

HJR

29

SENATE COMMITTEE REPORT

FURTHER:

4/27/87

DATE TURNED INTO OFFICE _____

Mr. President:

RESOURCES _____ Committee considered _____ CSHJR 29(Res)

Brooks River Falls fish ladder.

and recommended:

[] replace with _____ CS FOR _____) [] same title
[x] or adopt CSHJR 29(Res) CS FOR _____) [] new title

[] attached amendment(s) and

[x] do pass

[] do not pass

[] no recommendation

[] individual recommendations

[] further referral to _____

[] letter of intent adopted _____

Committee [] attached or [x] adopted fiscal note(s)

[] new [] updated or [x] previous
[x] zero [] fiscal impact

MEMBERS SIGNING DO PASS

OTHER RECOMMENDATIONS

L. Jones

W. ...

Arthur ...

[Signature]

Chairman signature and recommendation

[] Committee Backup Attached

Original sponsors: Herrmann, Menard,
Hanley, et al.

1 IN THE HOUSE

BY THE RESOURCES COMMITTEE

2 SENATE CS FOR CS FOR HOUSE JOINT RESOLUTION NO. 29 (Resources)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 FIFTEENTH LEGISLATURE - FIRST SESSION

5 Relating to the Brooks River Falls fish
6 ladder.

7 BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

8 WHEREAS the National Park Service has recently stated that it will
9 remove the fish ladder at Brooks Falls on the Brooks River in Katmai Na-
10 tional Park; and

11 WHEREAS the fish ladder was installed at the falls in 1949 in response
12 to the concerns of fisheries biologists who had recognized as early as the
13 1920's that a ladder was necessary to allow more sockeye salmon to migrate
14 above the falls, and that it would allow pink, coho, and chum salmon access
15 to the area above the falls; and

16 WHEREAS the partially successful attempt to construct a bypass of the
17 falls in 1920 and the later construction of the present fish ladder were
18 done with the knowledge and support of the appropriate national fisheries
19 management and National Park Service personnel; and

20 WHEREAS on-site observers estimate that in recent years approximately
21 one-half of the sockeye salmon that spawn above the falls use the fish
22 ladder to get there; and

23 WHEREAS the salmon using the ladder annually account for an estimated
24 \$134,000 of ex-vessel value to the Bristol Bay sockeye salmon fishery; and

25 WHEREAS the anticipated annual maintenance costs for the fish ladder
26 are estimated to be less than one percent of the ex-vessel value; and

27 WHEREAS sockeye salmon are the economic mainstay of the Bristol Bay
28 fishing industry and the major source of income for the residents of the
29 Bristol Bay region; and

1 WHEREAS the Alaska Department of Fish and Game and National Marine
2 Fisheries Service biologists who have firsthand knowledge of the Brooks
3 River system feel that the removal of the ladder will ultimately prove
4 detrimental to the fishery resources of the river; and

5 WHEREAS the National Park Service is removing the fish ladder on the
6 basis that the ladder

7 (1) is insignificant to the production of sockeye salmon;

8 (2) is inconsistent with National Park Service management objec-
9 tives and federal mandates;

10 (3) allows exotic species and races of fish to enter the upper
11 Brooks River ecosystem; and

12 (4) causes bank erosion and degrades the scenic quality of the
13 Brooks River Falls; and

14 WHEREAS the State of Alaska has refuted each of these points and has
15 presented its evidence and arguments to the Department of the Interior to
16 no avail; and

17 WHEREAS fisheries biologists of the State of Alaska and the National
18 Marine Fisheries Service believe that the ladder makes a significant con-
19 tribution to sockeye salmon production, and they presented the scientific
20 data to back up that belief; and

21 WHEREAS the State of Alaska has found no provisions in the Alaska
22 National Interest Lands Conservation Act or in the legislative history of
23 that Act that compel the National Park Service to remove the fish ladder;
24 and

25 WHEREAS a careful review of historic species lists for fish, wildlife,
26 and aquatic organisms upstream and downstream of the ladder does not pro-
27 vide an indication that exotic or nonindigenous species, disease vectors,
28 or gene pools have entered the upper Brooks River drainage by way of the
29 ladder; and

1 WHEREAS on-site inspection of the area by State of Alaska personnel
2 has found no riverbank erosion caused by or in the area of the fish ladder;
3 and

4 WHEREAS most people who visit the falls are not even aware that the
5 ladder exists because of the heavy brush and vegetation that have grown
6 around the ladder since 1949; and

7 WHEREAS it seems inconsistent for the National Park Service to say
8 that the ladder is incompatible with the wilderness qualities of Katmai
9 National Park when the service itself installed a viewer platform by the
10 falls, accessed by a well traveled trail from a commercial lodge and the
11 National Park Service headquarters, and from which there is a road into the
12 heart of the beautiful Valley of 10,000 Smokes;

13 BE IT RESOLVED by the Alaska State Legislature that the Secretary of
14 the Interior is respectfully requested to intervene in the decision of the
15 National Park Service to remove the Brooks River Falls fish ladder in
16 Katmai National Park and reverse that decision in the best interests of an
17 important commercial, recreational, and subsistence fishery and the region-
18 al salmon-based ecosystem; and be it

19 FURTHER RESOLVED that the Secretary of the Interior is respectfully
20 requested to direct the National Park Service to remove the boards that are
21 blocking the outlet to the ladder and to prepare a Memorandum of Under-
22 standing that will allow the Alaska Department of Fish and Game to maintain
23 and operate the ladder in a manner consistent with its historical use and
24 with current uses of the area.

25 COPIES of this resolution shall be sent to the Honorable Ronald
26 Reagan, President of the United States; to the Honorable Donald P. Hodel,
27 Secretary of the Interior; and to the Honorable Ted Stevens and the Honor-
28 able Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S.
29 Representative, members of the Alaska delegation in Congress.

Alaska State Legislature

Senate Resources Committee



Sen. John B. (Jack) Coghill, Chairman
Sen. Paul Fischer, Vice-Chairman
Sen. Lloyd Jones
Sen. Arliss Sturgulewski
Sen. Jim Duncan
Sen. Fred Zharoff
Sen. Dick Eliason

Box V
Juneau, Alaska 99811
(907) 465-4907

TO: SENATE RESOURCES COMMITTEE
FROM: COMMITTEE STAFF
DATE: APRIL 29, 1987
RE: CSHJR 29 "Related to Brooks River Falls fish ladder"

A sponsor's statement and explanation of SJR 38, which is nearly identical to CSHJR 29, is given on the following page. A table of contents is also provided on the following page.



SENATOR FRED F. ZHAROFF
ALASKA STATE LEGISLATURE

P.O. BOX 405, KODIAK, ALASKA 99616 (907) 486-5259

DURING SESSION:

P.O. BOX V, JUNEAU, ALASKA 99811 • (907) 485-3473 • 485-3474

DISTRICT N

ALASKA PENINSULA • ALEUTIAN CHAIN • BRISTOL BAY • KODIAK ISLAND • LAKE CLARK/LAKE ILIAMNA • PRIBILOF ISLANDS • SHUMAGIN ISLANDS

TO: Senator Jack Coghill
Chairman
Senate Resources Committee

FROM: Senator Fred F. Zharoff *by H.O.*

DATE: April 14, 1987

RE: SJR 38, "Relating to the Brooks River Falls fish ladder."

I respectfully request that SJR 38 be scheduled for a hearing before the Senate Resources Committee at the earliest opportunity.

SJR 38 protests the National Park Service's decision to remove the fish ladder at Brooks Falls on the Brooks River in Katmai National Park, and requests the Secretary of the Interior to intervene in this issue in order to reverse the Park Service decision.

The Brooks Falls fish ladder contributes a significant number of salmon to the Bristol Bay fishery. With this year's forecasted decline in the salmon run, the Bristol Bay region cannot afford the loss of any salmon enhancement facilities.

