. Pilot: Rick Swisher w/ Quicksilver Air. R-44 helicopter.

Comments (2):101: Pan ice in lower end of mainstem from the first cabin to the mouth, bottom clear. 102: Clear visibility and bottom no ice. AWC extension. Some area with fallen trees 103: Good conditions. Areas of fallen trees. 104: Good conditions. 105: a few beaver dams with fallen trees in river. 106: Good conditions. Middle Fork needs to be added to the AWC.107: Areas of ice at upper end and several beaver dams. Side creek of SE fork had 29 coho spawning- AWC extensions. 108: Northeast fork needs to be added to AWC-10 coho spawning below beaver dam with a few present above dam. Notes: Survey did not include Southwest Fork. Initially during survey it was believed 102 was the Southwest Fork. Upon reviewing GPS track log it was not the SW Fork. However, the upstream extent of water in the SW fork was recorded. 64° 11.021'N, 146° 8.958'W as per Habitat. No water was present upstream this point therefore the SW Fork AWC coho spawning/rearing extent should be reduced.

# A - Y - K SALMON ESCAPEMENT OBSERVATIONS

**Description of Survey Codes**

| Method | |
|---|---|
| F - Float Equipped | 10- Counting Tower |
| 1 - PA-18 Super Cub | 11- Weir |
| 2 - C-185 | 12- Sonar |
| 3 - C-180 | 13- Population Estimate |
| 4 - Helio Courier | 14- Personal Interview |
| 5 - Maule | 15- Literature Review |
| 6 - Other fixed wing | 16- Test Fishing |
| 7 - Helicopter | 17-Swimming or Snorkeling |
| 8 - Boat | |
| 9 - Foot | |

| Wind |
|---|
| 1 - No affect on counting |
| 2 - Slight adverse affects on counting from riffles or turbulence |
| 3 - Moderate adverse affects on counting from riffles or turbulence |
| 4 - Extreme adverse affects on counting from riffles or turbulence |

| Weather |
|---|
| 1 - Clear |
| 2 - Scattered (60% Cloud Cover) |
| 3 - Broken (60% to 90% Cloud Cover) |
| 4 - Overcast (100% Overcast) |

| Water |
|---|
| 1 - Clear, no turbidity or stain affecting counts |
| 2 - Slightly turbid or stained, bottom visible in most areas, deeper pools obscured |
| 3 - Moderately turbid or stained; bottom visible only in gravel bars and shallow areas |
| 4 - Extremely turbid or stained with fish counts not acceptable |

| Time |
|---|
| 1 - No adverse affect on survey |
| 2 - Slight affect on survey |
| 3 - Moderate affect on survey |
| 4 - Extreme affect on survey |

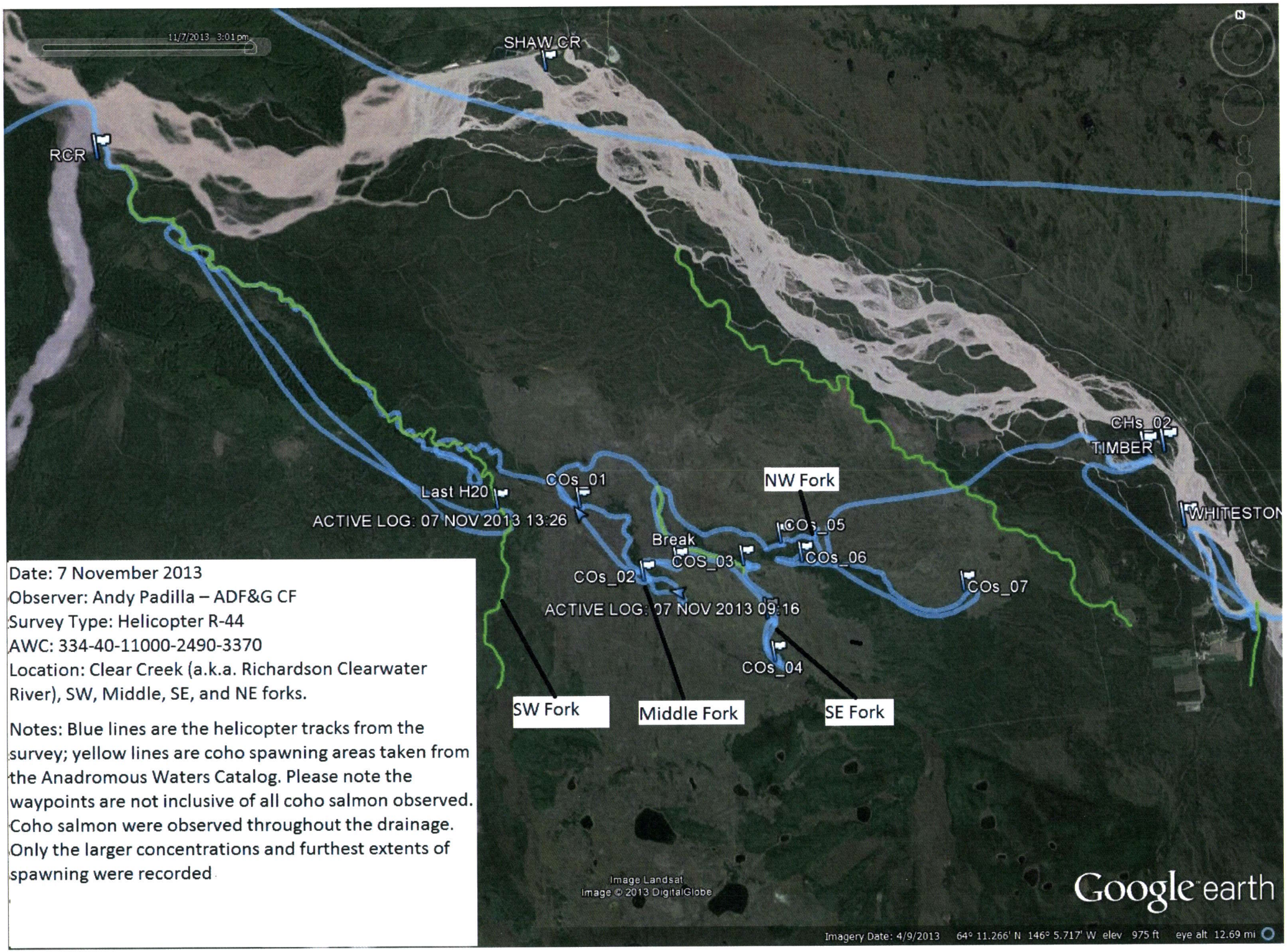
| Visibility |
|---|
| 1 - Good |
| 2 - Fair, fish slightly obscured by glare, shadows, timber, etc. |
| 3 - Poor, fish moderately obscured by glare, shadows, timber, etc. |
| 4 - Unacceptable, fish extremely obscured by elements |

