

State of Alaska  
 Department of Fish and Game  
 Nomination for Waters  
 Important to Anadromous Fish

1986  
 Year of Revision  
 86-008

Anadromous Water Catalog Volume SC II  
 USGS Quad 50 Anchorage D-6 (C-6 + C-7)  
 Name of Waterway Little Susitna River  
 Anadromous Water Catalog Number of Waterway \_\_\_\_\_  
247-41-10100

Change to X Atlas  
 \_\_\_\_\_ Catalog  
 \_\_\_\_\_ Both  
 Addition X  
 Deletion \_\_\_\_\_  
 Correction \_\_\_\_\_  
 Name addition:  
 USGS name \_\_\_\_\_  
 Local name \_\_\_\_\_

ALASKA DEPT. OF  
 FISH & GAME  
 SEP 23 1985  
 REGION II  
 HABITAT DIVISION

For Office Use

Nomination # _____
<u>Calypso</u> 10/17/85 Regional Supervisor Date
<u>OK SFS X</u> 11/1/85
<u>Francis Brown</u> 11/1/85 Drafted Date

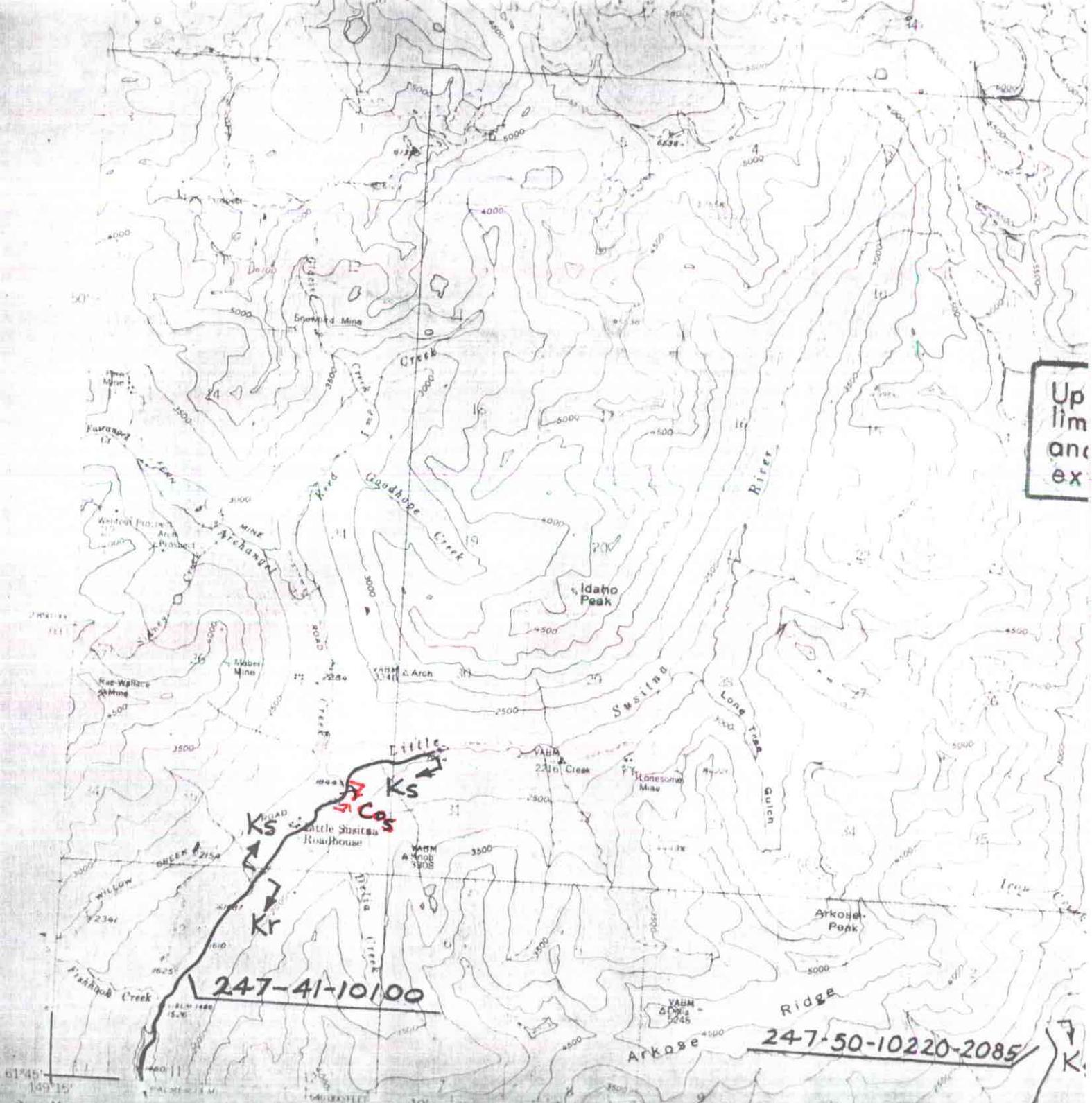
Species	Date(s) Observed	Spawning	Rearing	Migration
<u>Coho</u>	<u>1984</u>			
	<u>See attached Report</u>			

Comments: Provide any clarifying information, including number of fish observed, location of fish survey data, etc.

Attach a copy of a map showing location of mouth and upper points of each species, specific stream reaches identified for spawning or rearing, locations of barriers, such as falls. Attach a copy of the fish survey data, if available.

