

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

93-852
WALTER J. HICKEL, GOVERNOR

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

SHL
CWO

May 25, 1993

Randolph Bayliss, P.E.
Environmental Engineer
119 Seward Street, #10
Juneau, Alaska 99801

Dear Mr. Bayliss,

Thank you for your letter of April 22, 1993, regarding the nomination of two streams to the Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes (AWC). The streams, AWC numbers, 113-41-10190-2011 and 113-41-10190-2013 are tributaries to the Indian River (AWC number 113-41-10190) located in Sitka. In your letter you expressed concern that the nominations of these two streams was based on insufficient data for confirming that these streams provide anadromous fish habitat. This is not the case.

There are over 14,000 known and cataloged anadromous streams in Alaska, comprising thousands of miles and millions of acres of salmonid habitat. The Alaska Department of Fish and Game (ADF&G) estimates that there is probably an equal amount existing which is unknown, unsurveyed and therefore uncataloged. While the department would like to have quantitative distribution and abundance data on all anadromous waters throughout Alaska, it is unlikely that the department would ever have the staff or funding to collect these data. Often times, stream surveys are done incidentally to other duties on localized stream reaches at one point in time. Additionally, habitat requirements vary for each anadromous fish species and within species between populations. For example juvenile coho salmon disperse into small tributaries, wetlands, sloughs and ponds to feed and rear before smolting and migrating to salt water. While the acreage of habitat required may be similar to other species there are no main stem concentrations as with chinook salmon. Because of the diverse spawning and rearing requirements of the different species of anadromous fish in Alaska, the large number of anadromous streams and the very costly nature of doing quantitative surveys we do not have strict numerical criteria for accepting nominations to the AWC as your letter suggests.

After reviewing your concerns, the submitted nominations, the results of the additional stream sampling which was recently conducted independently by both the U.S. Fish Wildlife Service and

ADF&G personnel and after having talked with Dave Hardy and Phil Mooney personally I have reaffirmed my decision that these streams are important for the spawning, rearing or migration of coho salmon and are eligible for inclusion into the Catalog and its associated Atlas. Based on this information the two streams will be added to the AWC and Atlas as proposed for the 1993 revision which is currently under way.

Dave Hardy recently wrote to you regarding technical advise on conducting further surveys of the two stream systems. I would also like to advise you that dependent on the method used for sampling (i.e., smolt weir) a fish habitat permit may be required. Please contact Dave Hardy in Sitka once your study plan is complete to determine if a permit is required.

As Dave mentioned in his letter, the ADF&G certainly welcomes any data further defining the distribution of anadromous fish within these systems and I look forward to receiving your final report. Thank you.

Sincerely,



Edward W. Weiss
Habitat Biologist
Region II
Habitat and Restoration Division
(907) 267-2284

cc: D. Hardy, ADF&G
P. Mooney, ADF&G
F. Rue, ADF&G
L. Trasky, ADF&G
L. Shea, ADF&G
B. Hughes, USFWS

MEMORANDUM

State of Alaska

DEPARTMENT OF FISH AND GAME

ALASKA DEPT. OF
FISH & GAME

TO: Ed Weise
Habitat Biologist
Anchorage

DATE: May 13, 1993

MAY 19 1993

FILE NO.:

REGION II
HABITAT AND RESTORATION
DIVISION

THRU:

TELEPHONE NO.: 747-5828

SUBJECT: Indian River Tributaries

FROM: Dave Hardy ^{DN}
Area Biologist
Habitat & Restoration Division
Sitka Office

As requested, on May 10-11 I trapped and dipnetted rearing coho salmon and Dolly Varden char in the two tributaries to the Indian River shown on the attached map.

For the western most creek I set two traps overnight, in the first 200 yards above the road. Trap one yielded 9 coho and 14 Dolly Varden while trap two had 6 coho and 7 Dollies. I then hiked up this stream and sampled upstream reaches with a dip net. The uppermost coho fry captured was about 4,000 feet upstream from where this tributary joins the Indian River.