| Spawning Stage |
|---|
| 1 - Before peak spawning |
| 2 - At peak spawning |
| 3 - After peak spawning |

| Bottom |
|---|
| 1 - No adverse affect on survey |
| 2 - Slight adverse affect on survey |
| 3 - Moderate adverse affect on survey |
| 4 - Extreme adverse affect on survey |

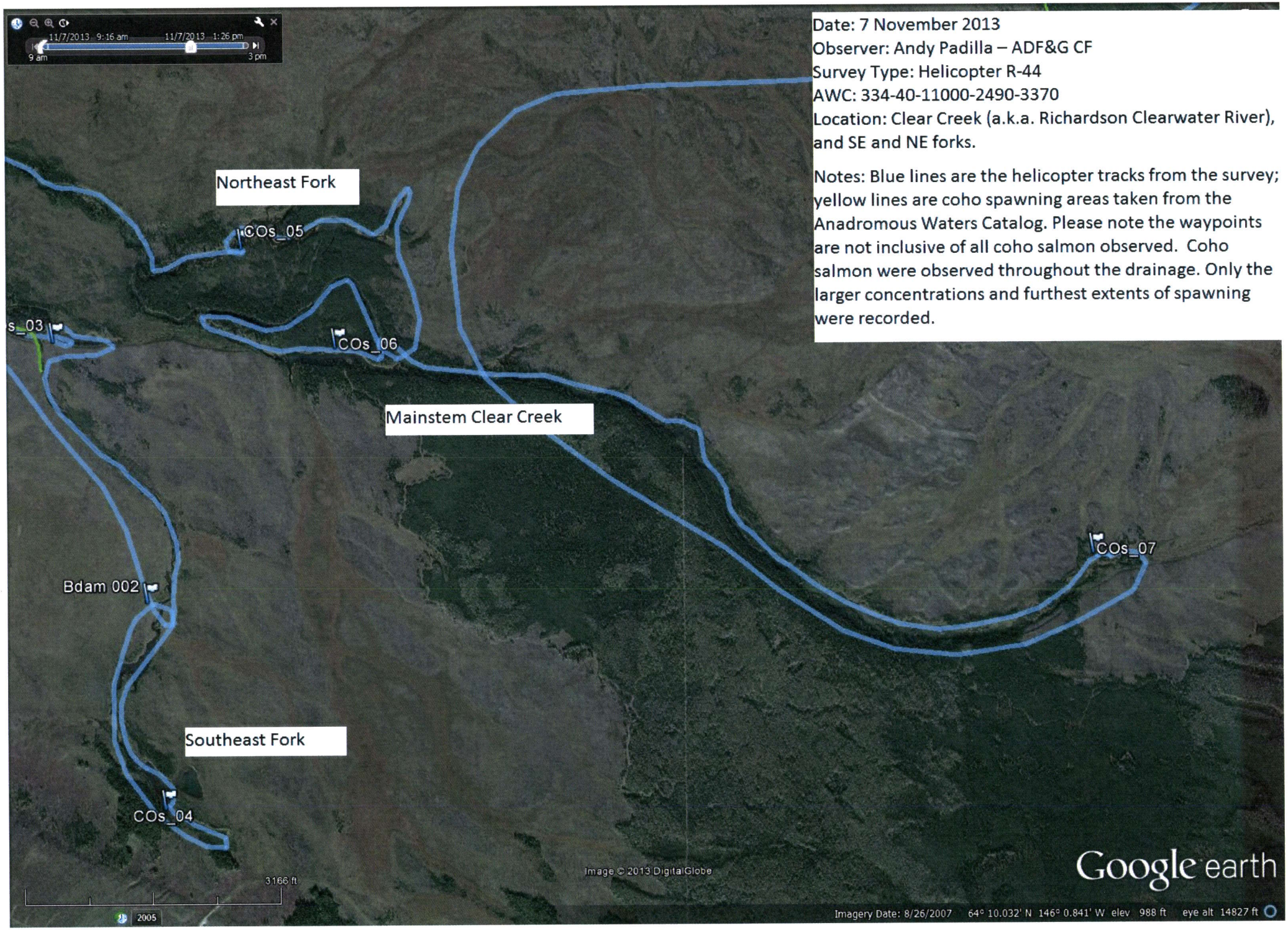
| Rating |
|---|
| 1 - Good |
| 2 - Fair |
| 3 - Poor |
| 4 - Incomplete |
| 5 - Survey too early |
| 6 - Survey too late |

