



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

Nomination Form
Anadromous Waters Catalog

JD

Region South Central USGS Quad(s) Anchorage B-8
 Anadromous Waters Catalog Number of Waterway 247-50-10360
 Name of Waterway Goose Creek USGS Name Local Name
 Addition Deletion Correction Backup Information

For Office Use

Nomination # <u>100392</u> Revision Year: <u>2011</u> Revision to: Atlas <input type="checkbox"/> Catalog <input type="checkbox"/> Both <input type="checkbox"/> Revision Code: <u>F-1</u>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; border-bottom: 1px solid black; text-align: center;">Fisheries Scientist</td> <td style="width: 40%; border-bottom: 1px solid black; text-align: center;">Date</td> </tr> <tr> <td style="border-bottom: 1px solid black; text-align: center;"><i>[Signature]</i> Habitat Operations Manager</td> <td style="border-bottom: 1px solid black; text-align: center;"><u>24 APR 10</u> Date</td> </tr> <tr> <td style="border-bottom: 1px solid black; text-align: center;">AWC Project Biologist</td> <td style="border-bottom: 1px solid black; text-align: center;">Date</td> </tr> <tr> <td style="border-bottom: 1px solid black; text-align: center;">Cartographer</td> <td style="border-bottom: 1px solid black; text-align: center;">Date</td> </tr> </table>	Fisheries Scientist	Date	<i>[Signature]</i> Habitat Operations Manager	<u>24 APR 10</u> Date	AWC Project Biologist	Date	Cartographer	Date
Fisheries Scientist	Date								
<i>[Signature]</i> Habitat Operations Manager	<u>24 APR 10</u> Date								
AWC Project Biologist	Date								
Cartographer	Date								

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
chinook	1974-1983	X		X	X
coho salmon	1961-1978				

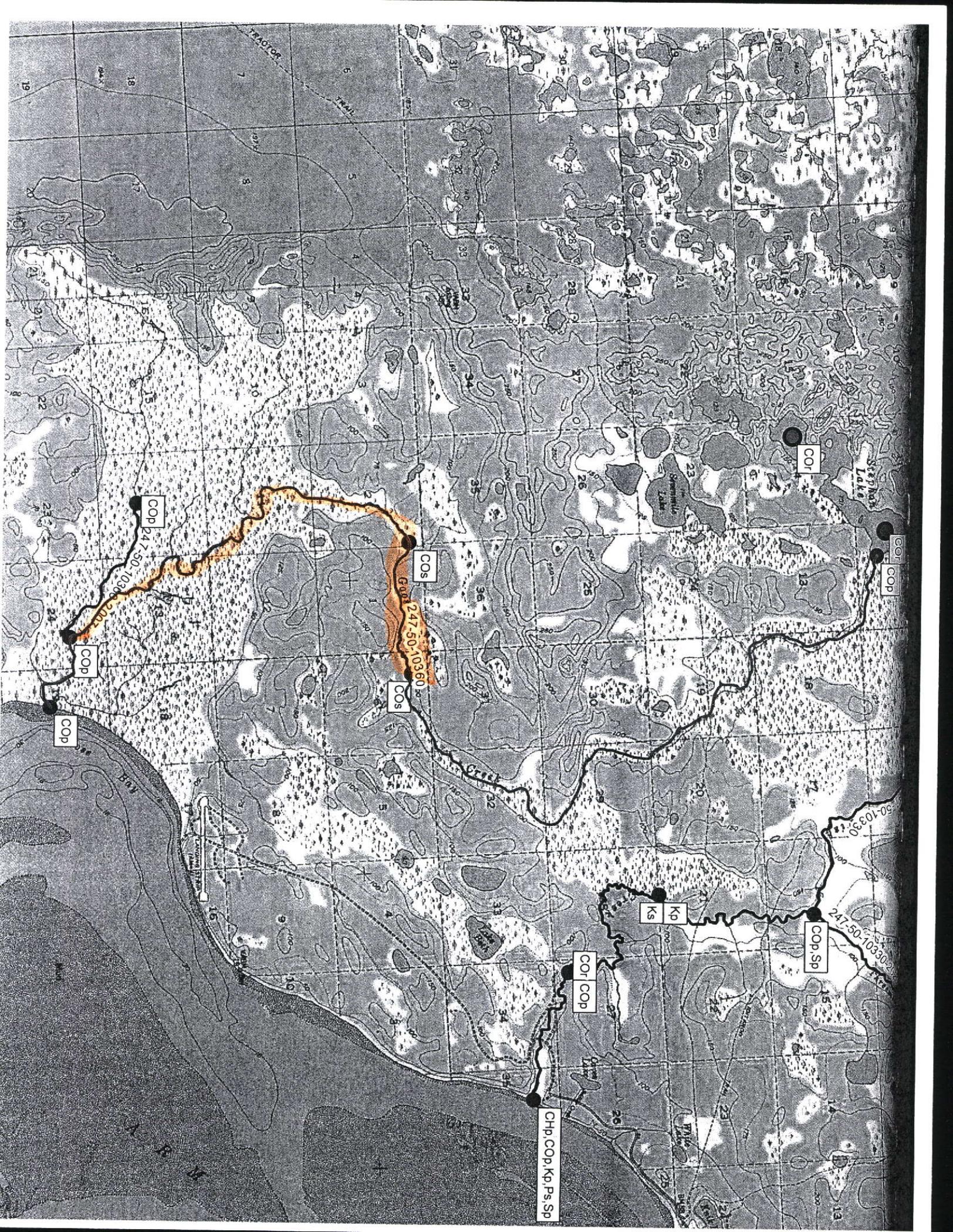
IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing 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:
 Memorandum Attached.
 coho salmon observation Area
 Stephen Lake 247-50-10360-2010

