



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 A-4

AWC Number of Water Body: 104-20-10100 (-2041)(-2101)(-2102)

Name of Water body: Manhattan Creek  USGS Name  Local Name

Addition  Deletion  Correction  Backup Information

**For Office Use**

Nomination # 150192

Revision Year: 2016

Revision to: Atlas \_\_\_\_\_ Catalog \_\_\_\_\_  
Both

Revision Code: A-2, A-1

James J. Harbouch 8/31/2015  
Fisheries Scientist Date

[Signature] 8/31/15  
Habitat Operations Manager Date

[Signature] \_\_\_\_\_  
AWC Project Biologist Date

TA 9/24/15  
GIS Analyst Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Coho Salmon	May 14-16, 2015		X	X	<input checked="" type="checkbox"/>
Rainbow/Steelhead	May 14-16, 2015		X	X	<input type="checkbox"/>
Dolly Varden	May 14-16, 2015			X	<input type="checkbox"/>
					<input type="checkbox"/>
					<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. For questions or more information contact Ms. Needham at 907-723-4436 or cathy@kaenvironmental.com

Extend 104-20-10100 w/ Coho Salmon Rearing

ALASKA DEPT. OF FISH & GAME

Add new streams - 104-20-10100-2041, 2101, 2102 JUN 12 2015

Name of Observer (please print): Tony Sanderson

Signature: [Signature]

Agency: Hydaburg Cooperative Association

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

W/COHO SALMON REARING

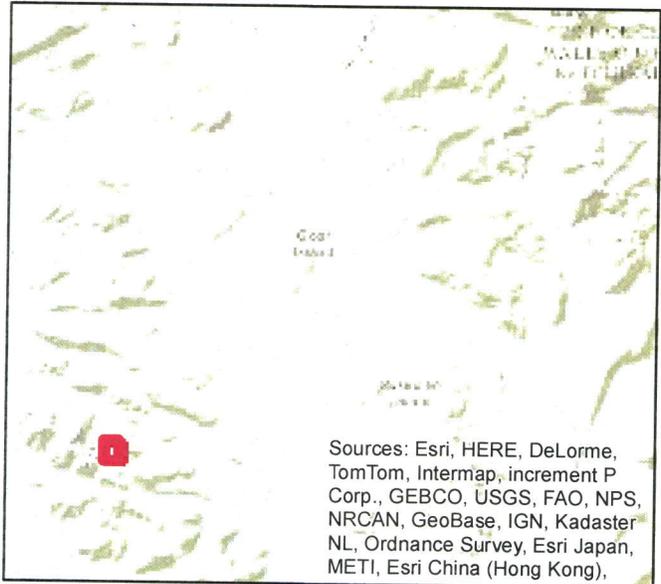
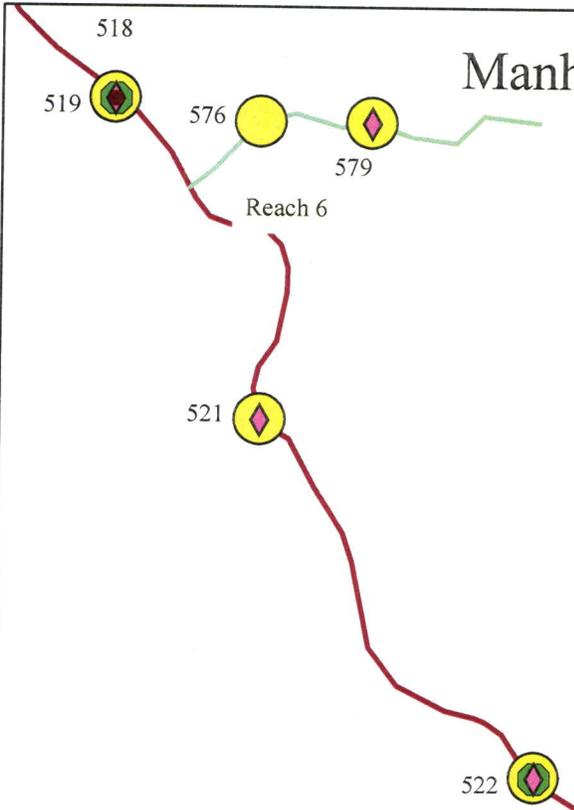
Date: 6-1-15