| Notes |
|---|
| Mark 0 for a particular count ONLY if that species was actively looked for. Otherwise, leave blank. |
| In most cases, you will record the predetermined lat/long for that stream on the survey form. |
| In the event of an new stream or tributary, record the lat/long in *degrees/minutes* format i.e. 65º 14.42 |




Date: 7 November 2013
Observer: Andy Padilla – ADF&G CF
Survey Type: Helicopter R-44
AWC: 334-40-11000-2490-3370
Location: Clear Creek (a.k.a. Richardson Clearwater River), SW, Middle, SE, and NE forks.

Notes: Blue lines are the helicopter tracks from the survey; yellow lines are coho spawning areas taken from the Anadromous Waters Catalog. Please note the waypoints are not inclusive of all coho salmon observed. Coho salmon were observed throughout the drainage. Only the larger concentrations and furthest extents of spawning were recorded.




Date: 7 November 2013
Observer: Andy Padilla – ADF&G CF
Survey Type: Helicopter R-44
AWC: 334-40-11000-2490-3370
Location: Clear Creek (a.k.a. Richardson Clearwater River), and SE and NE forks.

Notes: Blue lines are the helicopter tracks from the survey; yellow lines are coho spawning areas taken from the Anadromous Waters Catalog. Please note the waypoints are not inclusive of all coho salmon observed. Coho salmon were observed throughout the drainage. Only the larger concentrations and furthest extents of spawning were recorded.

Date: 7 November 2013
Observer: Andy Padilla – ADF&G CF
Survey Type: Helicopter R-44
AWC: n/a
Position: 64° 10.290300' N 146° 3.620160' W
Waypoint: COs_03

Species: coho salmon (adult)
Stage: spawning
Count: 29 live

Notes: Side creek of SE Fork Clear Creek. Coho salmon observed on redds. Count is for this specific position. Picture taken looking east.

Date: 7 November 2013
Observer: Andy Padilla – ADF&G CF
Survey Type: Helicopter R-44
AWC: n/a
Position: 64° 9.326880' N 146° 3.097680' W
Waypoint: COs_04