Name of Observer (please print) Larry Engel  
 Date: \_\_\_\_\_ Signature: ADFG Sport Fish  
 Address: Alaska

Signature of Area Biologist: Larry Engel



Up  
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and  
ex

247-41-10100

247-50-10220-2085

61°45'  
149°15'

Mapped, edited, and published by the

10'

# MEMORANDUM

# State of Alaska

DEPT. OF NATURAL RESOURCES, DIV. OF LAND & WATER MGMT., SOUTHCENTRAL REGION

TO: Grazing Field Trip Participants  
Hatcher Pass and Matanuska Valley  
Moose Range Planning Team

DATE: August 2, 1985

FILE NO: 5121.03(C) & 5121.03(D)

TELEPHONE NO: 786-2259, 2258

FROM: Sandra Cosentino  
Hatcher Pass Project Manager  
and  
Lisa Holzapfel  
Moose Range Project Manager  
and  
Dan MacFarlane  
Moose Range Project Assistant

SUBJECT: Summary of July 29  
Grazing Lab at the  
Little Susitna River

## Grazing Lab Participants

Bill Platts, U.S. Forest Service Intermountain Station  
Dimitri Bader, ADF&G  
Greg Bos, ADF&G  
Bill Heim, DOA  
Jake Shaw, DOA  
Katie Eberhart, DOA  
Doug Warner, DOA  
Allen Koester, SCS  
Calvin Steele, SCS  
Darryl Kautz, SCS  
Devony Laner, SCS  
Dot Helm, Agricultural Experiment Station  
Bill Mitchell, Agricultural Experiment Station  
Pat Beckley, DLWM-SCRO  
Janet Burleson, DLWM-SCRO  
Lisa Holzapfel, DLWM-SCRO  
Dan MacFarlane, DLWM-SCRO  
Sandra Cosentino, DLWM-SCRO

A grazing lab was held at the formerly grazed lease area located between the Little Susitna River and Archangel Creek. Records indicate between 66 and 200 cattle annually grazed the area over the past 32 years (except 84). The sites examined had not been grazed since 1983, except for unauthorized horse grazing the summer of 1984.

The lease site begins at the bridge over Archangel Creek on Lonesome Mine Road. From this point, the group walked approximately 1+ miles east along the north side of the Little Susitna River and followed a cattle trail north up to a bench area overlooking Archangel Creek.

An obvious area which has received a concentration of grazing is located at the confluence of the two streams near the bridge. Bill Platt pointed out how the vegetation in the area had been "beaten back" in the meadow and the presence of erosion of the stream banks.

Bill labeled this as a "sacrifice area." Loss of the area is acceptable as long as such bank damage is kept below 3-5% of the entire drainage bank area. At the 3-5% damage level, loss to fisheries begins to occur.

The group observed several spawning king salmon. Last summer, ADF&G biologists observed 30 silver salmon spawning near this same confluence. The area is also used as a campsite.

A management concern in riparian zones is introduction of fecal coliform into the stream. Coliform starts immediately when cattle are put on to grazing lands adjacent to streams and continues two weeks after they are taken off and occurs again at the time of spring snow melt. This is a concern for causing several types of dysentery to downstream water users.

Observations about the lease site by Bill Platt include:

1. There is no fisheries impact at this time.
2. Alder, rocks and high velocity streams create stream habitat that is fairly resistant to impact. Banks may appear stable, but are more susceptible to washout at times of high run-off.
3. Income from the lessee should cover management costs. An example of cost analysis from the western U.S. range is:
  - \* Cost to the taxpayer is \$14/animal unit on the best range
  - \* Every animal unit sold causes a \$6 loss to fisheries
  - \* Cost of foregone opportunity and aesthetic value
4. Casual observation is only "hearsay," and not a valid method of management. The "gut feel approach" is not a valid measurement of changes in production and composition. At a minimum, management should include a range trend study. Documentation is needed to determine what the range can actually withstand.
5. We were seeing the area at an optimum after two years of rest. What you have here is a non-management lease system. You must enforce guidelines to control what will happen to lease area.
6. Management techniques to consider for the area are 3-pasture-rest-rotation or deferred so cattle are not using all of the area at one time. An intensive grazing system would accelerate damage to impacted areas. However, we must ask if it is cost effective.
7. Salt should be used in high bench areas to divert the cows from over utilizing the riparian zone.

8. The question of wildlife displacement should be answered. If cattle displace moose, the state may lose moose and over all economic value. We need to determine the right mix of cattle and wildlife.
9. Multiple use must remember the general public, not just users of the resource. Don't make the same mistake made in the Lower 48--letting users drive management decisions.

A brief survey of the upper bench above the riparian area displayed a high return of bluegrass in the area previously grazed. Two years of rest appeared to result in an improved bluegrass level. Also, an increase of fireweed. Accurate monitoring would be required to properly measure improvements or changes.

Calvin Steele outlined the SCS range management planning process:

Year One

1. Set up preliminary range sites

Year Two

1. Stereo interpretation of range sites and soil mapping sites.
2. Soil scientists and range specialists/biologists map units from detailed analysis of traverses.
3. Field check polygon lines and refine.
4. Collect vegetation clippings and estimate annual forage production data for grass and brush.
5. Products include:
  - \* Current annual production
  - \* Cover data
  - \* Initial stocking densities