The Park Service plans to remove the ladder largely because it feels the ladder is incompatible with the wilderness designation for the immediate area. One of the park's goals, however, is the protection of the salmon resource. Constructed in 1949, the ladder has aided in the reproduction of generations of salmon. Removing it now would have a detrimental impact not only to the salmon resource, but also to the productivity of Brooks Lake and to the bears, wolves, foxes, eagles, waterfowl, etc., that depend on the annual return.

Attached are background materials, as follows:

1. Memorandum from John Katz, Director of State/Federal Relations, Office of the Governor. † FISC. NOTE.
2. Letter from Bill Horn, Assistant Secretary of the Interior, to U.S. Senator Ted Stevens.
3. Economic value of sockeye salmon using Brooks River fish ladder.
4. Excerpt from U.S. Senate Report 96-413 on ANILCA, referencing habitat manipulation.

5. Letter from Mr. Jim Clark, manager of the Bristol Bay Borough.
6. Article from Kodiak Daily Mirror about 1987 Bristol Bay sockeye salmon forecast.
7. Alaska Department of Fish and Game decision denying approval for National Park Service to remove Brooks River fish ladder.
8. Letter from Citizen's Advisory Commission on Federal Areas to the National Park Service. (See page 5 for fish ladder comments.)
9. Letter from George Eichner, Jr., builder of the ladder, to Dean Paddock, executive director of the Bristol Bay Driftnetters' Association.
10. 1956 research report by George Eichner, Jr., on effects of Brooks River fish ladder.

STEVE COWPER
GOVERNOR



STATE OF ALASKA
OFFICE OF THE GOVERNOR
WASHINGTON, D.C.

MAR 19 1987

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March 4, 1987

MEMORANDUM

TO: THE HONORABLE TED STEVENS, U.S. Senate
THE HONORABLE FRANK MURKOWSKI, U.S. Senate
THE HONORABLE DON YOUNG, U.S. House of Reps

FROM: *John W. Katz* JOHN W. KATZ, Director of State/Federal Relations
and Special Counsel to the Governor

SUBJECT: BROOKS RIVER FISH LADDER

The State of Alaska has reviewed Assistant Secretary of the Interior Bill Horn's October 10, 1986 letter (enclosure 1) responding to objections expressed by you, the National Marine Fisheries Service (NMFS), Bristol Bay fishing groups, and the Alaska Department of Fish and Game (ADF&G) concerning the National Park Service (NPS) plans to remove the Brooks River fish ladder.

The state is disappointed that Assistant Secretary Horn is continuing to support removal of the ladder and is basing his decision upon the NPS's opinion that the ladder: (1) is insignificant to the production of sockeye salmon; (2) is inconsistent with NPS management objectives and federal mandates; (3) allows exotic species and races of fish to enter the upper Brooks River ecosystem; and (4) causes bank erosion and degrades the scenic quality of the Brooks River falls. We believe the NPS arguments for removal of the ladder are not supported by the available facts, and would like to respond to each of these points.

First, the state believes that the ladder makes a significant contribution to sockeye salmon production. Fishery biologists with the ADF&G and NMFS feel that the ladder is important because it provides salmon with easier access to spawning habitat above the falls. The need to provide safe and reliable fish passage around the Brooks River falls was recognized by fisheries biologists as early as the 1920s when attempts were made to construct a bypass around the falls. This need was finally met when the present fish ladder was constructed in 1949. Since that time, the ladder

The Hon. Ted Stevens
The Hon. Frank Murkowski
The Hon. Don Young

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March 4, 1987

has ensured that salmon can continue to get over the falls to spawning grounds under all flow conditions.

In 1985, approximately 31,000 sockeye salmon escaped to spawn in Brooks River, Brooks Lake, and its tributaries above the falls. This represents about 1.6 percent of the 1985 sockeye salmon escapement in the Naknek River system. In recent years, counts indicate that approximately one-half of the sockeye salmon in the upper Brooks River/Lake use the ladder to gain access to spawning habitat (the other one-half jump the falls). It is significant that even though the ladder comprises only a small portion of the falls area and is not fully functional, about 50 percent of the salmon apparently use the ladder to ascend the falls.

In recent years, it is estimated that salmon using the ladder contributed approximately \$134,000 annually to the Bristol Bay sockeye salmon fishery (see enclosure 2). In contrast, the anticipated annual maintenance costs for the fish ladder are estimated to be less than 1 percent of this annual ex-vessel value. It is also important to recognize that this ex-vessel value does not include the added value accrued from processing and retailing commercially caught salmon or the economic and biological contributions that these salmon make to subsistence, tourism, and to the overall Katmai National Park and Preserve (KNPPr) ecosystem.

Second, the state believes that the ladder is consistent with the administrative and legislated requirements of NPS management of KNPPr and with the Alaska National Interest Lands Conservation Act (ANILCA). The state has found no provisions in ANILCA that compel the NPS to remove the ladder. The ANILCA simply requires that populations of fish and wildlife in areas designated as national parks be maintained in a natural and healthy condition which is defined as "a condition which assures stable and continuing natural populations and species mix of plants and animals in relation to their ecosystems."

The NPS relies heavily upon a quote from Senate Report 96-413, p. 171, concerning manipulation of habitat to support its claim that the ladder is inconsistent with ANILCA. However, examination of this portion of Senate Report 96-413 (enclosure 3) shows the quote is taken out of context from the record concerning subsistence uses within national parks, monuments, preserves, and recreational areas. Clearly, Congress did not direct the NPS to remove the Brooks River fish ladder when it discussed guidelines for maintaining subsistence uses within national park system units.

The Hon. Ted Stevens
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March 4, 1987

Third, the NPS presents no scientific evidence to support its concern that the Brooks River ladder is allowing exotic species to enter the upper Brooks River system. A careful review of historic species lists for fish, wildlife, and aquatic organisms upstream and downstream of the ladder does not provide any indication that any exotic or unnatural species, disease vectors, or gene pools have entered the upper Brooks River drainage by way of the ladder.

Fourth, the contention that removal of the ladder is required to stop the erosion of the riverbank of the Brooks Falls area is without factual basis. The enclosed photo (Photo 1) taken in 1985 shows the "erosion" to which the NPS refers. As you can see, there is no significant erosion of the riverbank, only a breach in the ladder. We have been told that by a number of people that this breach was initiated by an NPS employee to allow salmon to escape from the fish ladder after KNPPr personnel placed boards across the outlet to block fish passage in 1979.

This eroded slot has provided the only way for fish to use the ladder since 1979. There is no major erosion as claimed. If NPS decides to retain the ladder, ADF&G would agree to repair the eroded slot and to restore the conventional outlet to the ladder by removing the boards.

Finally, the ladder has had no significant effect on the scenic quality of the area as claimed. The enclosed Photo 2 shows the view of the falls and ladder that park visitors see from the viewing platform. As you can tell from the photograph, it is difficult, if not impossible, to see the ladder from the platform. Most people who visit the falls are not aware that the ladder exists. Heavy brush and vegetation have grown around the ladder since 1950, and obscure it from all but the most observant visitors. However, the NPS plans for removal of the ladder could cause a noticeable visual impact which would persist until the natural vegetation becomes reestablished.

In summary, the state does not believe the NPS has presented any justifiable reason for removal of the Brooks River fish ladder and objects to the NPS's intention to remove it. We think the ladder can be maintained and operated in conformance with protection of the natural ecosystem and in a manner consistent with NPS mandates. The ADF&G has agreed to assume responsibility for the operation and maintenance of the ladder if NPS will cooperate. Any assistance you can offer in resolving this matter would be greatly appreciated.