For the eastern creek I fished 4 traps overnight. Trap 3 was set in a pool just below the pond outlet culvert and yielded 2 coho and 17 Dollies. Traps 4, 5, and 6 were upstream of the culvert block and yielded 8 Dollies, 7 Dollies, and one Dolly/one coho respectively. The coho was a large (3 1/2 - 4") smolt which may have reared for more than one year in this tributary.

All traps were set between 3:45-4:15 pm on 5/10/93 and retrieved between 9:00-9:30 am on 5/11/93. Salmon eggs were used as bait.

Because of the perched culvert on the eastern tributary I expected very low densities of coho fry above it. I trapped holding pools within the first 100 yards above it in order to have the greatest potential to capture outmigrating smolt. Although most cohos outmigrate after one year in fresh water, some may remain in freshwater as long as five years. This extreme has been documented by scale samples from the Yakutat area. It is also possible that one or two pairs of adult coho may have passed the perched culvert during very high fall flows to spawn upstream.

As you know this fish passage problem is scheduled to be remedied this summer, and fall 1993 coho migrants should be able to easily pass upstream. Coho rearing densities will hopefully return to normal in this tributary within a few years thereafter.

Attachment.

cc: Lana Shea
Jim DiGennaro
Marlene Campbell

Frank Rue
Randy Bayliss
Kevin Morgan

Bill Coltharp
Bill Hughes

STATE OF ALASKA

ALASKA DEPARTMENT OF FISH AND GAME

WALTER J. HICKEL, GOVERNOR

304 LAKE STREET, ROOM 103
SITKA, ALASKA 99835-7563

Telephone: (907) 747-5828

April 30, 1993

ALASKA DEPT. OF
FISH & GAME

MAY 04 1993

REGION II
HABITAT AND RESTORATION
DIVISION

Randy Bayliss
119 Seward Street #10
Juneau, Alaska 99801

Dear Randy:

Re: Fish Streams, Indian River

Thank you for your letter dated 26 April, 1993, requesting advice and information on the two anadromous fish tributaries to the Indian River which flow through the Sheldon Jackson college property proposed to be developed as a subdivision.

Enclosed is some fish trapping data collected by the USF&WS for these tributaries. The notes from DF&G's field visit in July of 1992 have already been transmitted to Sheldon Jackson College staff Jim DiGennaro and, I believe, Bill Coltharp.

We appreciate your interest in carefully defining the distribution of fish in these tributaries. Probably the best time to document the upstream limits of fish distribution is in the fall (September/October) when streams are full and adult cohos migrate to spawn in upper tributaries. Adults can be easily confirmed visually, and fry captured in minnow traps or with small dip nets or minnow seines. Aerial photos would be helpful to map the streams, and survey instruments would help document distances and location of stream features such as side tributaries.

The stream labeled "Stream A" by Bill Hughes was examined by Phil Mooney on July 21, 1992, and trapped by Bill Hughes on April 22, 1993. The stream labeled "Stream B" on the USF&WS map was altered by Sheldon Jackson through construction of a road and gravel pit which adversely affected fish passage upstream, and was subject to a notice of violation from this department. Remedial plans have been approved and construction of a series of weir pools is scheduled to occur this summer. Prior to construction of the road and gravel pond I personally observed coho fry rearing in the tributary above the gravel pit/culvert area.

Last fall I received complaints from Sitka residents that adult coho were beating themselves up on the rocks while trying to pass upstream through the perched culvert. I discussed this with Bill Coltharp, who made an effort to capture coho with a net in the pond below the culvert to transfer them upstream. Unfortunately he was unsuccessful. The perched culvert and pond have adversely affected the distribution and abundance of coho in this tributary. Replacing the perched culvert with a series of weir pools will allow coho to once again freely pass upstream. We anticipate that it may be several years before coho distribution and abundance return to normal in the upper portions of the tributary, given the multiple years the perched culvert has been in place.

