



State of Alaska  
Department of Fish and Game  
Sportfish Division

Nomination Form  
Fish Distribution Database

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STATE OF ALASKA

Region Southeast Region I

USGS Quad Skagway B-3 FISH & GAME

Fish Distribution Database Number of Waterway 115-32-10250-2081

Name of Waterway Muskrat Creek  USGS Name  Local Name

Addition  Deletion  Correction  Backup Information

For Office Use

Nomination # <u>04 333</u>	<u>AKLHA</u>	<u>2/24/05</u>
Revision Year: <u>2006</u>	<u>[Signature]</u>	<u>2/24/05</u>
Revision to: Atlas _____ Catalog _____	Fisheries Scientist	Date
Both <u>X</u>	<u>[Signature]</u>	<u>12/17/04</u>
Revision Code: <u>A-1, B-6, B-2</u>	FDD/Project Biologist	Date
	<u>[Signature]</u>	<u>3/15/05</u>
	Drafted	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Coho salmon	2002 - 2003	X			<input checked="" type="checkbox"/>
					<input type="checkbox"/>
					<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:** This stream is currently documented as coho salmon rearing. Ben Kirkpatrick with ADF&G observed approximately 20 spawning coho salmon there on December 13, 2002. A total of 123 adult coho salmon were radio tagged as they migrated into the Chilkat River in 2003. One of these fish spawned in Muskrat Creek. Each radio tagged fish was thought to represent about 950 coho salmon. The results on this study will be published in a 2004 Fishery Data Series Report entitled "Production and Spawning Distribution of Coho Salmon from the Chilkat River, 2002-2003" currently in preparation. During 2004, an undersized, perched culvert was replaced by a properly bedded much larger culvert to improve fish access into Muskrat Creek. The stream should be extended and coho spawning added as shown on the attached map.

*extend stream add COS to existing stream*

Name of Observer (please print): Randy Ericksen  
 Signature: [Signature]  
 Address: ADFG - Div. of Sport Fish  
PO Box 330, Haines, AK 99827