Attachments
Photos
cc: Bill Horn

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

REQUEST: _____

Bill Version: CSHJR 29 (Res)
Publish Date: HOUSE 4/17/87

Revision Date: _____

Agency Affected: Fish and Game

Title: Brooks River Falls Fish Ladder

BRU: _____

Sponsor: Herrmann, Hanley, Menard, Zawacki

Components: _____

Requestor: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0

CAPITAL						
---------	--	--	--	--	--	--

REVENUE						
---------	--	--	--	--	--	--

FUNDING: (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

Prepared by: Bruce H. Baker, Acting Director

Phone: 465-4105

Division: Habitat

Date: _____

Approved by Commissioner: [Signature]

Date: _____

Agency: _____

Distribution (by preparer):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)
- Senate Secretary

ENCLOSURE 1



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

(2)

OCT 10 1986

Honorable Ted Stevens
United States Senate
Washington, D.C. 20510

Dear Senator Stevens:

Thank you for your letter of June 12, 1986, concerning the Brooks Falls fish ladder in Katmai National Park. We have delayed responding to your inquiry, while the National Park Service (NPS) put together detailed responses to a number of issues related to the fish ladder. For your information, I am enclosing a copy of the materials prepared by the Service.

We are well aware of the opposition to the NPS proposal to remove the fish ladder expressed by the Alaska Department of Fish and Game (ADF&G), the National Marine Fisheries Service (NMFS), and the Bristol Bay fishing group. Nevertheless, I am persuaded that the fish ladder makes no appreciable contribution to the production of sockeye salmon in Bristol Bay and that removal of the ladder will have an insignificant effect on the regional fishery economy.

Under the constitution, laws, and regulations of the State of Alaska, ADF&G is responsible for the management, protection, maintenance, enhancement, rehabilitation, and extension of the State's fish and wildlife resources. Within NPS areas, however, State management of fish and wildlife resources must be consistent with the provisions of the Alaska National Interest Lands Conservation Act and other Federal laws and regulations. Maintenance of the ladder is considered to be incompatible with the legal requirements of NPS management and with the purposes for which Katmai was established. Moreover, removal of the Brooks Falls fish ladder will enable the NPS to stop the erosion to the riverbank that is occurring at the upper end of the ladder and also will improve the scenic quality of the Brooks Falls area.

The dewatering and filling in of the fish ladder and the improvement of road access to the Three Forks Overlook and the Valley of the Ten Thousand Smokes are very different projects for different purposes. I strongly support the concept of providing a more dependable means for visitors to reach the overlook during periods of high water, whether by a footbridge or some other kind of crossing. The Federal Highway Administration has

Honorable Ted Stevens

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been working with the NPS to develop alternative methods and costs for transporting visitors across the drainages in this area. This report is in the final stages of preparation. We will be happy to provide you with more information on this project when the report is completed.

I would be pleased to respond to any additional questions you might have on the Brooks Falls fish ladder or on land access to the Valley of the Ten Thousand Smokes.

Sincerely,

/s/ William P. Horn

Assistant Secretary for Fish
and Wildlife and Parks

Enclosures 2

Enclosure 2

Estimated Annual Value of Sockeye Salmon Using Brooks River
Fish Ladder to Bristol Bay Commercial Fishermen

$$\begin{aligned}
\text{\$ value to fishermen} &= (\text{number of spawners}) \\
&\quad \times (\text{average return per spawner}) \\
&\quad \times (\text{exploitation rate}) \\
&\quad \times (\text{ex-vessel price per fish}) \\
&= 15,000^{1/} \times 2.56^{2/} \times 0.5^{3/} \times \$7.00^{4/} \\
&= \$134,400
\end{aligned}$$

1/ Approximate number of sockeye salmon using fish ladder in 1985.

2/ The average return per spawner is based upon 26 years of data for the Naknek River system.

3/ The exploitation rate is based upon 1985 catch and escapement data for the Naknek River system.

4/ The ex-vessel price per fish is an average based upon prices paid in Naknek during the last three years.

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decisions in close consultation with the State of Alaska and affected communities and local rural residents.

In authorizing subsistence uses within National Parks, Monuments, Preserves, and National Recreational Areas, it is the intent of the Committee that certain traditional National Park Service management values be maintained. It is contrary to the National Park Service concept to manipulate habitat or populations to achieve maximum utilization of natural resources. Rather, the National Park System concept requires implementation of management policies which strive to maintain the natural abundance, behavior, diversity, and ecological integrity of native animals as part of their ecosystem, and the Committee intends that that concept be maintained. The National Park Service recognizes, and the Committee agrees, that subsistence uses by local rural residents have been, and are now, a natural part of the ecosystem serving as a primary consumer in the natural food chain. The Committee expects the National Park Service to take appropriate steps when necessary to insure that consumptive uses of fish and wildlife populations within National Park Service units not be allowed to adversely disrupt the natural balance which has been maintained for thousands of years. Accordingly, the Committee does not expect the National Park Service to engage in habitat manipulation or control of other species for the purpose of maintaining subsistence uses within National Park System units.

Several of the new park units established by this legislation, most notably the Gates of the Arctic, Wrangell-St. Elias, the Denali additions, and Lake Clark, encompass some of the most magnificent, remote and untouched mountain terrain in North America. Within these units, whole mountain ranges intersect in a spectacular jumble of unclimbed, uncharted peaks, with rugged spires, great glaciers and snow fields and deep, glacier-carved gorges. These features offer unparalleled opportunities for the whole range of climbing and mountaineering activities, from short day hikes and overnight trips to long treks and major expeditions in truly rugged and remote terrain. The Committee expects that future management of these areas for such purposes will allow such recreational uses with minimal formal regulatory requirements, and with recognition of the desire of such users for solitude, self-reliance and freedom of movement. These uses, and management practices, must be accomplished in a manner consistent with the purposes for which the areas are established and within the limits of sound management principles, including providing for visitor and resource protection.

Section 204: Native selections

Section 204 provides that valid Native selections or nominations of lands within the boundaries of the Wrangell-St. Elias National Park and Preserve are recognized and shall be honored and conveyed by the Secretary in accordance with the Alaska Native Claims Settlement Act and title IX of this bill. The Committee has determined that the fairest and most equitable means of resolving the dual withdrawal status of lands withdrawn both for Native selection under section 11 and for possible inclusion in one of the conservation systems pursuant to section 17(d)(2) of the Alaska Native Claims Settlement Act is to recognize and honor valid Native selections in the dual-withdrawn

5



JIM D. CLARK
BOROUGH MANAGER

TELEPHONE
(907) 246-4224

Bristol Bay Borough

BOX 189 • NAKNEK, ALASKA 99633

April 10, 1987

Senator Fred Zharoff
Senate House
Pouch V
Juneau, AK 99811

Dear Senator Zharoff:

The Bristol Bay Borough Assembly, at their meeting of Monday, April 6, 1987 went on record opposing the removal of the Brooks River Fish Ladder by National Park Service.

Removal of the ladder may create more damage to the site than anticipated. Further, we feel that the ladder blends in with its surroundings. Most important we feel that what ever loss of fish returning to spawn should not be sacrificed, nor should the funds be spent to remove the ladder when these same funds could be used in a more worthwhile manner.

Sincerely,

Jim D. Clark
Borough Manager

bjt

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Reds projection slightly down, but value to be up

Kodiak
July
Editor
4/6/87

By NELL WAAGE
Staff Writer

A yen for Alaskan red salmon will cost the Japanese more this year than last.

Most of the state's red salmon harvest goes to Japan. The strength of the yen against the U.S. dollar means the fish will be worth more this year than last, when they brought record prices. A poor harvest predicted for Bristol Bay, major producer of red salmon in the state, also should affect the market.

The Alaska Department of Fish and Game is predicting a run of 16.8 million fish in

Bristol Bay, with a harvest of 9.3 million, down from the 16 million last year and a pittance compared to the record catch of 37 million in 1983.

Fishermen were getting as much as \$1.50 a pound for reds by the end of the season on the island last year and it was widely quoted that a single red salmon in July was worth more than a barrel of crude oil.

Projected harvest of red salmon for the Kodiak area this year is for one and a half million fish, the same as last year's projection when almost 3.2 million reds were taken in the Kodiak area.

ADFG finfish biologists admit predicting red salmon returns in the Kodiak area has been "iffy," however they feel this year's projection is close to the mark.