UNITED STATES GOVERNMENT

memorandum

DATE: April 22, 1993

REPLY TO
ATTN OF:

Bill Haysler
Fish and Wildlife Biologist (FWE-Sitka)

SUBJECT:

Stream Survey Results, Indian River/Silver Bay 21

TO:

The Files (FWE-Sitka)

Six fry traps were set in two tributaries of Indian River that would be affected by Sheldon Jackson College's proposed residential development project. Traps were set and retrieved on April 21, 1993, at the locations indicated on the attached map. Traps 1 thru 4 were set in the small drainage (A) that enters Indian River about 100 m upstream of Indian River dam. The stream flows directly through a proposed residential subdivision. Traps 5 and 6 were set between Indian River road and the gravel pit pond in the drainage (B) that discharges into the pond. Many fish were observed jumping and rising to food in the gravel pit pond (probably coho salmon fry). The "gee-type" fry traps were baited with canned cat food and cut bait herring. Total length measurements were made to the nearest 0.5 cm with a standard ruler.

RESULTS

Stream # A

Trap #1

Time in: 1140hrs; time out: 1640 hrs
stream width: 10 m (ponded due to road fill);
stream depth: 35 cm
location: about 5 m upstream of Indian River Road
catch:

Dolly Varden. 6.0, 5.5, 7.5, 6.0, and 7.0 cm
coho salmon: 6.5, 6.0 and 4.5 cm

Trap #2

Time in 1150 hrs; time out: 1700 hrs
stream width: 3 m, depth: 50 cm
location: about 40 m upstream of road
No Catch

Trap #3

Time in - 12:05; time out - 1705 hrs
stream width: 1 m; depth 40 cm
location: 100 m upstream of road
Catch:

Dolly Varden: 7.0; 9.5 cm

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

To: *Dave Hardy*

From: *Bill Haysler*

Dist/Agency: _____

Phone # _____

Fax # _____

NSN 7540-01-317-7999

5098-101

GENERAL SERVICES ADMINISTRATION

* of pages * *3*

Trap #4

time in: 1210 hrs; time out 1710 hrs
stream width - 1 m; depth - 50 cm
location: about 300 m upstream of road
catch:

Dolly Varden: 8, 10.0, 6.0, 6.5, 6.5, 5.0, 9.0 8.0, & 5.0 cm
Coho salmon: 6.0, 6.5, 5.5, 6.0, 4.0, and 4.0 cm

Stream B

Trap 5

time in: 12:40; time out 17:40 hrs
stream width - 3 m; stream depth - 30 cm
location: about 30 m upstream of road
catch:

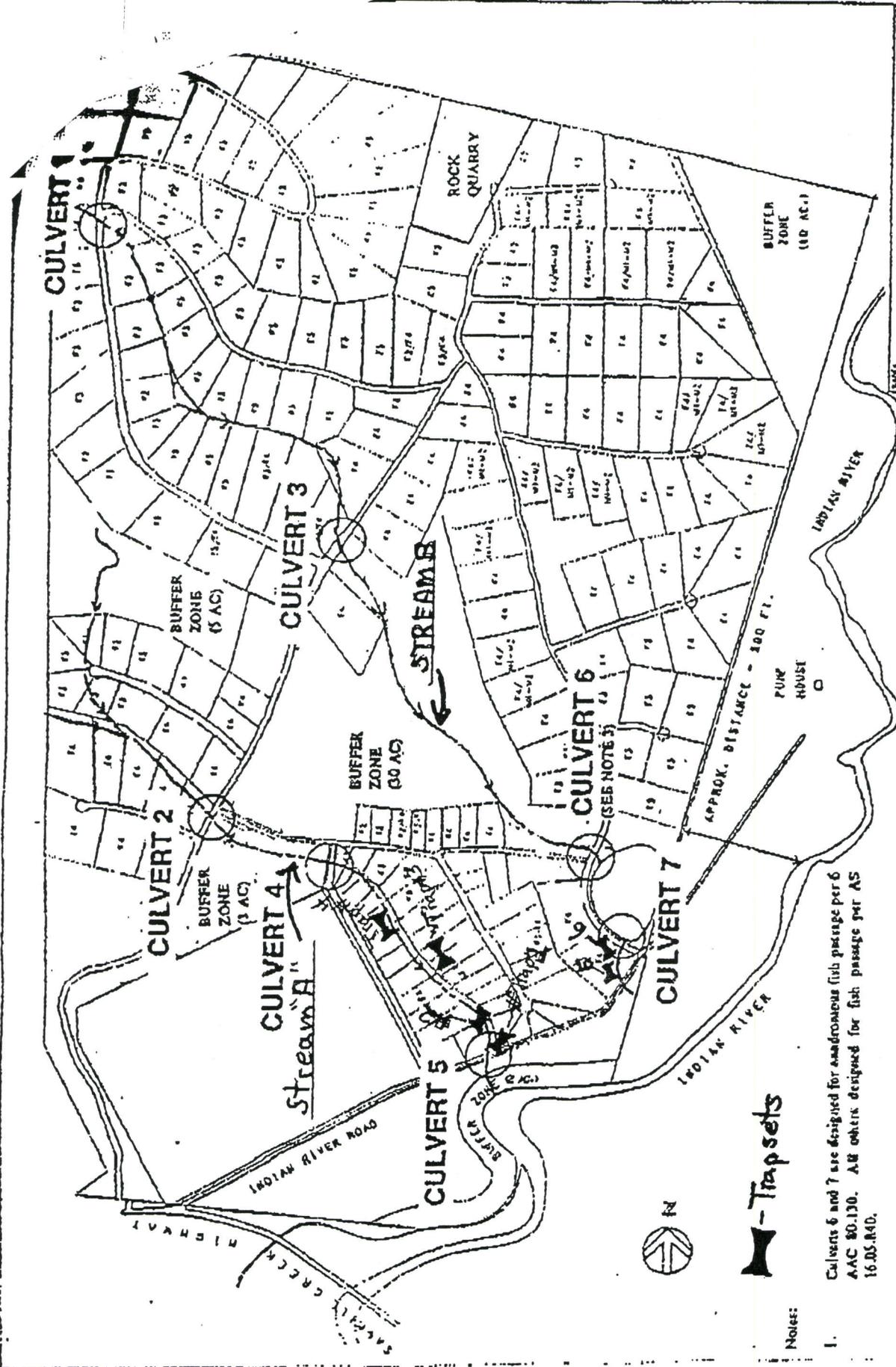
Dolly Varden: 7.5, 11.0, 10.5, 8.0, 10.5, 5.5, 9.0, 6.0,
6.0, 12.0, 6.5, 9.5, 8.0, 9.0, 7.5, 11.5, and
7.0 cm.

coho salmon: 7.0 cm

Trap #6

time in: 1245 hrs; time out: 1750 hrs
stream width - 3 m; depth 30 cm
location: about 40 upstream of Indian River road and just
downstream of pond.
Catch:

Dolly Varden: 9.5, 5.5, 7.0, 7.5, 6.5, 5.0, & 6.0 cm
coho salmon: 6.0, 6.0 cm



RESIDENTIAL DEVELOPMENT PROJECT

SHELDON JACKSON COLLEGE, SITKA, AK.

SCIENCE APPLICATIONS INTERNATIONAL CORP.

DATE: 11.1.92

PROJECT: 4/21/92

SCALE: 1" = 50'

DATE: 4/21/92

CULVERT LOCATIONS

4/22

NO.	DATE	DESCRIPTION
1	11/16/92	INITIAL DESIGN AND CONCEPTUAL LAYOUT
2	11/16/92	FINAL DESIGN AND CONCEPTUAL LAYOUT
3	11/16/92	FINAL DESIGN AND CONCEPTUAL LAYOUT

- Notes:
1. Culverts 6 and 7 are designed for anadromous fish passage per 6 AAC 80.130. All others designed for fish passage per AS 16.05.140.
 2. Drawing shows approximate locations of tributaries and proposed culverts.
 3. Street-side modifications and culvert/crossing amendments in accordance with Sheldon Jackson College Plans dated October 7, 1992, amended November 16, 1992 and submitted to Alaska Department of Fish and Game.