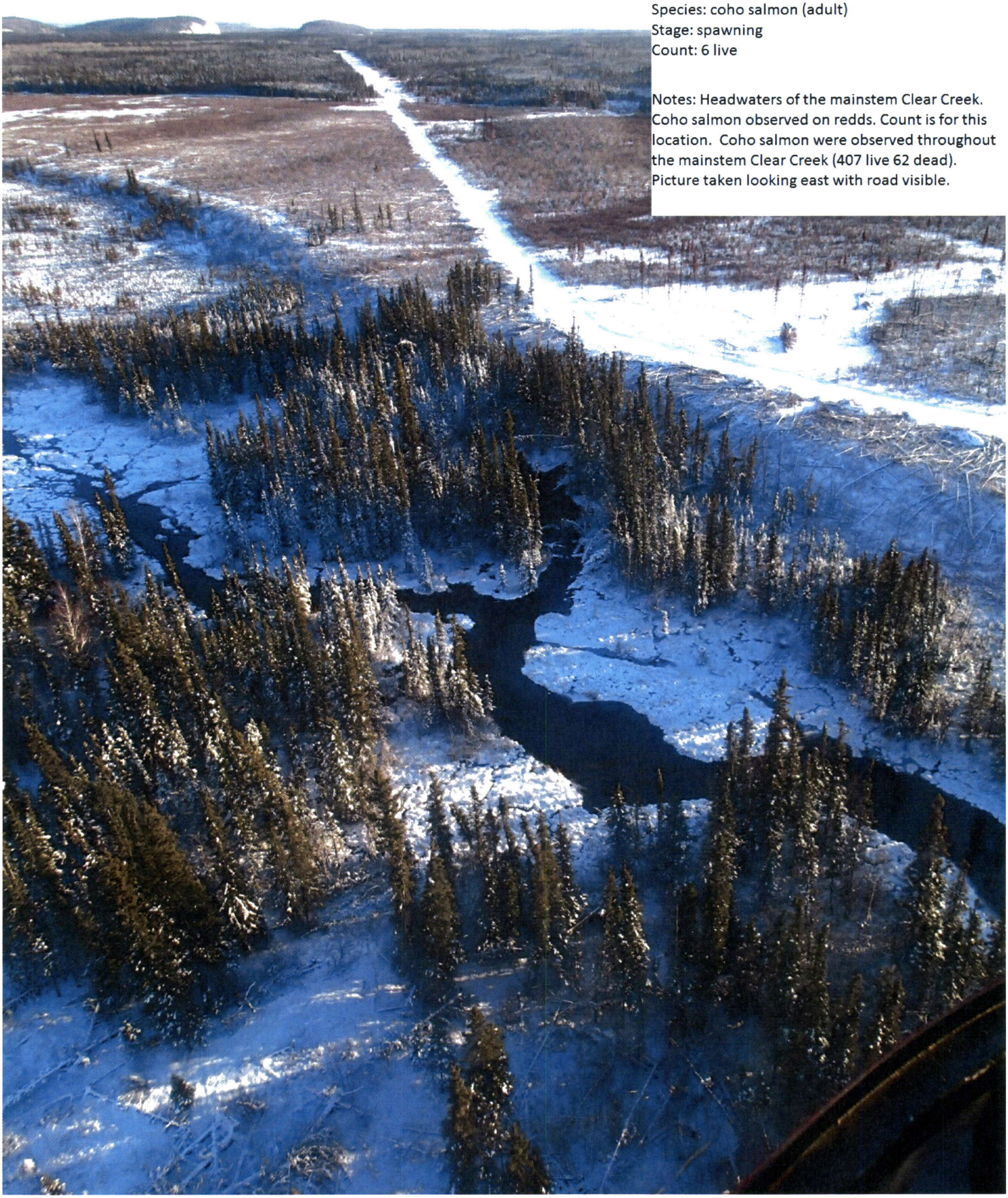
Species: coho salmon (adult)
Stage: spawning
Count: 20 live