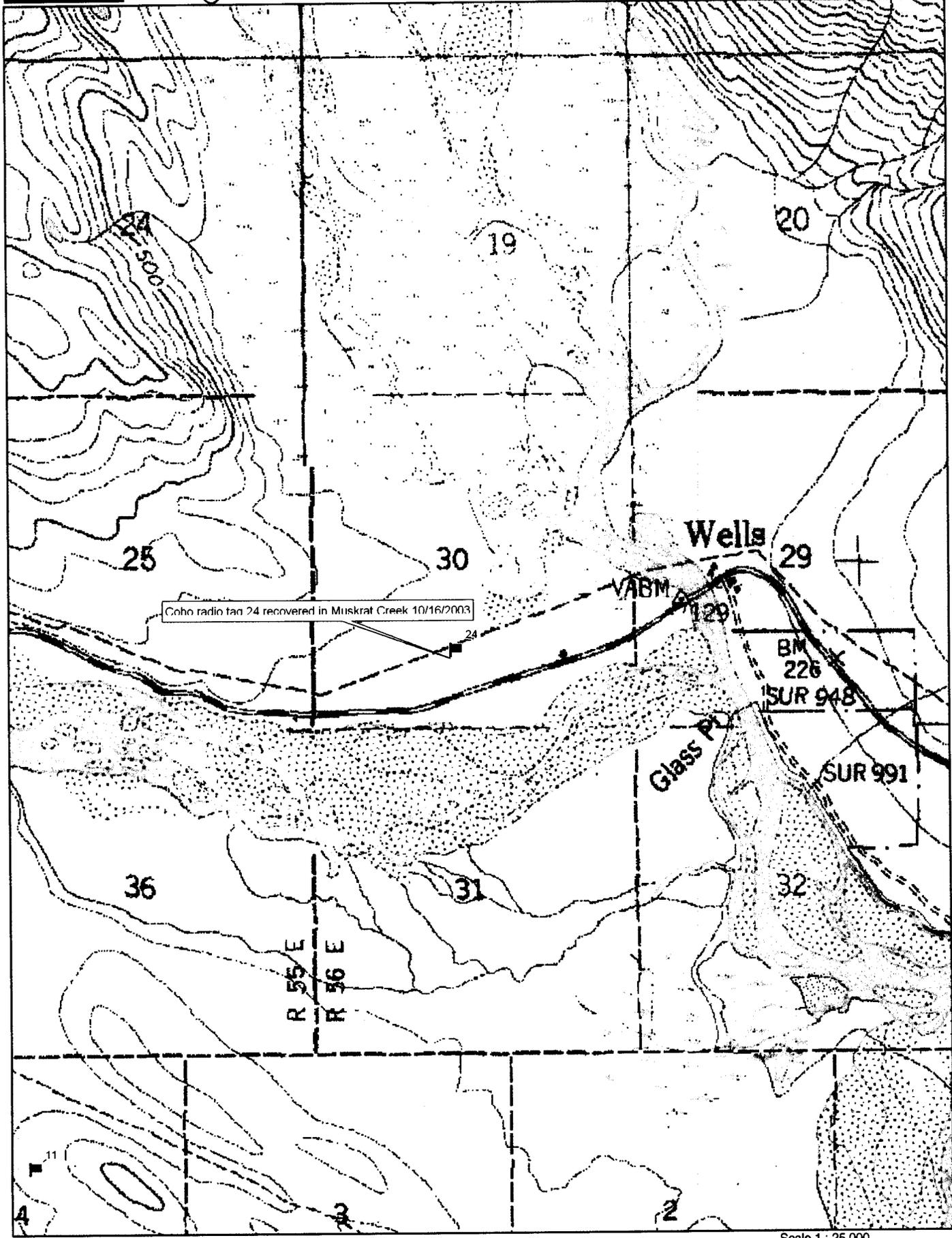
Date: 11/5/04

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 Fish Distribution Database.

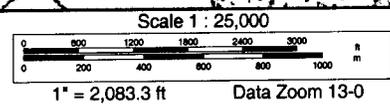
Signature of Area Biologist: [Signature]  
 Name of Area Biologist (please print): Randy Ericksen

Revision 04/03

gpsfix on radio tagged coho



Coho radio tag 24 recovered in Muskrat Creek 10/16/2003



# STATE OF ALASKA

**FRANK MURKOWSKI, GOVERNOR**

## **DEPARTMENT OF FISH AND GAME**

### *SPORT FISH DIVISION*

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P.O. BOX 240020  
DOUGLAS, AK 99824-0020  
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June 27, 2003

Erika Phillips  
NOAA Fisheries  
Box 21668  
Juneau, Alaska 99802-1668

Dear Erika:

RE: Muskrat Creek Culvert

The Alaska Department of Fish and Game (ADF&G) conducted a habitat survey of Muskrat Creek (ADF&G #115-32-10250-2081) on December 13, 2002. This done at the request of NOAA Fisheries to document fish habitat in the vicinity of a culvert identified as impeding fish passage. This stream flows parallel to and north of the Haines Highway west of the Wells Bridge at approximately 25 Mile. A private road that accesses several private lots and homes crosses Muskrat Creek, which is in an 18" by 40' corrugated metal pipe (CMP). This CMP is perched approximately two feet above the streambed at the outlet and one and a half feet at the inlet.



CMP Outlet



CMP Inlet

Approximately 400' of stream was surveyed below the CMP. The stream width was between 12' and 20' with a gravel substrate. This stream runs clear and with a depth between 6" and 12" with occasional pools. There were approximately 20 coho spawning throughout this area. This also appears to be excellent rearing habitat for juvenile salmonids.



Downstream spawning



Below CMP

The CMP and roadbed have backed up the stream and created a pool that extends approximately 100 feet above the road. The bottom of the pool is covered with silt and organic debris at least a foot deep. The water continues to be backed up and too deep to wade for several hundred feet; the bottom is still covered with silt and organic debris. The width varies between 20 and 30 feet. After approximately 500 feet some gravel was exposed through the silt in the streambed. The channel then becomes more confined, approximately 10 feet wide and spawning coho salmon were observed. Numerous spawning coho salmon and their redds were observed for approximately another 500 feet. The channel width diminished to approximately 4 feet wide until a higher gradient tributary entered the stream that contributes most of the water.

