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

AWC Volume SE SC SW W (AR) IN USGS Quad Nome C-2

Anadromous Water Catalog Number of Waterway 333-10-10900

Name of Waterway Aurora Creek USGS name X Local name ____

Addition X Deletion ____ Correction ____ Backup Information ____

For Office Use

Nomination # 94 347

Revision Year: 1994

Revision to: Atlas ____ Catalog ____

Both X

Revision Code: A-E

AYoder 10/7/93
Regional Supervisor Date

EO Winn 1/26/94

L. Grove 2/18/94
Drafted Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Migration	Anadromous
Dolly Varden	8/8/93		✓		✓

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 any other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments: 8.2 miles from Teller Rd. via Oregon Creek trail. Two Dolly Varden (120mm, 150mm) collected from pool adjacent to old mine cabin. Numerous spring seeps. Creek channel 8-10 ft wide, approx 15 cfs, 2% gradient, cobble substrate.

ALASKA DEPT. OF FISH & GAME
NOV 08 1993
REGION II
HABITAT AND RESTORATION DIVISION

Name of Observer (please print) ROBERT F. MCLEAN

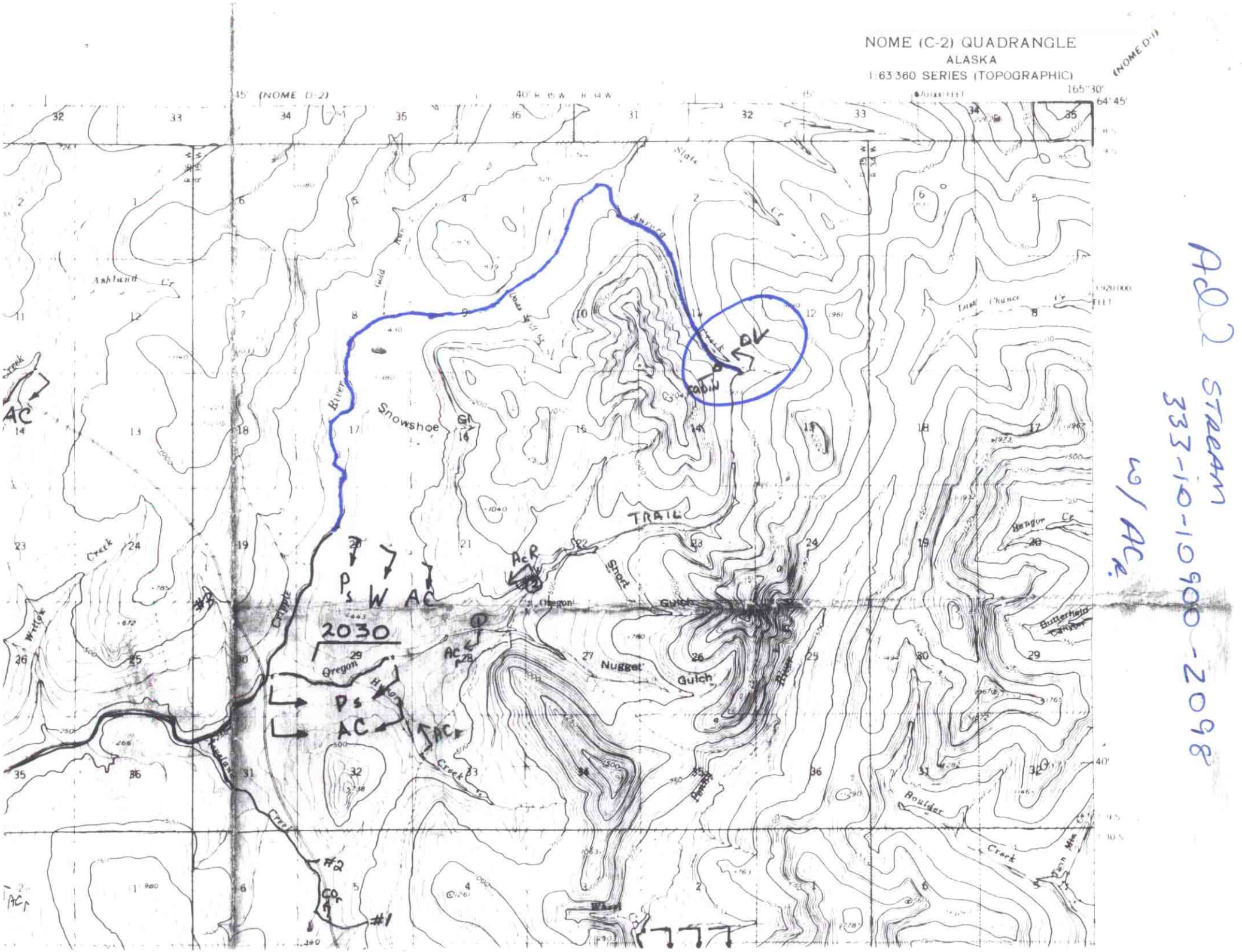
Date: 10/6/93 Signature: Robert F. McLean

Address: ADF&G-HER
1300 College Rd Fairbanks

This certifies that in my best professional judgement 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: Robert F. McLean

Rev. 7/93



AQ2 stream
337-10-10900-2098
69/ AC.

MEMORANDUM

State of Alaska
Department of Fish and Game

To: Lance Trasky
Regional Supervisor
Habitat and Restoration Division

Date: October 25, 1993

File No:

Telephone Number: 451-6192

From: Alvin G. Ott
Regional Supervisor
Habitat and Restoration Division
Department of Fish and Game

Subject: 1994 Anadromous Catalog Nominations

RE: 1994 Anadromous Catalog Nominations -- Justification for Designation of Juvenile Arctic Char (Dolly Varden) within the Seward Peninsula Area as Anadromous.

In response to your past requests, the following justification has been prepared for the record and reflects the factual basis for our determination that Seward Peninsula Arctic char (now classified as Dolly Varden) are predominately anadromous.

Arctic and sub-arctic char populations exhibit a number of life history patterns. This variation is further complicated in that char within a single drainage exhibit considerable "plasticity" in which sympatric and allopatric forms exist with different life history patterns. McCart (1980) describes four life history types. Three of these types (isolated stream residents, residual and anadromous) occupy stream habitats while the fourth type resides in lakes. The lake resident type is generally regarded to be a resident, non-anadromous, population (recent taxonomic clarification regards this morph type as a true Arctic char - other char morph types are now considered to be Dolly Vardens). However, McCart concludes that all three stream morphs cannot be distinquished by meristic characteristics. The only way to distinguish anadromous and non-anadromous populations is to document the life history pattern of the fish in question or examine external characteristics such as parr-marks and coloration. All three stream morphs are identical for the first several years of life and are indistinguishable until either (1) anadromous populations undertake their first sea-ward migration (Age III to V) or (2) stream residents and residual morphs first reach sexual maturity (typically Age VI).

Within this framework, research conducted by Dr. Hans Norbeng of Norway is particularly noteworthy. Dr. Norbeng artifically spawned both resident and anadromous char as separate groups and presented the results of his research at the First International Symposium on Arctic char in 1981. Dr. Norbeng's research demonstrated that both matings between resident adults and matings between anadromous adults produced the same ratio of resident versus anadromous offspring. Regardless of whether resident or anadromous adults were spawned, the offspring produced were 30% small residents, 10% large residents, and 60% anadromous. He concluded that small and large resident char were analogous to precocious individuals in salmon populations and that the life history pattern that develops may be a function of gene ratio.

Based on these findings, we believe that a reasonable basis exists for concluding that a significant percentage of juvenile char collected in mainstem and tributary streams on the