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

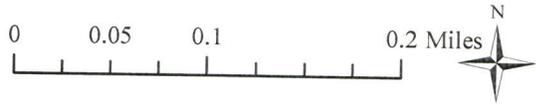
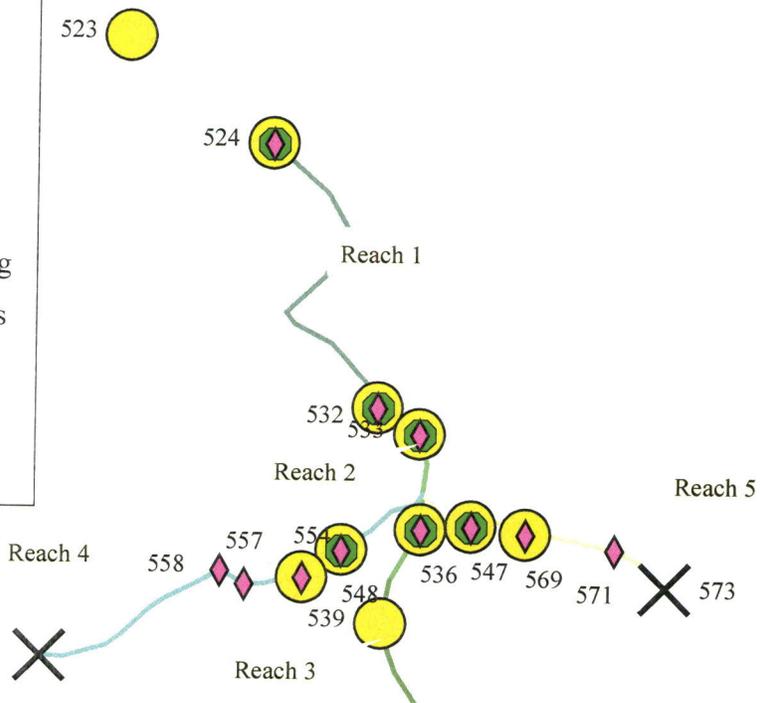
Name of Area Biologist (please print): \_\_\_\_\_

# Manhattan Creek



**Key to Symbols**

- Sculpin
- ◆ Dolly Varden
- Rainbow / Steelhead
- Coho salmon
- ~ Anadromous waters catalog
- ~ Previously mapped streams
- ✱ Beaver dam
- ✕ Waterfall



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

## Supplemental information for Manhattan Creek

Baited minnow traps were used to document the presence of juvenile fish in Manhattan Creek, above Manhattan Lake. Manhattan Creek is listed in the Anadromous Waters Catalog (104-20-10100) for the presence of chum salmon, pink salmon and sockeye salmon. It is also listed for rearing of Coho salmon and steelhead trout. Trapping events occurred May 14-16, 2015. This current nomination is to extend the current extent of the anadromous catalog to additional stream reaches where Coho salmon and rainbow/steelhead trout were observed. Dolly Varden were also observed in all reaches of the creek that were mapped under this project. An ADFG fish trapping permit datasheet is attached to this nomination packet for further details on fish trapping efforts. The attached figure shows 6 new reaches where fish trapping data showed the presence and rearing of Coho salmon.

Stream mapping and survey data was collected by the Hydaburg Cooperative Association Stream Survey crew. Six (6) reaches on Manhattan Creek, above Manhattan Lake and the previous documented anadromous portion of the creek, were mapped (reach numbers in the tables correspond to a master dataset; see attached figure for locations). The stream survey data are in the following table:

	<b>Reach 1</b>	<b>Reach 2</b>	<b>Reach 3</b>
<b>Average stream gradient</b>	1.3	2.18	4.35
<b>Average bankfull width</b>	10.4	5.8	3.9
<b>Average channel bed width</b>	12.4	6.6	3.6
<b>Average incision depth</b>	0.66	0.65	0.74
<b>Bank composition</b>	Organic	Mixed	Mixed
<b>Dominant substrate</b>	Very course gravel	Small cobble	Large cobble
<b>Sub-dominate substrate</b>	Course gravel and Small cobble	Very course gravel and Large cobble	Small cobble and Very course gravel
<b>Large wood count</b>	177	41	16
<b>Key wood count</b>	31	4	1
<b>Macro-pool count</b>	35	9	10

	<b>Reach 4</b>	<b>Reach 5</b>	<b>Reach 6</b>
<b>Average stream gradient</b>	9.63	10.9	2.17
<b>Average bankfull width</b>	2.9	3.5	2.2
<b>Average channel bed width</b>	2.36	4.3	2.4
<b>Average incision depth</b>	0.6	0.8	0.38
<b>Bank composition</b>	Mixed	Mixed	Organic
<b>Dominant substrate</b>	Large cobble	Large boulder	Course gravel
<b>Sub-dominate substrate</b>	Small cobble and Very course gravel	Small boulder and large cobble	Very course gravel and medium gravel
<b>Large wood count</b>	70	85	58
<b>Key wood count</b>	14	21	12
<b>Macro-pool count</b>	42	23	21

Reaches 1 and 2 were classified as MMS (small moderate gradient mixed), Reach 3 was MCS (small moderate gradient contained channel) and Reaches 4 and 5 were classified as HCLw (low incision, high gradient, wetland phase). Reach 6 (lower in the system) was classified as FPS (narrow low gradient flood plain channel). Two barriers, waterfalls, were documented at the end of Reach 4 and Reach 5 (see attached figure). The waterfall on Reach 4 was 2.5 meters high with a 45% gradient (photo 1). The waterfall on Reach 5 was 2.5 meters high with a 45% gradient (photo 2).



Photo 1. Waterfall at the end of Reach 4



Photo 2. Waterfall at the end of Reach 5

**ADF&G permit no. SF201X-XXX (FILL IN)**

**Summary report of fish collection activity.**

**The area biologist was contacted on: TIME/DATE**

Location ID (optional)	Latitude	Longitude	Datum	Coordinate determinatio n method	Name of water body	Date	Observer name (first name, middle initial, last name)	Fish collection method	Species	Life stage	Length (mm) No estimates/r anges	Length method	Disposition (1)
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	62	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	122	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	59	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	114	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	80	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	60	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	100	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	92	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	112	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	115	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	82	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	116	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	62	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	95	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	58	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	70	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	50	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	58	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	55	Fork	measured and released
515	55.08253	-133.13632	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	62	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	72	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	115	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	118	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	sculpin- unspecified	juvenile	135	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	75	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	65	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	62	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	rainbow trout	juvenile	65	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	67	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	82	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	72	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	77	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	61	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	45	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	Dolly Varden	juvenile	74	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	60	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	55	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	44	Fork	measured and released
516	55.08193	-133.13519	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	coho salmon	juvenile	34	Fork	measured and released
517	55.08161	-133.13390	WGS84	GPS	Manhattan	5/14/2015	Tony Sanderson	Minnow Trap	stickleback	juvenile	50	Fork	measured and released