It looks like a very good year for Chignik. Catch of Chignik-bound red salmon is expected to be around 2½ million, lower than last year's catch of 2¾ million but still the fifth highest catch since 1954.

A harvest of 4.8 million reds is predicted for Cook Inlet, resulting from a record return of 5.8 million fish.

ATTACHMENT 1

Detailed Rationale for Decision
by the Alaska Department of Fish and Game to Deny Approval
for Removal of the Brooks River Fish Ladder

The decision by the Alaska Department of Fish and Game (ADF&G) to deny approval to the National Park Service (NPS) to remove the Brooks River fish ladder is based upon the following factors:

1. Documentation provided to ADF&G in support of the NPS proposal does not justify removal of the fish ladder because: (a) the fish ladder is functioning and successfully passes fish over the falls, (b) some form of man-made fish bypass has existed at this location for up to 65 years and a fish ladder has existed for 35 years, (c) professional fisheries biologists with NMFS and ADF&G agree that a fish bypass benefits the fishery resource, and (d) the fish ladder provides an alternative route to ensure efficient and unobstructed fish migration over the falls;
2. Removal of the fish ladder is inconsistent with the Alaska Coastal Management Program (ACMP) and the Bristol Bay Borough Coastal Management Program (BBBCMP); and
3. Removal of the fish ladder is inconsistent with the statutory mandates of the Department of Fish and Game.

Additional information on each of these factors follows:

1. The documentation NPS provided to ADF&G does not support removal of the fish ladder. ADF&G staff reviewed USF&WS reports, provided by the NPS, supporting the proposal to remove the fish ladder, and contacted the biologists who were involved in the construction and operation of the fish ladder. We found that additional information exists which indicates that the fish ladder may be much more important in establishing and maintaining upriver salmon runs than the USF&WS report indicates, and which should be considered by the NPS as part of the reevaluation of the proposal. This includes:

- A. The fish ladder is functional. The fish ladder continues to pass salmon and other fish despite NPS efforts to obstruct the upper end in 1979. Burger et al. (1985), in one of the USF&WS reports to the NPS, incorrectly stated that the ladder was made inoperative in the early 1970s. The eroded (or man-made) gap at the upper end has continued to keep the ladder functioning and poses no immediate threat to the stability of the bank or ladder. This area can easily be repaired when the boards blocking the open end of the ladder are removed. With minimal repair and annual maintenance, the fish ladder should continue to function for decades.
- B. A fish bypass has been in existence at the falls since 1920. The Brooks River Falls fish bypass was conceived of and partially constructed in 1920 by Dennis Winn of the Bureau of Fisheries and A.T. Looff of the College of Fisheries, University of Washington. This information was obtained from a Bureau of Fisheries publication entitled Alaska Fishery and Fur-Seal Industries 1920 and was not included in the historical documentation that NPS provided to us. These men, with the help of a small crew, cut a 10 by 15 foot slot into the side of the falls, presumably the site of the existing ladder, and later widened the slot using dynamite in 1921. The work was done to alleviate what they felt was an obstruction to fish migration during low water levels at the falls. A portion of their account follows:

Kidawik Creek [Brooks River] is an ideal salmon stream with fine spawning bottom its entire length of about 2 miles. It connects Naknek Lake with Toms Lake [Brooks Lake] which is 12 by 4 miles in extent, the greater portion being clear and suitable for spawning grounds. About midway between the two lakes there is a waterfall from 5 to 8 feet high, over which it would be impossible for fish to ascend during low-water stage. It is a stone shelf of volcanic formation extending clear across the river, and, having no powder, we felt that a cut could be made with steel bars, etc. We therefore secured several stone-cutting gads, a steel bar, top maul, hammer and pick, and, after diverting the flow of water near one side of the stream, a cut was made 10 feet in width, sloping back

about 15 feet, through which the fish could easily pass.

We have to conclude that the bypass (and later the ladder) were constructed to alleviate a problem with fish passage that early fishery biologists observed or felt would occur during low water conditions. We understand from a personal conversation with Mr. George Eicher, who was director of Bristol Bay fisheries management for the Bureau of Commercial Fisheries (BCF) from 1947-1955, that the present day ladder was originally conceived of in 1938 by Mr. George Kelez who was then the BCF director of Bristol Bay fisheries management. Mr. Eicher stated that both the planning and construction were done with the concurrence of Mr. Al Kuehl, the NPS Regional Director in San Francisco. Only the disruptions caused by World War II prevented the ladder from being built prior to 1949. Mr. Eicher believes that the ladder should be left in place and maintained for the following reasons:

- i. the ladder allows access above the falls for pink and coho salmon which previously could not get over the falls,
 - ii. the ladder allows more sockeyes to migrate above the falls and the fish are in better spawning condition because of reduced stress, and
 - iii. the ladder allows fish access above the falls during low-water conditions.
- C. ADF&G and NMFS biologists believe that the fish bypass benefits the fish resource. None of the fishery biologists in ADF&G and NMFS who have firsthand knowledge of Brooks River system feel that removal of the fish ladder will be beneficial to the fishery resources. Many of the biologists feel that removal of the ladder could ultimately prove detrimental to the resource.
- D. The fish ladder provides an alternative route over the falls. During the July 1985 inspection by ADF&G, salmon were only successfully passing the falls through one location in one small area near the center of the falls and within the fish ladder. The one location where fish could jump the falls appeared to be defined by a narrow slot in the rock face and a deep plunge pool below.

.Should the plunge pool fill in or the slot change, perhaps as the result of erosion, deposition, seismic event, etc., the falls could become impassable to salmon. The ladder provides a valuable safeguard against changes which may block fish migration in the future; an event that would cause significant impacts to the fishery resource, to the productivity of Brooks Lake, and to wildlife such as bears, wolves, fox, eagles, waterfowl, etc., that depend upon the annual return of salmon to waters above the falls.

2. Removal of the fish ladder is inconsistent with the Alaska Coastal Management Program and the Bristol Bay Borough Coastal Management Program. The Brooks River is located within the coastal zone of Alaska. Removal of the fish ladder with its associated effects upon regional fisheries is likely to have a direct and significant effect upon the coastal zone of the Bristol Bay Borough. Projects such as the removal of the fish ladder with its associated impacts on fish and wildlife directly affect Alaska's coastal zone and are subject to review for consistency with the ACMP and the BBBCMP.

Standard 6 AAC 80.130(b) of the ACMP states:

The habitats contained in (a) of this section [including rivers, streams and lakes] must be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat which contribute to its capacity to support living resources.

Our finding is that removal of the fish ladder will not maintain or enhance the biological, physical, and chemical characteristics of the Brooks River which contribute to its capacity to support living resources.

Uses and activities in the coastal area which will not conform to the standards contained in (b) and (c) of this section may be allowed by the district or appropriate state agency if the following are established:

- (1) there is a significant public need for the proposed use or activity;
- (2) there is no feasible prudent alternative to meet the public need for the proposed use or activity which would conform to the standards contained in (b) and (c) of this section; and

- (3) all feasible and prudent steps to maximize conformance with the standards contained in (b) and (c) of this section will be taken.

Significant public need has not been demonstrated for removal of the fish ladder, therefore the project is not consistent with 6 AAC 80.130.

General Policy No. 4 of the BBBCMP states:

Maintenance and enhancement of fisheries shall be given priority consideration in reviewing proposals which might adversely impact fisheries habitat, migratory routes and harvest of fish or shellfish species. Alternate designs shall be seriously considered for such proposals, if such potential adverse impacts are significant. Shorelines having banks, beaches, and beds critical to the fisheries resource base shall be maintained in a productive natural condition.