"Someday, son, this will be all yours."

APR 29 1993

Facsimile Transmission

REGION II
HABITAT AND RESTORATION
DIVISION

Date: 4/29/93

**Alaska Department of
Fish and Game**

To: ED WEISS 349-1723

Habitat Division
304 Lake Street, Room 103
Sitka, Alaska 99835
(907)747-6828
Fax No. 747-6239

From: DAVE HARDY

Number of pages to follow: 3

Memo: AS DISCUSSED, PLEASE
CALL AFTER YOU + DON HAVE
A CHANCE TO LOOK AT IT.
THANKS

DRAFT

Telephone: (907) 747-5828

April 29, 1993

Randy Bayliss
119 Seward Street #10
Juneau, Alaska 99801

Dear Randy:

Re: Fish Streams, Indian River

Thank you for your letter dated 26 April, 1993, requesting advice and information on the two anadromous fish tributaries to the Indian River which flow through the Sheldon Jackson college property proposed to be developed as a subdivision.

Enclosed ^{are} some fish trapping data collected by the USF&WS for these tributaries. The notes from DF&G's field visit in July of 1992 have already been transmitted to Sheldon Jackson College staff Jim DiGennaro and, I believe, Bill Coltharp.

We appreciate your interest in carefully defining the distribution of fish in these tributaries. Probably the best time to document the upstream limits of fish distribution is in the fall (September/October) when streams are full and adult cohos migrate to spawn in upper tributaries. Adults can be easily confirmed visually, and fry captured in minnow traps or with small dip nets or minnow seines. Aerial photos would be helpful to map the streams, and survey instruments would help document distances and location of stream features such as side tributaries.

The stream labeled "Stream A" by Bill Hughes was examined by Phil Mooney on July 21, 1992, and trapped by Bill Hughes on April 22, 1993. The stream labeled "Stream B" on the USF&WS map was altered by Sheldon Jackson through construction of a road and gravel pit which adversely affected fish passage upstream, and was subject to a notice of violation from this department. Remedial plans have been approved and construction of a series of weir pools is scheduled to occur this summer. Prior to construction of the road and gravel pond I personally observed coho fry rearing in the tributary above the gravel pit/culvert area.

Last fall I received complaints from Sitka residents that adult coho were beating themselves up on the rocks while trying to pass upstream through the perched culvert. I discussed this with Bill Coltharp, who made an effort to capture coho with a net in the pond below the culvert to transfer them upstream. Unfortunately he was unsuccessful. The perched culvert and pond have adversely affected the distribution and abundance of coho in this tributary. Replacing the perched culvert with a series of weir pools will allow coho to once again freely pass upstream.

We have not yet ^{examined} ~~walked~~ "Stream B" to the upper limits of fish habitat, and have not entered into the catalog all of the smaller fish bearing tributaries which feed these two streams. Also the location of these streams has yet to be carefully mapped in relation to the proposed roads and lots. We hope that your detailed surveys will help fill these information gaps.

DRAFT

Randy Bayliss
Re: Fish Streams, Indian River

2

April 29, 1993

Please be advised that a scientific/educational permit is required from DF&G prior to capturing or collecting fish. You may wish to call Mark Schwan at 465-6185 for details.

We would appreciate copies of any information you obtain so that we may expand our knowledge of these systems. Once you have established the habitat limits to your satisfaction we would be please to walk these two systems with you.

Your 4/22/93 letter to Ed Weiss suggests that the nomination of these two streams is based on "inadequate observations" and "insufficient data" and asks that application processing be delayed. The presence of coho salmon and Dolly Varden char in these systems has been verified by four biologists including the Sheldon Jackson College hatchery manager. Your proposed surveys ~~will~~ *should* provide additional documentatlon of the fish habitat distribution we have already described.