14







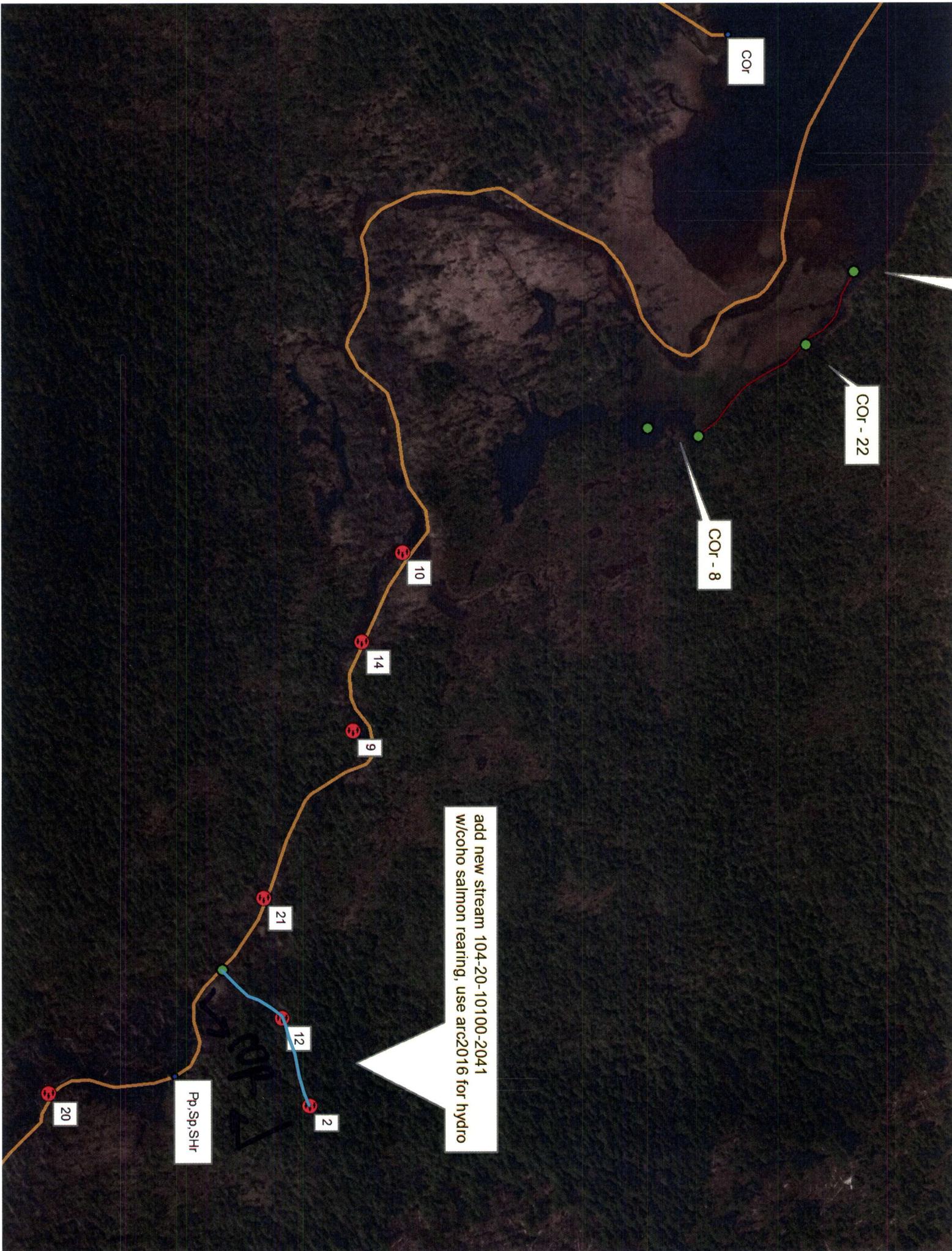












COR

COR - 22

COR - 8

10

14

9

21

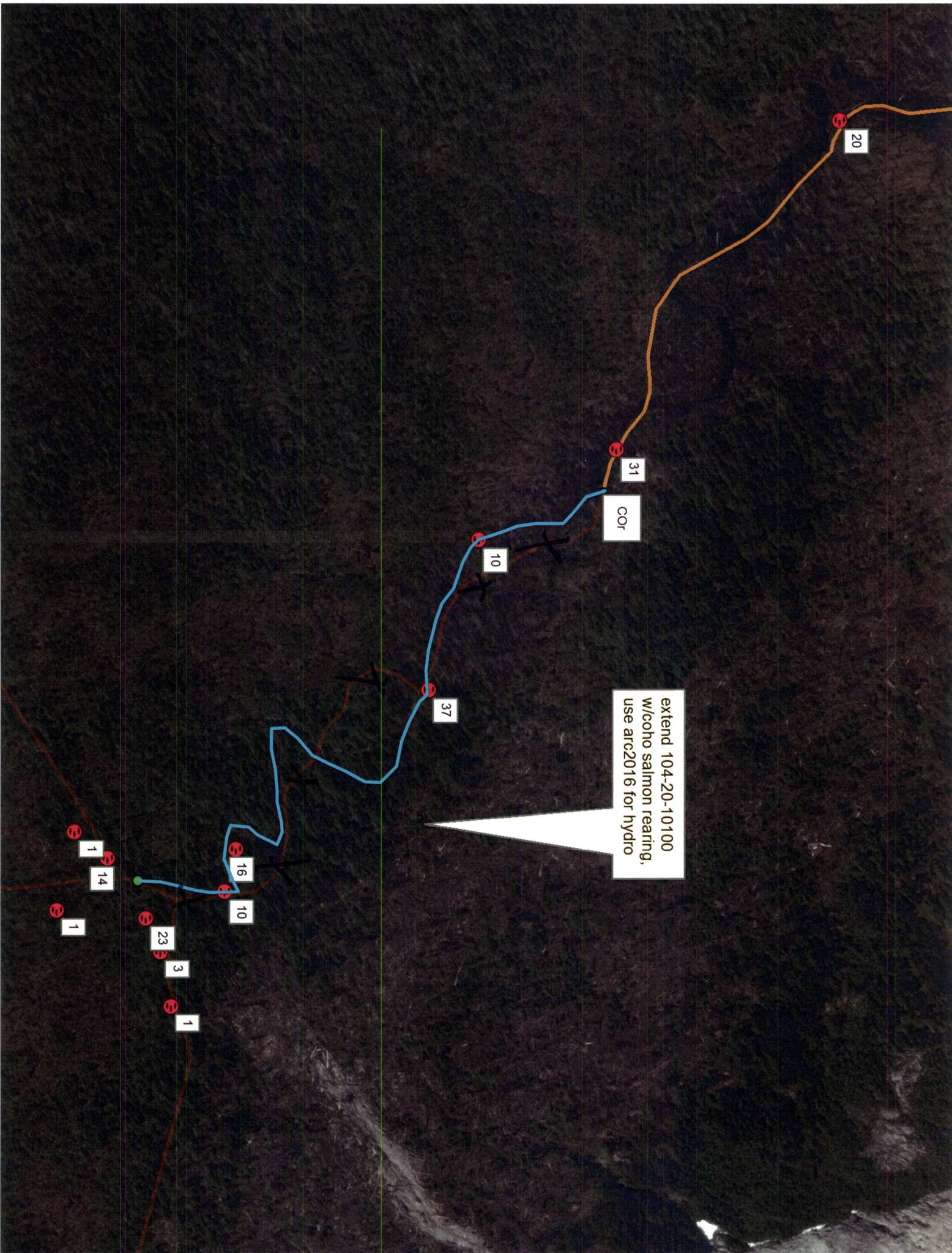
12

2

20

Po, Sp, SHr

add new stream 104-20-10100-2041  
w/coho salmon rearing, use arc2016 for hydro



20

31

COR

10

37

16

10

1

14

1

23

3

1

extend 104-20-10100  
w/coho salmon rearing,  
use arc2016 for hydro

37

extend 104-20-10100  
w/coho salmon rearing,  
use arc2016 for hydro

16

10

23

3

1

add new creeks 104-20-10010-2101 & 104-20-10010-2102  
w/coho salmon rearing, use arc2016 for hydro

*Handwritten: 104-20-10010-2101*

*Handwritten: 104-20-10010-2102*

14

1

1

1

AWC DATABASE CATALOG/ATLAS  
CORRECTION FORM

CORRECTION TO: Atlas \_\_\_\_\_ Catalog X

Region: SEA

Map: listed below

Water Body Number: listed below

Describe Change(s): change names for water bodies listed below

Craig B-2, 102-60-10440-0020, Lake Mary to Mary, Lake

YAKUTAT C-4, 182-70-10100-2031-0010, Lake Redfield to Redfield, Lake

Change Requested By: Johnson 1/6/2015

Date

Drafted/Digitized By: TR 5/11/15

Date

Revision Code: C-2

Nomination Number: 150065

\*\* ATTACH THIS FORM TO EXISTING NOMINATION FORM \*\*