Name of Observer (please print): Nick Logelin
 Signature: Nick Logelin Date: 01-08-10
 Agency: ADF + G Sport Fish
 Address: 1800 Glenn Hwy. Suite # 4
Palmer, AK 99645

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: _____
 02/08



COP

247-50-10360

COS

G001

247-50-10360

COS

COP

COP

COP

COP

K0

Ks

COP Sp

COR COP

Chp, COP, Kp, Ps, Sp

MEMORANDUM

copy Goose Creek
" Sheep Creek
State of Alaska

TO: Dave Daisy
Regional Supervisor
F.R.E.D. Division
Anchorage

DATE: July 22, 1983

FILE NO:

TELEPHONE NO: 267-2225

FROM: ^{DW}
Dave Watsjold
Research Coordinator
Division of Sport Fish
Department of Fish and Game
Anchorage

SUBJECT: Goose - Sheep Creek
Chinook Escapements

Our Palmer staff completed a number of chinook salmon escapement surveys on July 18 and 19. Helicopter surveys were completed on Goose Creek and Sheep Creek with the following results:

Goose Creek (from mouth upstream to dike)	- 477 chinook
Sheep Creek (from mouth upstream to dike)	- 377 chinook
Sheep Creek (from dike upstream to headwaters)	- 568 chinook
TOTAL	1422

Our escapement survey figures represent minimum counts since they are conducted only once each year and do not take into account early arriving fish that spawn and die prior to the count, or late running fish that enter the systems after the count is conducted, and the fact that it is not possible to observe all of the fish present.

Thanks to the low, clear water we are experiencing this year, visibility was excellent and accordingly the counts were very good. The number of chinook observed spawning in Goose Creek is the highest ever observed and Sheep Creek experienced a higher than average escapement.

cc: Redick
Engel
Hauser
Brna

MEMORANDUM

State of Alaska

TO: Dave Daisy
Regional Supervisor
Division of F.R.E.D.
Anchorage

DATE: July 13, 1983

FILE NO:

TELEPHONE NO: 267-2225

FROM: ^{DW} Dave Watsjold
Research Coordinator
Division of Sport Fish
Department of Fish and Game
Anchorage

SUBJECT: Goose Creek - Sheep
Creek Diversion
Project

On July 11, 1983, while inspecting stream crossing sites with Phil Brna along the Willow-Healy Intertie right-of-way, I had the opportunity to land on the newly constructed dike at Sheep and Goose Creeks. The dike appeared to be functioning precisely as intended since the flows were fairly evenly split between Goose Creek and Sheep Creek. It appeared as if Sheep Creek was getting slightly more water, but it is difficult to gage since the gradient on the Sheep Creek side was much less than on the Goose Creek, side and the width of Sheep Creek was much greater which makes it difficult to judge actual flows. I have heard that there is some concern about the velocity in Goose Creek in the vicinity of the dike. In my opinion, there is absolutely no threat to upstream migration of any fish species due to a velocity barrier in this or any other area of Goose Creek.

After reviewing the dike, we proceeded by helicopter down Goose Creek to just upstream of the Parks highway. In this area, I viewed a large number of king salmon either spawning or migrating upstream. Without conducting a detailed survey, I estimated between 500 to 1,000 kings were in this area. Undoubtedly, a portion of these kings will continue up Goose Creek and into the upper Sheep Creek drainage. Our Palmer staff will be conducting escapement counts on both streams in their entirety within the next week if the weather cooperates.

Having been the project biologist for all salmon studies conducted out of the Palmer office from 1970 to 1980, I am very familiar with the streams in the Willow-Talkeetna area. I vividly remember the August 1971 flood which destroyed the existing dike, allowing much of the flow to go down Goose Creek.

It wasn't until 1974, while counting kings in Sheep Creek, that I noticed kings spawning in Goose Creek directly below where the dike used to be. Subsequently, I began counting king salmon in Goose Creek in 1974 and counts have been continual since then. Counts have fluctuated between 13 and 283 since 1974. King salmon in Goose Creek were always difficult to count due to the creation of numerous new channels caused by the increased flows from Sheep Creek. Erosion was continual which caused the waters to be turbid making counting conditions difficult in the middle section of Goose Creek. Most of the kings were observed spawning in the area from the dike downstream for approximately 2 miles.

July 13, 1983

During my July 11 flight on Goose Creek, I observed a stream that is considerably different from previous years. Water clarity was exceptional all the way down Goose Creek. I had never before observed as many king salmon in Goose Creek as I did during that flight, and I had never observed that much spawning activity in the middle section of the stream. Since the dike has been reestablished, it is readily apparent that king salmon will continue to spawn in Goose Creek and will probably continue to use Goose Creek as a migration corridor to the upper Sheep Creek area. I feel that the lower flows in Goose Creek will actually enhance spawning while the increased flows in Sheep Creek will restore numerous spawning areas that had previously dried up.

There is some concern about the low flows that are present in Goose Creek. The low flows being encountered in Goose Creek are not totally the result of dike construction. We are presently encountering a very low water year due to lack of precipitation. I personally have, at this time of year, never seen stream flows in the Willow-Talkeetna area as low as they are today, except perhaps in 1970 when the area was experiencing drought conditions. I believe U.S.G.S. flow stations will substantiate the low water flows.

After reviewing the dike and the streams, I feel that the project turned out to be highly successful and will benefit not only the fish but will likewise benefit the user groups. I do believe it is imperative that regular inspection and maintenance of the dike is necessary if we are to maintain and stabilize fish habitat in both systems.

cc: Redick
Engel
Brna