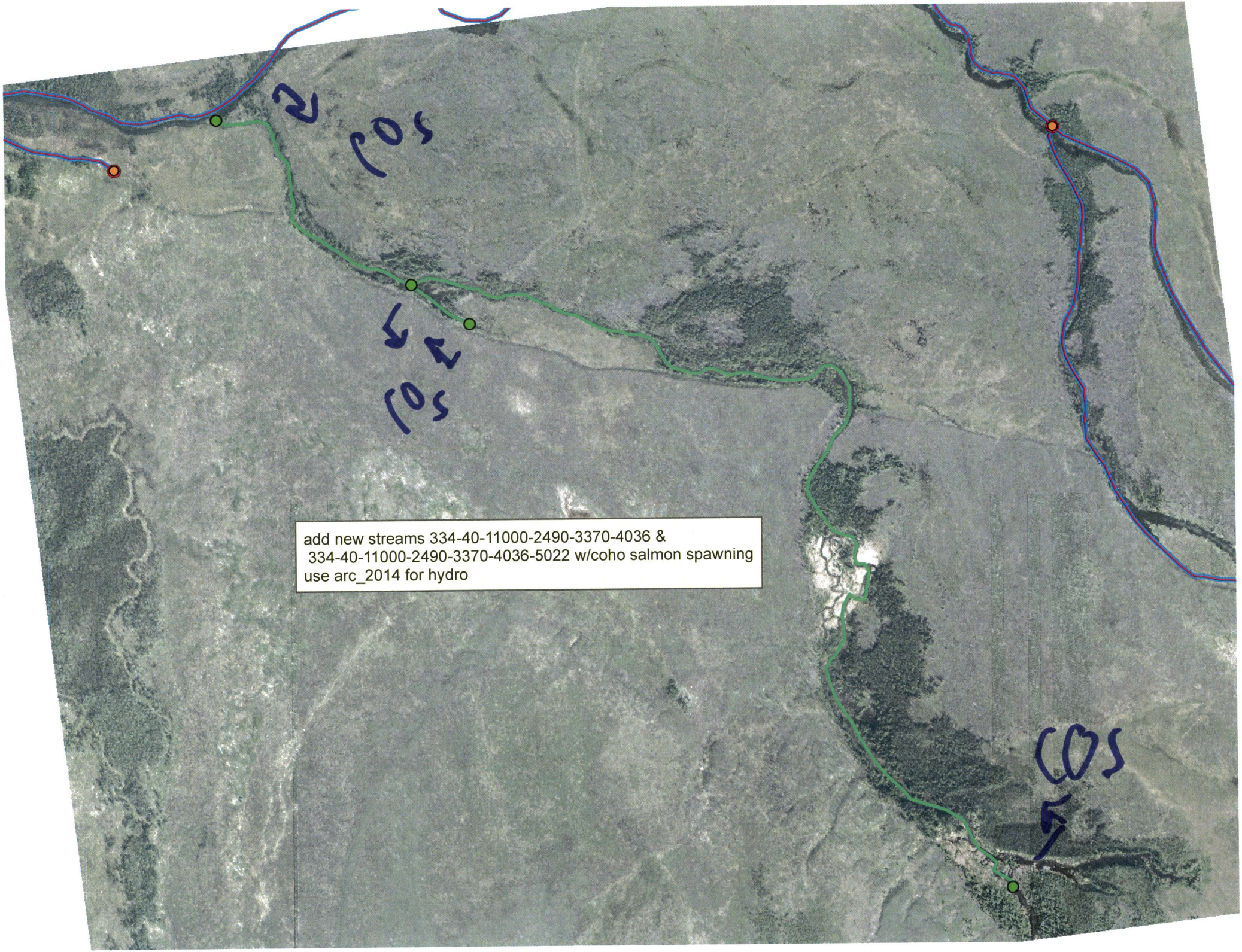
Notes: Upper extent of coho salmon spawning in SE Fork Clear Creek. Count is for this specific position. Coho salmon were observed on redds throughout this tributary/fork (77 live/11 dead). Picture taken looking ESE