Given that removal of the fish ladder carries a significant risk that this action could lead to future declines in the productivity of fish and wildlife in the Brooks River, Brooks Lake and tributaries above the falls, the project is inconsistent with the ACMP and the BBBCMP. Projects that are inconsistent with the ACMP cannot be approved by ADF&G. Furthermore, federal coastal management regulations 15 CFR 930.30 - 930.33 require any "federal activity involving the planning, construction, modification, or removal of public works facilities or other structures affecting the coastal zone of states with approved management programs to be fully consistent with such programs unless compliance is prohibited based upon the requirement of existing law applicable to the federal agency's operations."

3. Removal of the fish ladder is contrary to Alaska Statutes. AS 16.05.020 charges the Commissioner of the Department of Fish and Game to among other things, "manage, protect, maintain, improve, and extend the fish, game and aquatic plant resources of the state in the interest of the economy and general well-being of the state." Moreover, AS 16.05.840 requires:

If the commissioner considers it necessary, every dam or other obstruction built by any person across a stream frequented by salmon or other fish shall be provided by that person with a durable and efficient fishway and a device for efficient passage for downstream migrants. The fishway or device or both shall be maintained in a practical

and effective manner in the place, form and capacity the commissioner approves, for which plans and specifications shall be approved by the department upon application to it. The fishway or device shall be kept open, unobstructed, and supplied with a sufficient quantity of water to admit freely the passage of fish through it.

AS 16.05.970(b) and (d) further require:

If a person or governmental agency desires to construct a hydraulic project, or use, divert, obstruct, pollute, or change the natural flow or bed of a specified river, lake, or stream, or to use wheeled, tracked, or excavating equipment or log-dragging equipment in the bed of a specified river, lake, or stream, the person or governmental agency shall notify the commissioner of this intention before the beginning of the construction or use.

The commissioner shall approve the proposed construction, work, or use in writing unless the commissioner finds the plans and specifications insufficient for the proper protection of fish and game. Upon a finding that the plans and specifications are insufficient for the proper protection of fish and game, the commissioner shall notify the person or governmental agency which submitted the plans and specifications of that finding by first class mail.

This letter and attached rationale constitute a finding by ADF&G that plans and specifications for removal of the Brooks River fish ladder are insufficient for the proper protection of fish and game.



Citizens' Advisory Commission on Federal Areas

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(907) 456-2012

July 8, 1985

8

Mr. Roger Contor
Regional Director
Alaska Regional Office
National Park Service
2525 Gambell Street, Room 107
Anchorage, Alaska 99503-2892

Dear Mr. Contor,

The Citizens' Advisory Commission on Federal Areas has completed its review of the Draft General Management Plan, Environmental Assessment, Land Protection Plan, and Wilderness Suitability Review for Katmai National Park and Preserve. We offer the following comments for your consideration.

GENERAL COMMENTS

Overall, the draft General Management Plan (GMP) meets the requirements of Section 1301 of ANILCA. The Commission supports adoption of the proposed alternative, with some modifications as suggested below.

Brooks Camp Relocation

The Commission is concerned about the lack of specifics in the draft GMP regarding the proposed relocation of Brooks Camp and its associated facilities. According to the GMP, Brooks Camp is an important feeding habitat for bears, contributing to competition for space between bears and humans. To resolve this potential conflict, the proposed plan recommends that all facilities gradually be relocated from Brooks Camp to a site in the spruce forest adjacent to the road to Valley of 10,000 Smokes (page 23). The Park Service estimates that the cost of relocating the administrative and visitor use facilities and the Brooks Campground will be about \$3 million (page 144).

It is unclear how implementation of the relocation proposal will contribute to significantly reducing human/bear conflicts. This is an especially important consideration given the large amount of money estimated for carrying out the relocation.

Sport fishing is a primary visitor attraction at Katmai, in part, because of the trophy size trout. Much of the current sport fishing occurs at the Brooks River, easily accessible from Brooks Camp. Relocating Brooks Camp near the road to Valley of

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10,000 Smokes will put visitors at a considerable distance from the river. In addition, the new site will diminish present views of the lake, increase exposure to insects, and increase travel distances to other visitor attractions (page 112).

In all likelihood, visitors will continue to seek access to the river for scenic viewing and, particularly, sport fishing. Some individuals have speculated that poor visibility in the spruce forest may result in an increased incidence of human/bear encounters. Further, the Concessioner who operates the lodge at Brooks Camp for the NPS has stated that it is primarily the campground where the potential for human/bear conflicts exists (Anchorage Times, April 20, 1985). The Concessioner has also stated that he would lose a \$350,000 investment if the lodge is included in the total relocation proposal.

The Commission recommends that the final GMP provide additional justification for this proposal since it may do little to reduce human/bear conflicts and, thus, may not warrant the expenditure of \$3 million. The final plan needs to clearly define what constitutes a human/bear "encounter" and what constitutes a "conflict". Many visitors come to the park for the purpose of viewing or "encountering" bears; such encounters should not necessarily be perceived as conflict situations. The Park Service has indicated at public meetings that there have been no bear attacks in recent memory at Katmai. The final plan should provide documentation of conflicts recorded at Brooks Camp specifically.

Also, the Commission recommends that Park Service delay their decision on the relocation proposal until results of the present bear behavior study are available. In the interim, the Commission supports the promotion of a catch-and-release program in the Brooks River as a means for reducing conflicts between fishers and bears.

Sport fishing in the Park

There is some indication in the GMP that the Park Service may be seeking to either phase out or significantly restrict sport fishing within the park. Traditional activities at Brooks Camp have focused on wildlife observation, scenic viewing, and sport fishing, all of which can conflict with bears' use of the Brooks River (page 24). The plan states that future restrictions on sport fishing could be necessary (pages 24, 91, 102, 106, and 116). Restrictions could apply to the number of people or to fishing seasons, locations, or methods. Further, new recreational opportunities proposed for the park (not the preserve) do not include sport fishing.

The Commission recommends that NPS acknowledge that, pursuant to the Memorandum of Agreement between the National Park Service and the Department of Fish and Game, the State's regulatory process should be used to develop or modify regulations

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governing or affecting use of fish and wildlife in Katmai, unless NPS regulatory needs are beyond the legal authority of the State. The Park Service is encouraged to confer with ADF&G prior to making specific regulation recommendations and to make full use of the normal Advisory Committee, Regional Resource Council, and Board of Fisheries processes. The Commission would not support any restrictions on sport fishing in Katmai unless a clear danger to the resource is indicated.

Subsistence Activities in the Park

The Commission feels that the discussion contained in the draft GMP regarding subsistence use in Katmai (page 34) does not adequately address the issue. Bristol Bay Native Corporation and local residents have identified the continuation of traditional subsistence activities as an area of primary concern. The draft plan, in its present form, does not fully comply with the requirements of Section 1301(c)(3) of ANILCA to take into consideration "(p)roviding opportunities for Alaska Natives residing in the concerned unit and areas adjacent to such unit to continue performing in such unit activities which they have traditionally or historically performed in such unit."

The Katmai Park and Preserve area represents a traditional subsistence use area for the people of South Naknek, Naknek, Igiugig, Levelock and Kokhanok. Subsistence fishing in the Naknek Lake and the mouth of the Naknek River was disallowed in the 1969 extension of Katmai National Monument and in park designations created by ANILCA. These areas have been important sockeye (also called red fish) and whitefish fishing areas traditionally used by local residents.

The Commission recognizes that Section 202(2) of ANILCA does not specifically mention that subsistence use is to be a designated purpose of the Park. However, we do feel that compliance with Titles I and VIII of ANILCA provide the National Park Service considerable latitude for allowing such uses. Section 101(c) states, "It is the purpose of this Act...to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so."

Additionally, Section 802(1) requires that "consistent with sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands" (emphasis added).

The State of Alaska has stated in its Resource Management Recommendations for Katmai National Park and Preserve (1984), that "although the specific accommodations for subsistence uses are not necessarily reflected in the relative management plans, the identification and accommodation of subsistence uses is a

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prime management objective" (page 5). This statement is consistent with the provisions of ANILCA as well as terms of the Memorandum of Understanding signed by the National Park Service and the Alaska Department of Fish and Game (ADF&G). The Commission urges the Park Service to consult ADF&G to establish management priorities consistent with Katmai Park and Preserve objectives to accommodate traditional uses to the greatest extent possible.