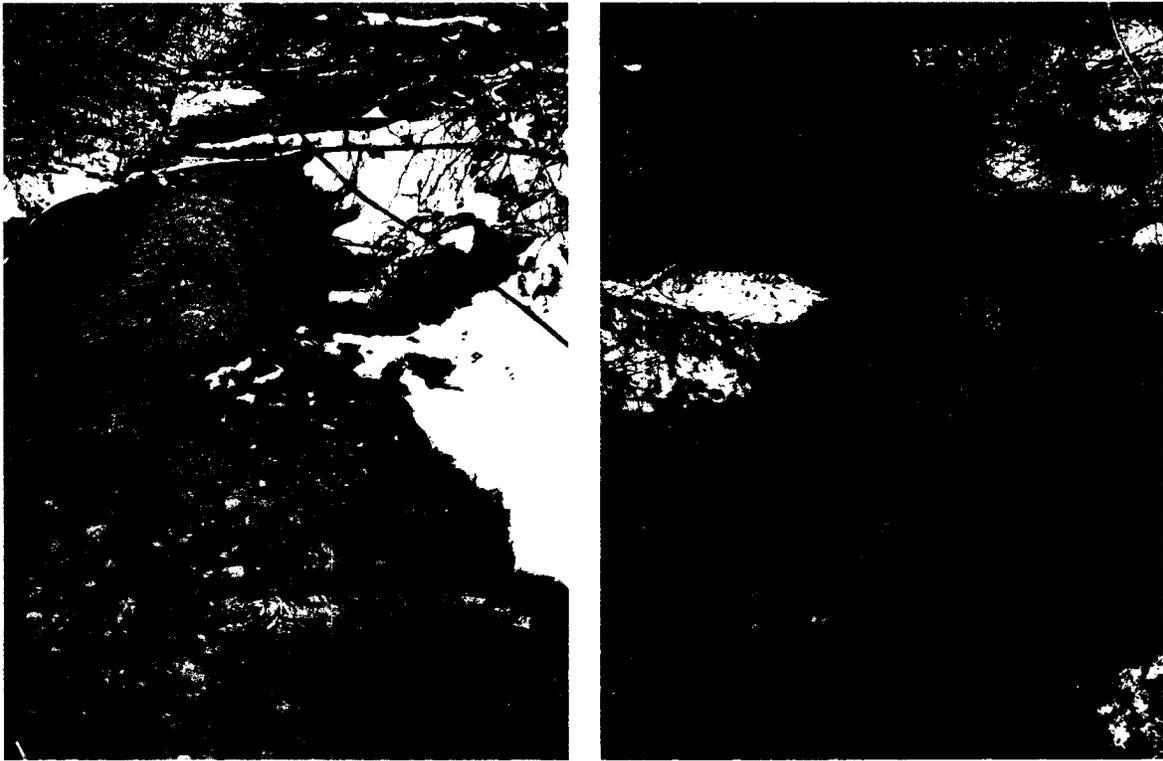


Inlet Pool



Backwatered Channel

The existing culvert is extremely undersized for the hydraulic and fish passage requirements of this stream. Upstream migration is impeded for salmonids and possibly blocked for juveniles during some flows. A backwater has been created above the culvert that has likely submerged potential spawning habitat for coho salmon. An adequately placed and sized culvert will remedy this situation and allow this stream to function similar to that before the road was constructed.



Coho Salmon Redds in Upper Reaches of Muskrat Creek

ADF&G feels that replacing this culvert should be a high priority given the productivity of this stream and the relatively low cost of designing and installing an adequate structure. We look forward to working with you and the Takshanuk Watershed Council on completing this project.

Sincerely,

Ben Kirkpatrick  
Habitat Biologist  
Watershed & Restoration Projects Coordinator

cc: Rocky Holmes, ADF&G, Douglas\*  
Staff, ADF&G, Haines\*  
Carl Schrader, DNR, Juneau\*  
Roy Josephson, DNR, Haines\*  
Samia Savell, NRCS, Juneau\*  
Linda Shaw, NMFS, Juneau\*  
Neil Stichert, FWS, Juneau\*  
Mike Case, Haines Borough\*  
Mark Sogge, TWC, Haines\*

\* = email distribution

