State of Alaska
Department of Fish and Game
Habitat and Restoration Division

Nomination for Waters Important to Anadromous Fish

Region: SOUTHCENTRAL | USGS Quad: Cordova A-2

Anadromous Water Catalog Number of Waterway: 200-10-10010

Name of Waterway: Arvesta Creek ☑ USGS Name ☐ Local Name

☑ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

Nomination #	01 269		
Revision Year:	2001	Regional Supervisor	Date 11/20/01
Revision to:	Atlas X Catalog ___ Both ___	AWC Project Biologist	Date 11/2/01
Revision Code:	B-1	Drafted	Date 12/5/01

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Coho salmon	09/17/2001		juvenile rearing		☑
Dolly Varden	09/17/2001		juvenile rearing		☐
					☐
					☐
					☐

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: A USDA Forest Servce crew electroshocked this creek on 9/17/2001 to determine the presence of anadromo fish. A road which crosses this creek would be used for the proposed Katalla oil and gas exploratory drilling at a nearby oil fie The stream crossing may or may not need to have additional bridge or culvert work done to accommodate vehicle traffic.

Eighteen juvenile coho salmon and five juvenile Dolly Varden were shocked downstream from the road crossing. Six juvenile coho salmon were shocked above the road crossing.The stream was flagged at the road crossing site and was numbered (#3) for reference later during the project. It is not known if the Dolly Varden are from anadromous stock. The anadromous waters catalog only lists pink salmon in this stream.

The UTM position at the crossing was obtained with a hand held GPS unit: 642112, 6674612.

Name of Observer (please print): Ken Hodges Fisheries Biologist USDA Forest Service