For your information, the public review period for this year's anadromous catalog nominations extended from February 14 through March 17, 1993. Unfortunately your request came too late for us to consider modifying this nomination at this time. However, the department is more than willing to consider any future fish distribution information you may provide for this system, and to upgrade the catalog to reflect the most detailed information available.

With regard to the quantification of fish populations, the two standard methods for systems this small are Peterson Index (capture/recapture) and extensive electroshocking. Both of these can cause undesirable fish mortality. Another option would be to install a downstream smolt weir to count outmigrants along with fall stream surveys of spawning adults.

Before we would authorize intensive sampling procedures which could be expected to lead to fish mortality, we would evaluate the potential benefits against the expected environmental "cost". It would be helpful if you could explain why you wish to quantify the fish populations in these systems.

Please keep us informed as you progress with your plans to survey these systems.

Sincerely,

Dave Hardy
Area Biologist
Habitat & Restoration Division
Sitka Office

Attachment

cc: Rick Reed
Bill Hughes
Bob DeJong

Bill Coltharp
Mark Schwan
Ron Josephson

Jim DiGennaro
Art Schmidt
Ed Weiss

Randolph Bayliss, P.E.

Environmental Engineer
119 Seward Street #10
Juneau, Alaska 99801
(907) 586-6818

RECEIVED
APR 28 1993

26 April 1993

Mr. Dave Hardy
Area Habitat Biologist
ADF&G, Habitat Division
304 Lake Street, Room 103
Sitka, Alaska 99835

ADFG - SITKA

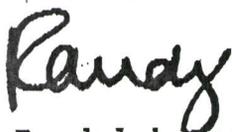
Re: SJC Waterway studies

Dear Dave Hardy;

Your recent nomination of two minor, unnamed waterways on the SJC property for listing in the anadromous streams catalog seems somewhat premature, considering the lack of data on fish populations in those waterways. However, your note on the attached nomination application regarding observations of "rearing coho" in these streams indicates that a complete study of the waterways is called for.

Since we are considering conducting both smolt and spawning adult surveys of these waterways, any information (i.e. field notes) you can provide on the stream habitat and fish populations would be very useful. We would also like to request your guidance in developing our strategy for surveying these waterways.

Any assistance you can offer in this matter will be appreciated.



Randolph Bayliss, P.E.
Environmental Engineer

cc. Stuart Denslow, SJC

Randolph Bayliss, P.E.

Environmental Engineer
119 Seward Street #10
Juneau, Alaska 99801
(907) 586-6813

ALASKA DEPT. OF
FISH & GAME

APR 26 1993

Mr. Ed Weiss
Habitat and Restoration Division
Alaska Department of Fish and Game
333 Raspberry Road
Anchorage, Alaska 99519-1599

REGION II
HABITAT AND RESTORATION
DIVISION

1993 Nominations to Anadromous Streams Catalog; Streams
2011, 2013, USGS Quad A4, Sitka

Two minor, unnamed waterways running through the Sheldon Jackson College (SJC) property have been nominated for listing in the Catalog of Waters Important for Spawning, Rearing, or Migration of Anadromous Fishes. Because these nominations were based upon inadequate observations, we request that ADF&G delay processing the applications until appropriate survey data are available.

Waterways with the proposed catalog numbers 113-41-10190-2011 and -2013 were nominated for listing by ADF&G biologists Dave Hardy and Phil Mooney in October 1992. These nominations were made based upon insufficient data for confirming that these waterways are anadromous fish habitat. Hardy and Mooney made a single walk along these waterways in July 1992 with the SJC hatchery manager. The attached application indicates that rearing coho were seen at one site shown on the attached map. The SJC representative has indicated that neither fish counts nor voucher specimens for species identification were made.