looking at headwaters with road visible.

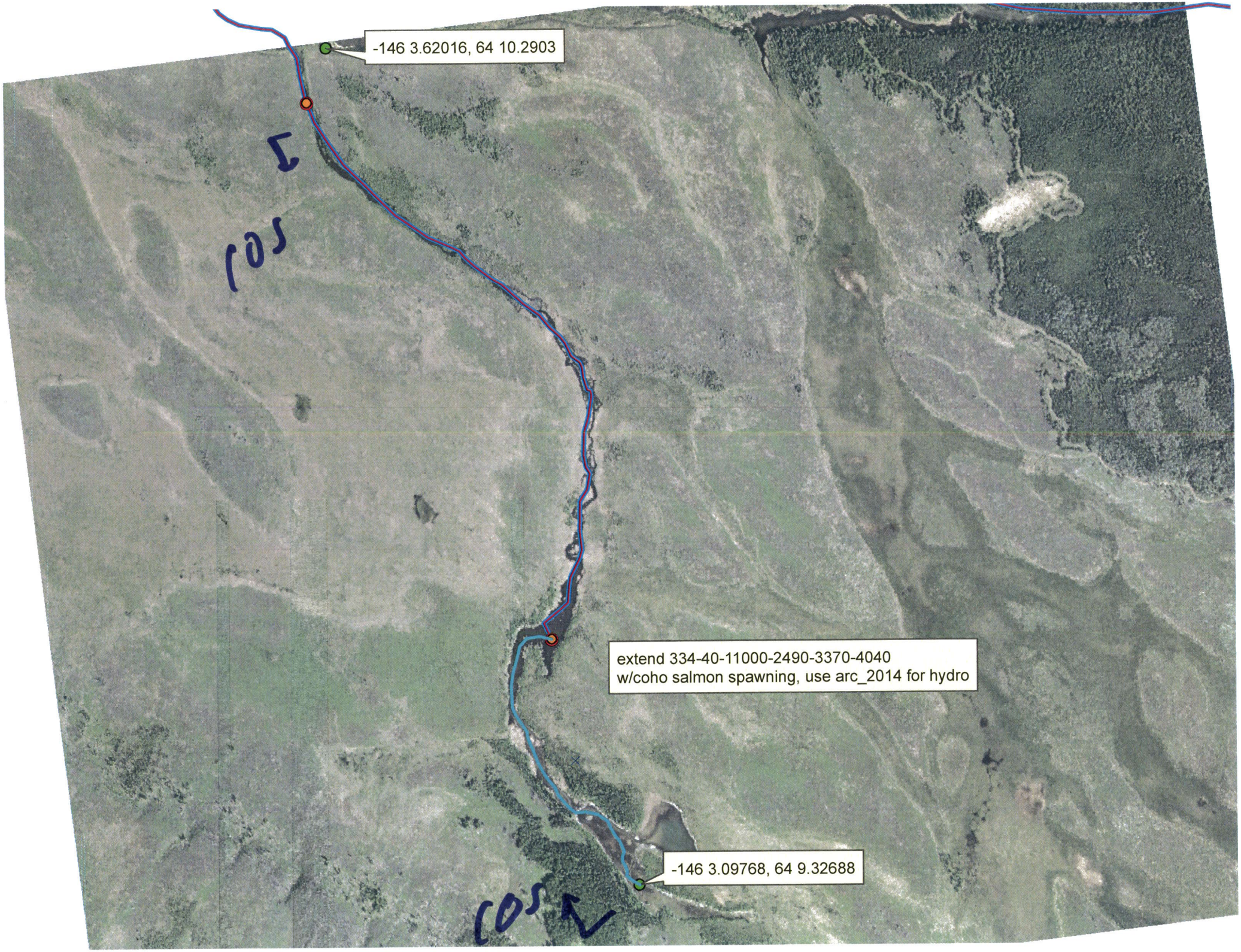
Date: 7 November 2013
Observer: Andy Padilla – ADF&G CF
Survey Type: Helicopter R-44
AWC: 334-40-11000-2490-3370
Position: 64° 9.843240' N 145° 58.719360' W
Waypoint: COs_07