Signature: _____ Date: 09/21/2001

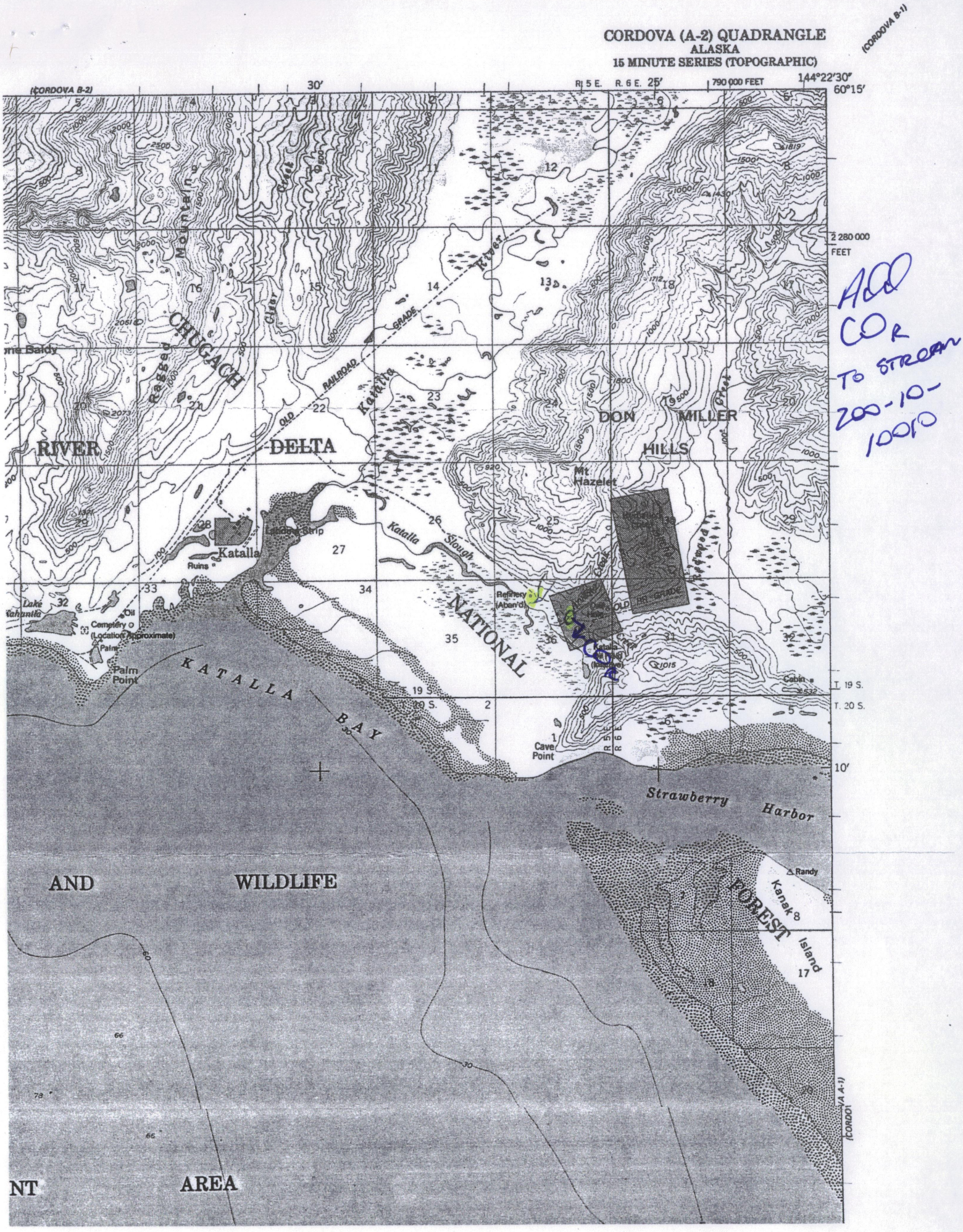
Address: PO Box 280, Cordova, AK 99574

(907) 424-4738 khodges@fs.fed.us

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 Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes per AS 16.05.870.

Signature of Area Biologist: _____

Revision 3/97



Add CO R To stream 200-10-1010

United States Department of Agriculture | Forest Service | Cordova Ranger District | P.O. Box 280 Cordova, Alaska 99574

File Code: 1900 **Date:** September 21, 2001

Subject: Katalla Road, Anadromous Stream Crossings

Cevin Gilleland
Alaska Department of Fish and Game
Habitat and Restoration Division
333 Raspberry Road
Anchorage, AK 99518-1599

Mr. Gilleland:

On September 17, 2001, a Forest Service crew surveyed the streams along the 2.5 mile road from the Katalla River to the proposed exploratory drilling site, and one stream east of the site. The crew electroshocked the streams to determine whether any anadromous fish were present. Coho salmon juveniles were present in two streams crossed by the road. The Anadromous Catalog only lists pink salmon in one of the streams (Arvesta Creek, #3). I have enclosed the completed forms for the updating of the catalog. One stream was not surveyed due to the lack of time. We hope to check this stream at a later date. The enclosed report has the details of the surveys.

There may be several small streams (bankfull widths < 2 ft, bankfull depths < 1 ft) which the crew might not have seen or which might not have had any flow. When I was out there with Dave Ryland I noted more than the 12 streams the crew looked at. I will accompany the crew the next time we are out there to see which streams were missed and whether fish are present.

I also wish to let you know that I talked with Bill Stevens, president of Cassandra Energy Corporation. His company conducted soundings of the Katalla River, and he says that it is deep enough to get a barge up to the existing road. He said that he will not need to build a new road as had been proposed earlier. As you probably know, there are pink salmon spawning areas in the Katalla River downstream from existing road, so any barges to the existing road will have to pass over these areas. I have observed pink salmon spawning there on August 17, 2001 and on numerous occasions in 1989 and 1990. As you mentioned in your previous letter of August 30, 2001, timing restrictions may be required on some activities.

Mr. Stevens also said that he planned to use steel I-beam temporary bridges to span some of the existing stringer bridges and culverts. I wrote him a letter stating that this should be included in his revised Plan of Operations and his applications to your Division for stream crossing permits.

If you have any questions or comment, please feel free to call (907) 424-4738, write at the address above, or e-mail at khodges@fs.fed.us.

Sincerely,

Ken Hodges
Fisheries Biologist, Assistant Project IDT leader

Katalla Road Fish Inventory **17 September 2001**

Matt Kampshoff
Fisheries Technician
Cordova Ranger District
Chugach National Forest

Introduction

In the early 1900s oil was discovered at Katalla, AK approximately 54 miles southeast of Cordova, AK. Low production from the shallow wells and other economic factors have precluded commercial production since 1929. Newly proposed exploratory drilling at Katalla has brought forth a need for more inventories and monitoring of the natural resources in the area. One area of concern is along a 2.5-mile road which runs from the Katalla River to an exploratory drilling site to the east. The road crosses several streams along the way and may require the replacement of bridges and culverts. There is no past record of whether fish inhabit these streams. The Alaska Department of Fish and Game Habitat and Restoration Division regulates road crossings over streams with anadromous fish. We will provide the department with the results of this survey so they can determine what permits, designs, and mitigative measures may be required.

Methods

Three fisheries technicians, Dirk Lang, Matt Kampshoff, and Jennifer Pirtle, from the Cordova Ranger District flew to Katalla September 17, 2001 to inventory streams crossed by the road to the drill site. The inventory was looking for two things: the presence or absence of fish in each stream, and the species of fish in the streams.