No further details were provided in the application. I understand that quantitative data on fish abundance, confirmation of species observed, and a map showing the extent of fish are minimum criteria required for nominating a stream to the catalog.

We ask that you withhold these applications until we conduct full surveys of the waterways. We would like to propose a study plan with ADF&G's guidance, and begin spring smolt counts soon. We propose to conduct spawning surveys in autumn 1993, and then provide you with a full report of these studies. Since these next few weeks are the ideal time for conducting smolt surveys, we'd appreciate your prompt attention to this matter.



Randolph Bayliss, P.E.
Environmental Engineer

cc. Stuart Denslow, SJC; Rick Reed, ADF&G

22 April 1993

NOMINATION FOR WATERWAY
Important to Anadromous Fish

AWC Volume (SE) SC SW W AR IN USGS Quad SITKA AK

Anadromous Water Catalog Number of Waterway 113-41-10190-2013

Name of Waterway INDIAN RIVER TRIPS USGS name X Local name _____

Addition X Deletion _____ Correction _____ Backup Information _____

For Office Use

Nomination # <u>93 310</u>	<u>Jaralgha</u>	<u>10-23-92</u>
Revision Year: <u>_____</u>	Regional Supervisor	Date
Revision to: Atlas <u>_____</u> Catalog <u>_____</u>	<u>Ed Wain</u>	<u>12/16/92</u>
Revision Code: <u>A-2</u>	<u>Z. Brown</u>	<u>1/4/93</u>
	Drafted	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Migration	Anadromous
<u>COMO</u>	<u>7/21/92</u>		<u>X</u>		<u>X</u>

Provide any clarifying information, including number of fish observed, location of fish survey data, etc. Attach a copy of the fish survey data, if available. Attach a copy of 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.

Comments:

PHIL MOONEY + I WALKED THESE TWO TRIPS
TO THE INDIAN RIVER WITH REPRESENTATIVES
OF SHELDON JACKSON COLLEGE (LAWSONIA). MINOR
SIDE TRIPS WITH FISH IDENTIFIED IN THE AREA

ALASKA DEPARTMENT OF FISH & GAME
OCT 26 1992
REGION 1 HABITAT DIVISION

Name of Observer (please print) DAVE HARDY / PHIL MOONEY
Date: 10/13/92 Signature: [Signature]
Address: 304 LAKE ST, PO 103
SITKA AK 99835

Signature of Area Biologist: [Signature] Rev. 12/92

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 SITKA AH

Anadromous Water Catalog Number of Waterway 113-41-10190-2011

Name of Waterway INDIAN RIVER TRIPS. USGS name X Local name _____

Addition X Deletion _____ Correction _____ Backup Information _____

For Office Use

Nomination # <u>93 310</u>	<u>Jamal Shea</u>	<u>10-23-92</u>
Revision Year: _____	Regional Supervisor	Date
Revision to: Atlas _____ Catalog _____	<u>Ed Weir</u>	<u>12/16/92</u>
Both <u>X</u>		
Revision Code: <u>A-2</u>	<u>J. Irvine</u>	<u>1/4/93</u>
	Drafted	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Migration	Anadromous
<u>COMO</u>	<u>7/21/92</u>		<u>X</u>		<u>X</u>

Provide any clarifying information, including number of fish observed, location of fish survey data, etc. Attach a copy of the fish survey data, if available. 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.

Comments:

PHIL MOONEY + I WALKED THESE TWO TRIPS
TO THE INDIAN RIVER WITH REPRESENTATIVES
OF SHELDON JACKSON COLLEGE (KANDONIA). MADE
TRIPS WITH FISH NET IDENTIFIED FROM 1-2 MILE

Name of Observer (please print) DAVE HARDY / PHIL MOONEY
 Date: 10/13/92 Signature: [Signature]
 Address: 304 LAKE ST, Rm 103
SITKA AK 99835

ALASKA DEPT.
 FISH & GAME
 OCT 25 1992
 REGION II
 HABITAT DIVISION