Boundary Changes

Related to the above issue, the Native corporations owning lands at the west end of Naknek Lake, have long discussed their desire to have the park and preserve boundary moved to the east so that it will omit their lands from the park and preserve boundary. The Federal and State versions of the Bristol Bay Cooperative Management Plan recommended that the ANILCA boundary be moved back to the old monument boundary at the head waters of the Naknek river in order to remove native corporation lands from the park.

Park Service recognizes in the plan (pages 62, 63) the desire to have the boundary changed to the west end of Naknek Lake, however, their position is that such a change would require Congressional legislation. Bristol Bay Native Corporation maintains that Section 103(b) of ANILCA provides authority to enact such boundary changes administratively.

As an alternative to a boundary change, the Alaska Department of Fish and Game (ADF&G) recommends that the western portion of the park, bordering Naknek Lake be changed from park status to preserve status. This would allow fishing, hunting and trapping without jeopardizing any of the park's wildlife populations so popular at Brooks River and along the Valley Road. The western portion of Katmai National Park has very good numbers of moose, seasonal concentrations of caribou, and a moderate density of furbearers.

The Commission recommends that the Park Service take an active role in exploring these options.

State Land Exchange

One of the top priorities in the Katmai Land Protection Plan is fee simple acquisition of 75,000 acres of State land through land exchange in order to protect wildlife. Katmai National Park and the McNeil River State Game Sanctuary, located adjacent to the park, form the largest sanctuary in existence for Alaskan brown bears. However, bears that seasonally use the 49,770 acre area of state-owned land inside the park boundary are subject to sport hunting, as are bears that use approx. 25,000 acres of state-owned lands located between McNeil and Katmai.

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McNeil River State Game Sanctuary was established in 1967 by the Legislature primarily to protect the concentration of brown bears along the river. Similarly, one of the primary objectives in expanding Katmai National Park northward was to protect high concentrations of brown bears and their denning areas.

The land to be included in the land trade is located between McNeil River State Game Sanctuary and Katmai National Park, and constitutes valuable brown bear habitat belonging to the state. The eastern two-thirds of this state land was included by Congress as part of the Katmai extension, indicating Congress' intention to have the National Park Service eventually acquire this area.

The ADF&G has been actively supporting the exchange of state lands adjacent to the McNeil River Game Sanctuary, to the NPS for federal lands of equal value elsewhere in Alaska. As conceived by the ADF&G, the exchange also would include the conversion of the western portion of Katmai National Park from Wilderness to Preserve.

The Department of Natural Resources (DNR) has expressed concern that a land exchange may not be the most economical or expedient means available for protecting critical bear habitat. DNR has suggested the area be protected through the state's regulatory process by designating the area as critical habitat or limiting hunting pressure through a permit only hunt.

The Commission recommends that the Park Service maintain open channels of communication with concerned State agencies and seek a solution which meets the specific mandate of ANILCA "to protect habitats for, and populations of, ...high concentrations of brown/grizzly bears and their denning area" (Section 202(2)).



Aquaculture Programs in the Park and Preserve

The Commission must also take issue with the Park Service policy regarding aquaculture programs in the Park and Preserve. Page 33 of the draft GMP states that the NPS will not permit aquaculture programs. Also, "(t)he deteriorating Brooks River fish ladder, constructed in 1949, will be blocked or removed."

The ADF&G has expressed strong opposition to this approach by NPS. In keeping with the Memorandum of Understanding between NPS and ADF&G, the Department feels the plan should include a statement supporting fisheries enhancement of park areas when based upon sound scientific principles and when compatible with park goals and values. Bristol Bay Native Corporation has also requested that the fish ladder be repaired.

The ADF&G maintains that fish passes that have historically allowed wild fish stocks access to spawning grounds are not incompatible with park management goals and should not be

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prohibited. Fish production in the Katmai is an important park value that provides significant reasons for park status of these lands. Fish production within the park is essential to commercial, sport, and subsistence fisheries in the Bristol Bay area. The presence of spawning salmon is also a key factor in attracting and maintaining the brown bear populations the park is famous for.

The Wilderness Suitability study indicates that nearly all of Katmai National Park and Preserve is designated wilderness or is determined suitable for wilderness (page 69). The Park Service should note that Congress did not intend for aquaculture programs to be prohibited in wilderness areas. In its discussion of the intent of Section 1315: Wilderness Management, the Senate Report on H.R. 39 states "it [is] very clear that various fisheries enhancement activities could be permitted by the appropriate Secretary within wilderness or wilderness study areas, subject only to reasonable regulations" (page 308).

The Commission supports the State's position on aquaculture programs in Katmai Park and Preserve.

SPECIFIC COMMENTS

Maps

Pages 9, 17, and 21: It is unclear from these maps whether Kulik Lake Lodge, Enchanted Lake Lodge, and Battle Lake Camp are within the park or the preserve.

Access

Page 19: Table 1 indicates that fixed-wing aircraft are not allowed for subsistence purposes. 36 CFR 13 Subpart B regulations (Federal Register, June 17, 1981) "do not prohibit use of aircraft for subsistence uses in national preserves." If closure to aircraft is proposed, compliance with 36 CFR 13.13 should be documented in the final plan.

Page 20: Regarding RS 2477s: The Commission disagrees with the statement that "it will still be necessary for users of any rights-of-way to comply with applicable Park Service permit requirements." Section 103(c) of ANILCA states that "(n)o lands, which, before, on, or after the date of enactment of this Act, are conveyed to the State...shall be subject to the regulations applicable solely to public lands within such units." ANILCA defines land in Section 102(1) as including "lands, water, and interests therein."

The legislative history (Senate Energy Committee Report, page 303) states that "(t)hose private lands, and those public lands owned by the State of Alaska or a subordinate political entity, are not to be construed as subject to the management regulations

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which may be adopted to manage and administer any national conservation system unit which is adjacent to, or surrounds, the private or nonfederal public lands."

Therefore, the Commission finds unacceptable the permit requirement for established RS 2477s once their validity has been recognized by the courts. The Commission would, however, support full cooperation between the State and the NPS in an effort to manage the use of established rights-of-way in a manner compatible with surrounding lands.

Brooks Camp

Page 23: It is stated that the proposed plan recommends that all facilities be relocated from Brooks Camp to a site in the spruce forest adjacent to the road to the Valley of Ten Thousand Smokes. Page 102 mentions a site between Brooks Lake and Brooks Camp is also being considered. This inconsistency in the draft should be clarified in the final plan.

Carrying Capacity

Page 28: Public testimony indicated that overuse may possibly be occurring at Bay of Islands. It is recommended that this area be included in the carrying capacity study. Also, the plan is not specific concerning how the study will be conducted. The final plan should identify how Park Service plans to "monitor" visitor levels. If adverse effects are identified, what types of "alternative actions" will be considered?

Park Operations

Page 29: The reference to Section 1307(b) of ANILCA should also state that this provision does not include sport fishing and guided hunting services. Also, Section 1308(a) of ANILCA provides for a hiring preference for individuals who have "worked in or near a CSU."

Page 29: The final plan should provide justification for the disallowing of temporary facilities under Section 1316(b) of ANILCA. Park Service should define what constitutes a "significant expansion" of existing facilities. The plan should also indicate how many facilities are presently in Katmai and how these are detrimental to the preserve.

Natural Resource Management

Page 32: The section on research and monitoring activities planned for Katmai is too vague. It is difficult to evaluate the effectiveness of proposed research for answering issues and concerns without more detail regarding the nature and scope of proposed studies. While the Commission supports research efforts directed toward bear behavior the plan is not specific

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enough in outlining what the study entails, how much it will cost, scheduling of research and how study results will be utilized.

Also, more information is needed regarding the draft plan for monitoring and managing visitor use as well as the study of natural processes that are fundamental to the ecosystems of Katmai.