Species: coho salmon (adult)
Stage: spawning
Count: 6 live

Notes: Headwaters of the mainstem Clear Creek. Coho salmon observed on redds. Count is for this location. Coho salmon were observed throughout the mainstem Clear Creek (407 live 62 dead). Picture taken looking east with road visible.




add new streams 334-40-11000-2490-3370-4036 &
334-40-11000-2490-3370-4036-5022 w/coho salmon spawning
use arc_2014 for hydro
COS
COS
COS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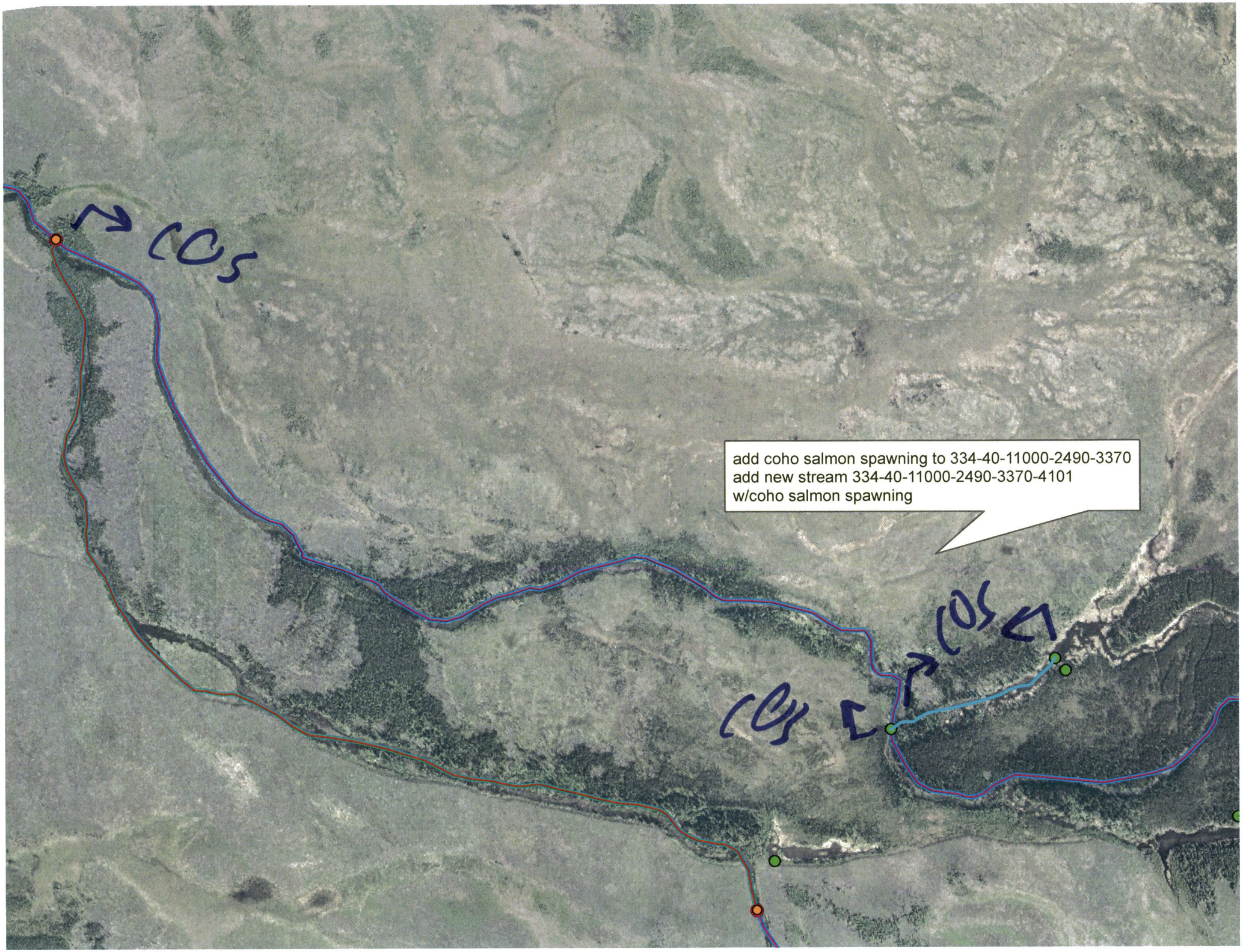
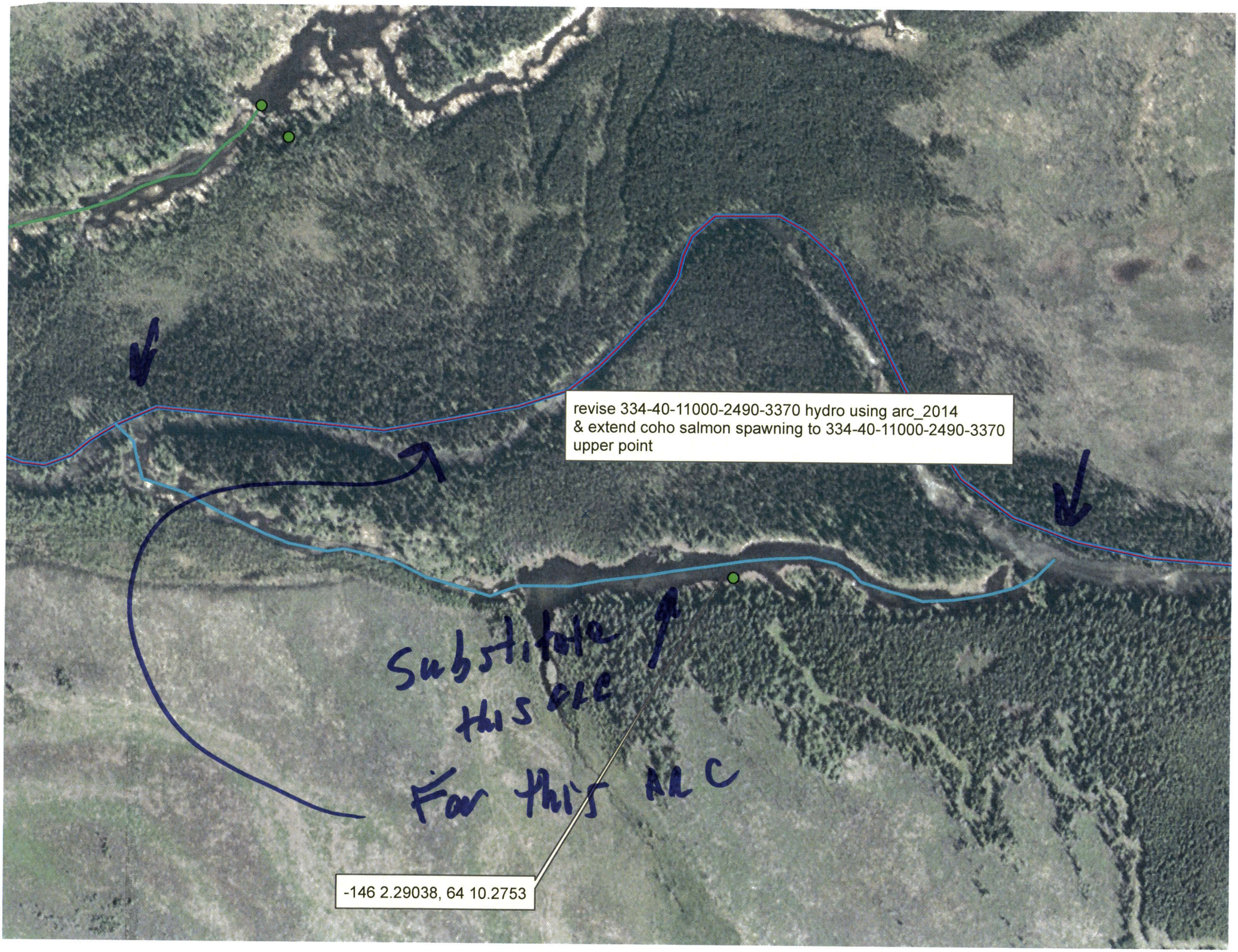
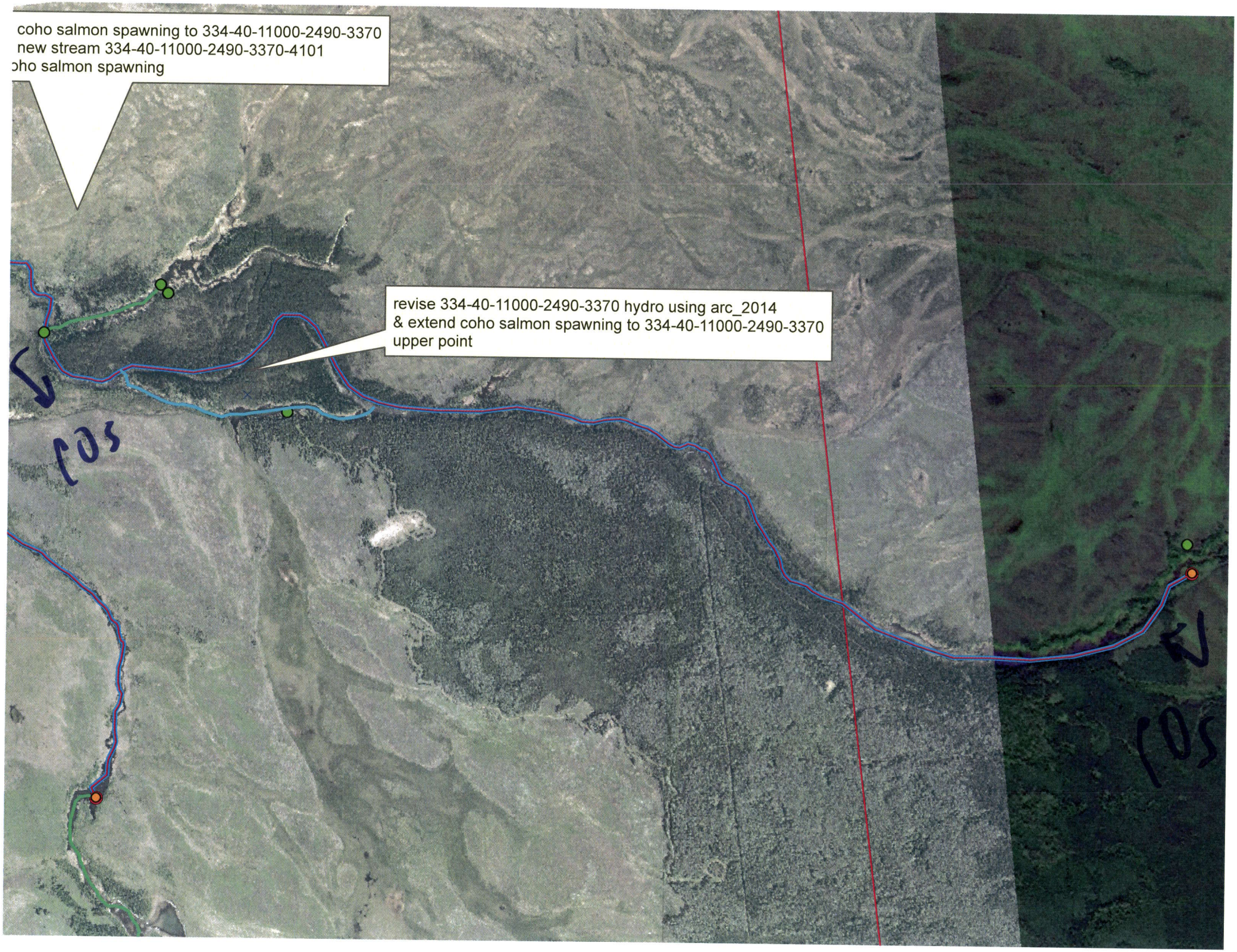
extend 334-40-11000-2490-3370-4040
w/coho salmon spawning, use arc_2014 for hydro
-146 3.09768, 64 9.32688


COS
add coho salmon spawning to 334-40-11000-2490-3370
add new stream 334-40-11000-2490-3370-4101
w/coho salmon spawning
COS
COS


revise 334-40-11000-2490-3370 hydro using arc_2014
& extend coho salmon spawning to 334-40-11000-2490-3370
upper point
Substitute
this arc
for this arc
-146 2.29038, 64 10.2753


coho salmon spawning to 334-40-11000-2490-3370
new stream 334-40-11000-2490-3370-4101
oho salmon spawning
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upper point
S01
S01