We started the inventory at the east end of the road past the drilling rig. One person operated a Smith-Root backpack electro-shocker, one person netted fish, and the other person recorded data. The electro-shocker was set on 300 volts at 6 mhs. We shocked each stream above and below the road crossing for approximately 300 feet each direction or until the stream became unsuitable for fish habitat or passage. At each road crossing we took a GPS position for reference and mapping. Pink flagging was hung at the crossings with the stream number (with number one beginning in the east) except at stream 12 which was not surveyed.

Results

Our findings from this inventory are listed below in Table 1. There were fish in only two out of the 12 streams. Only one stream, Arvesta Creek (#3) which runs along the camp, had fish both above and below the road. Stream #6 had fish 200 ft. below the road in a muskeg meadow, upstream from its confluence with stream #5. Coho salmon (*Oncorhynchus kisutch*) were found in both streams. Arvesta Creek had Dolly Varden

(*Salvelinus malma*) also. Streams number 6 thru 11 have a high gradient (>10%) upstream from the road. Below the road these streams drop down through a steep cascade drop-off (>10%) then braid out into muskeg meadows near Katalla Slough.

Table 1. Findings from electro-shocking inventory. Katalla, AK. 17 September 2001. N/A means not available. The GPS unit was not able to pick up the satellite signals due to tree cover or the hill.

Stream #	UTM	UTM	Dist. Shocked up strm.	Dist. Shocked dwn strm.	Fish Presence up strm.	Fish Presence dwn strm.	Comments
#1	06V0642523	UTM6674591	250 ft.	250 ft.	No	No	Stream is crossed by an old railroad track.
#2	06V0642379	UTM6674579	300 ft.	300 ft.	No	No	Stream disappears into meadow.
#3	06V0642112	UTM6674612	250 ft.	300 ft.	Yes, 5 coho fry and 1 coho parr	Yes, 5 dolly varden fry and 18 coho fry	Arvesta Creek at camp.
#4	06V0641931	UTM6674881	0 ft.	200 ft.	No	No	Stream braids after 200 ft. down stream.
#5	n/a, poor coverage	n/a, poor coverage	100 ft.	400-500 ft.	No	No	Stream braids after 200 ft. down stream, no good channel.
#6	06V0641532	UTM6674931	0 ft.	200 ft.	No	Yes, 7 coho mixed fry and parrs	All fry were down stream close to confluence with stream #5. After 100 ft. above confluence the stream gradient was >10%.
#7	06V0641468	UTM6674896	0 ft.	50 ft.	No	No	After 50 ft. the stream braids out into muskeg.
#8	n/a, poor coverage	n/a, poor coverage	30 ft.	20 ft.	No	No	After 30 ft. up stream, the stream goes subsurface, and 20 ft. down stream it drops down a cliff to >10% gradient. Braids into muskeg 700 ft. down stream.
#9	06V0641306	UTM6675066	100 ft.	30 ft.	No	No	After 100 ft. upstream the gradient went >10%. Down stream it drops into muskeg and becomes braided.
#10	n/a, poor coverage	n/a, poor coverage	0 ft.	50 ft.	No	No	Stream drops into meadow, and becomes a marsh.
#11	n/a, poor coverage	n/a, poor coverage	0 ft.	0 ft.	n/a	n/a	Did not shock due to high gradient upstream >15%.
#12	n/a, poor coverage	n/a, poor coverage	0 ft.	0 ft.	n/a	n/a	Did not shock due to lack of time.

Discussion

From our findings in this electro-shocking inventory there are only two streams with fish along the road. The majority of the streams have a high gradient coming down the mountain then begin to braid as they reach the muskeg meadow near Katalla Slough, so they do not contain good fish habitat for most of their length. Arvesta Creek, which seemed to have a healthy population a coho salmon and Dolly Varden, did have very good habitat, a good mix of pools and riffles, and good spawning gravel.

Stream #5 had a small diameter culvert which was too small to pass the high flows. The culvert was plugged with debris, which caused the water to eat away at the road, and is now flowing completely around the culvert. There is now a gap in the road six feet wide and three feet deep. This culvert will need to be either replaced with a larger diameter culvert, or better yet, a log stringer bridge similar to the others used on this road.

Stream #12 was not inventoried due to lack of time. It is the stream farthest west, closest to the Katalla River. This stream is similar in size to the other streams but has a lower gradient, so there is a good chance it supports fish. Stream #12 will be electro-shocked in the future, probably the next time a crew goes to Katalla to collect water samples.