Cultural Resource Management

Page 36: Bristol Bay Native Corporation and Alaska Peninsula Corporation have expressed concern about proposed archeological surveys and exploration. Certain areas within the park near the Old Savonoski village are considered sacred to residents of the region. They have expressed the desire that the grave sites or historical sites not be disturbed. The Commission supports their request that the final plan provide guidance that sacred sites will not be disturbed or further surveyed by archeologists without the permission from the associated Native village or families. Further, we support the recommendation that the thrust of the Park Service policy should be towards preservation of these old sites and protection of these sacred sites rather than further exploration and disturbance.

Land Protection Plan

Page 41: Regarding the acquisition of Native allotments without the consent of the allottee: The majority of lands selected under the 1906 Native Allotment Act are held in trust by the Federal government. It is the Commission's understanding, based on discussion with Bureau of Indian Affairs, that trust lands are exempt from condemnation without the approval of the Secretary of the Interior. The final land protection plan should provide clarification on this issue and revise, as necessary, statements contained on page 41.

Pages 46, 47: Bristol Bay Native Corporation has expressed concern regarding what the Park Service perceives as incompatible uses on private lands. The Commission supports the notion that it is inconsistent with the provisions of ANILCA to impose restrictions on private inholdings in the park (Section 203). Section 103(c) of ANILCA also states "only those lands within the boundaries of any conservation system unit which are public lands (as such term is defined in this Act) shall be deemed to be included as a portion of such units."

Pages 61-64: Bristol Bay Native Corporation has requested that the Park Service indicate whether or not there is interest by the existing land owners in even considering easements or land exchanges.

To promote better communication between all parties concerned, the Commission feels that it is incumbent upon the Park Service

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to contact individual property owners directly to discuss: land protection measures; what constitutes compatible development on their private tracts; and at what point certain uses become incompatible with the purposes of the preserve.

Specific recommendations for dealing with private property owners were contained in the Commissions' May 17, 1985 letter to all Park Superintendents currently involved in preparing general management plans:

1. Notify all inholders and owners of adjacent lands slated for potential acquisition that the plan has been released;
2. Provide them with a copy of the plan; and most importantly;
3. Send each a letter specifically outlining the Park Service's intent for their property and the page/s in the plan that discuss their property;
4. Inform each inholder of the other alternatives available under the land protection guidelines and their rights under ANILCA.

We suggest that inholders be consulted at the earliest possible stage in the planning process. We have received a response to our recommendations on the Katmai Land Protection Plan. It appears that a good effort has been made to contact inholders about the plan. This is an effort which should continue, even after the close of current comment period. The Park Service would be best served by ensuring the lines of communication remain open on this critical issue.

Alagnak Wild River Management

Page 72: Public testimony and the Bristol Bay Native Corporation have noted trespass problems exist along the Alagnak River. The Commission supports Bristol Bay's recommendation that more emphasis be placed on the need to prevent trespass problems, to clearly mark on the ground easements and camp sites along the river, and to set up a cooperative working relationship with the private owners along the river to help protect their land.

July 8, 1985

We hope that these comments on the Katmai National Park and Preserve will be useful as the final General Management Plan is developed. We look forward to a continuing role in future planning efforts for this park and preserve.

Sincerely,

Stan Leaphart
for Phil R. Holdsworth
Chairman

(9)

EICHER ASSOCIATES, INC.
ECOLOGICAL AND ENVIRONMENTAL
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GEORGE J. EICHER
PRESIDENT

March 21, 1987

Dean Paddock
PO Box 020312
Juneau AK 99812

Dear Dean:

It was a pleasure talking to you on the phone and learning of the latest developments with respect to the Brooks Falls fish ladder. Enclosed is a copy of the manuscript I put together in 1956 on the subject. It is interesting because it shows a pronounced increase in three of the five species of salmon using the ladder. It does not show much for sockeye primarily because the commercial fishery on this species was so intense that year to year changes in regulations and other factors affecting discrete populations such as the Brooks River race tend to mask out such changes. In view of the pronounced increases in the other three species, it seems safe to assume that a salutary effect must have also occurred with respect to sockeye, given the other data gleaned from years of observation. We had long noted such things as the fact that, in average years, about one fish (sockeye) in five made it over the falls. Of course we didn't know if each fish made it on its fifth try or the exact mechanism of this frequency. We did note that in low-water years, the success ratio was materially lower. We also had no way of measuring the effect that multiple unsuccessful leaps and collisions with rocks in these attempts had on later spawning success, sex ratios on the spawning grounds or other factors bearing on population changes. It seems certain that after a certain number of unsuccessful attempts, the fish lacked reserve energy to continue.

When we opened the ladder for the first time in 1950, an immediate surge of several hundred fish pushed up through. These were mostly individuals that had been unable to negotiate the falls, as evidenced by the fact that they had changed color. Before the ladder, only bright sockeye made it over the falls. It seems certain that the falls were at least a partial block to sockeye. Of course it could be argued that this tended to breed a race of good leapers, which could be countered by the obvious rebuttal that in the 37 years since, the leaping ability may have been bred out, and that closing the ladder now would result in heavy losses of those not equipped by heredity to make this leap.

Of course the lengthy holdup at the falls before the ladder provided bear an exceptionally heavy concentration in which to fish. From what I have seen in television sequences and in a visit I made in 1965, brown bear have greatly increased in the area since I worked there. I don't know the reason unless it is because they have become less fearsome of humans.

9.

I understand that some Park Service employees now contend that the ladder was constructed without knowledge or consent of that agency. This is simply untrue. At the time of ladder construction, this was a National Monument, with less attention to such details as would be held true under Park status. Until about 1940, this area was out of the Monument boundary. The falls had long been regarded as a partial block to sockeye salmon, and in the mid 1930's a channel was blasted at the right bank of the falls through the rock at the location of the present ladder by the then Bureau of Fisheries warden. Predictably, it was of no value in passage of fish. When George B. Kelez, the first director of the Bristol Bay salmon research group, made exploratory inspections of Bristol Bay spawning areas in 1938, the Brooks Falls problem was pointed out to him by Fred Lucas, the warden at that time. In 1939, my first year in the area, as an assistant to Kelez, he held preliminary discussions with the Regional Director of the Park Service in San Francisco on the subject of laddering the falls. Kelez was a stickler for government protocol.

In 1940, a Park Service representative, Victor Cahalane, accompanied by another biologist (I believe it was Leo Crouch) made a visit to the Naknak Lake and Katmai Monument area. This was in August after the fishing season. Lucas and Kelez took the two Park Service people up through the Naknak Rapids in Patrol Boat No. 7 of the Bureau of Fisheries. Although their principal destination was the Valley of 10,000 Smokes, Lucas and Kelez took Cahalane to Brooks River and Brooks Falls enroute, pointing out where the intended ladder was to be constructed. Cahalane took Kodachrome pictures of the area and of sockeye salmon on the Indian fish drying racks on the right bank of Brooks River at the mouth.

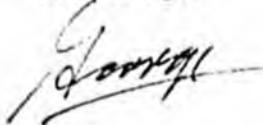
In 1941, the San Francisco Regional Director of the Park Service (I believe it was Al Kuehl [sp?]), visited the area by air and landed at Brooks Lake to inspect the laboratory we were constructing at the time and discuss the proposed fish ladder. Kelez and I went with him to the falls. Both the ladder and laboratory were subjects of correspondence between Kelez and Kuehl in this period of years. I had much of this correspondence in my files until I left the Fish and Wildlife Service in 1956. World War II halted construction of the ladder and most of that on the laboratory. When I returned to head the Bristol Bay Investigation in 1947 under Kelez, who then headed all Alaska research for the Fish and Wildlife Service, one of the immediate priorities assigned me was, in addition to completion of the laboratory, design and construction of the ladder. In 1948, the Regional Director of the Park Service (I believe it was Al Kuehl, again) flew in to the area with Kelez to inspect the laboratory work and the fish ladder plans which were then being finalized by two FWS engineers brought in from Seattle. I accompanied Kelez and Kuehl to the falls, where discussions included suggestions by Kuehl for making the ladder as unobtrusive as possible through disposal of soil in a nearby natural pit and hiding the ladder weirs under water by using the old blasted channel as a flume to hold them. His suggestions were followed.

I hired four men in 1949 specifically to work exclusively on construction of the ladder. They virtually completed it in that year leaving minor details to be finished in 1950. On July 28, 1950, the last concrete was

poured in the no. 7 weir, and on August 7 the ladder was opened and immediately used by a large school of sockeye salmon which had been unable to negotiate the falls. This was the year that Northern Consolidated Airlines opened its fishing camp on the left bank of Brooks River at the mouth. Two Park Service employees built a cabin nearby with our help. I remember that one of them was a Willie Nancarrow. They observed our work on the ladder completion, but we gathered that they did not approve of it.

I apologize for the quality of the manuscript on the ladder, which is from a carbon copy. The photographs did not copy too well. I am also including a historical piece I did for the then BCF, at its request, in 1967 which you may find of interest. Should you have any questions on any of the foregoing, please let me know.

Sincerely,

A handwritten signature in cursive script, appearing to read "George J. Eicher", written in dark ink.

George J. Eicher

THE EFFECTS OF LADDERING A FALLS IN A SALMON STREAM (1956)

George J. Eicher, Jr.

It is seldom possible to obtain an accurate measurement of the effects of ladders in assisting fish over obstructions in streams because facilities are not available to obtain complete counts of these fish, or records of counts before laddering are not available. In the case of a ladder built at the falls on Brooks River in the Bristol Bay district of western Alaska, however, a counting weir had existed a short distance above the falls providing records of salmon counts over a nine-year period previous to that affected by the ladder. These combined with counts of six ensuing years provide a record of some interest.

Brooks River, also known as Kidawik Creek, is a stream of approximately one and a half miles in length and 250 c.f.s. flow draining Brooks Lake into Naknek Lake. Midway in its length is a falls of approximately seven feet in height caused by a fault transversing the stream. Figure 1 shows a vertical aerial view of the stream. Figure 2 shows the falls with the fish ladder installed. Under normal conditions the falls have not been a block to red salmon, Oncorhynchus nerka, the principal species spawning in the area. During seasons of low water, however, it was observed that many died unspawned below the falls, presumably because of damage caused in attempting to negotiate them. The U. S. Fish and Wildlife Service decided to alleviate such mortality by laddering.

In the season of 1949 work was commenced, and a seven-step ladder was completed midway during the 1950 run. This was constructed by blasting a trough in the rock at one side of the falls and keying concrete weirs into

this. Figure 3 shows the dry ladder. It proved quite efficient in operation, the fish passing over with little apparent effort. Figure 4 shows the ladder in operation. The ladder was opened too late in 1950 to affect the main part of the red salmon run, however, it was ready by the time most coho salmon, O. kisutch, ordinarily reach this point, the latter species being a later-spawning fish.

The counting weir, or fence, has been annually built by the U. S. Fish and Wildlife Service across the outlet of Brooks Lake since 1940 with the exception of 1943. Figure 5 shows an aerial view of the weir. While it has been primarily operated to record the escapement of red salmon into Brooks Lake, records have also been kept of other species. Table 1 shows the counts of the various species in the years covered. In addition to those species previously mentioned, chum salmon, O. keta, pink salmon, O. gorbuscha, king salmon, O. tshawytscha, and rainbow trout, Salmo gairdnerii, pass through the weir in the numbers indicated. Figure 6 graphically shows the occurrence of these fish in the years involved.

The average runs of the various species in the nine years prior to ladder operation were: reds - 197,058, pinks - 2.6, chums - 1.6, coho - 0.8, kings - 4.6 and rainbow trout - 52.6. In the six years since opening of the ladder in 1950, the averages have been: reds - 56,087, pinks - 23.5, chums - 9.8, coho - 37.8, kings 5.3 and rainbow trout - 47.2. The histogram of Figure 7 shows the comparative levels of each species.

The red salmon is the principal species of Bristol Bay, and it seems likely that the downward trend noted may be due to operation of the fishery

or is due to causes other than the ladder, since the majority of runs of this species in Bristol Bay have experienced similar declines in this period. It is too early to judge if the ladder will enhance survival of red broods. The average age composition of the Brooks Lake red salmon escapements in the past nine years has included 3.5% four years, 37.9% five years, 54.7% six years and 3.9% seven years.

No noticeable effect by the ladder on the runs of king salmon or rainbow trout is in evidence. It seems likely that these negotiated the falls without too much difficulty. In the case of the other three species, however, a decided increase is apparent. Pinks and coho showed an immediate increase in the year that the ladder was first opened, with pinks reaching a peak previously unattained in 1953. Cohos and chums peaked in 1954.

There has been ample time for the first pinks passing the ladder in 1950 to reproduce themselves, since they are universally two-year fish, and the progeny of the 1950 brood would return in 1952. Assuming that the young return to the parental spawning grounds, there could be a buildup of pinks in the area, although this could be tempered by the fact that the species does not normally travel this far from salt water to spawn.

Chum salmon showed little increase in 1950, the year the ladder was opened. Chums, however, are a fairly early spawning species, occurring about the same time as reds. At the time of opening the ladder on August 7, 1950, it seems likely that most of the chum run would have been over. In 1954, the largest chum count on record into Brooks Lake was 95% complete by that date. It may seem surprising that the chums, a normally larger species than reds, should have had more trouble negotiating the falls. However, an item

of possible explanation is the fact that chums are nearly all in spawning colors and much more advanced in this respect at Brooks River than the reds, which are still bright and green at that point. It is normally the case that the fresher fish have more vigor than those approaching spawning maturity.

It is indeed surprising that coho salmon apparently were largely unable to leap the falls, particularly in view of the fact that they, like reds, are fresh, green, and in good condition at this point. These fish are, over most of their range, larger than red salmon and quite vigorous, although in this latitude they are smaller than normal being little larger than reds, a 50-fish sample at Brooks weir in 1955 averaging 58.8 cm. in total length as against 55.3 cm. for a red sample of the same size in 1955. This is possible due to the fact that growth conditions are poorer in the colder water than farther south, and while the reds compensate for this by spending more years in the ocean, no available coho age composition records for the area show any deviation from the normal ocean age; that is, one year at sea, although a greater period of freshwater life is indicated. Many coho in this latitude apparently migrate in their third or fourth year, whereas those in Canada, Washington and Oregon almost all migrate in their second year. Of 34 coho sampled in the 1955 Brooks weir escapement, 91.2% were four years old and the remainder five years. The two coho peaks of Figure 6 occurring in 1950 and 1954 fit a four-year periodicity.

TABLE 1.- Counts of Fish at Brooks Lake Weir

	Pad	King	Chum	Pink	Coho	Rainbow	Removal Date	
1940	97,496	11	0	8	0	64	9-14	
1	125,948	2	1	1	0	61	8-19	
2	360,299	3	0	8	0	60	8-16	
3	Weir Not Installed							
4	272,929	5	8	3	0	100	9-6	
5	184,319	11	4	1	1	47	8-23	
6	125,114	2	1	0	0	46	8-25	
7	87,354	0	0	2	1	98	8-25	
8	74,327	0	0	0	3	27	8-22	
9	51,021	7	0	0	2	70	8-16	
		fish ladder installed						
1950	55,894	7	1	20	24	45	8-25	
1	52,029	11	11	12	3	11	8-16	
2	49,844	7	9	9	4	23	8-18	
3	81,502	0	11	57	3	104	8-17	
4	62,366	4	22	41	135	62	8-22	
5	34,888	3	5	2	58	38	9-1	

Fig. 7 Comparative levels of fish counts through Brooks Lake weir before and after installation of ladder at falls.

